

# Exhibit 2

## APSCN Status and Future Directions Executive Overview 12/12/2006

### Background

- APSCN supplies both the Financial Management and the Student Management software to Arkansas school districts.
- To date, Pentamation is the only vendor who has provided these software packages.
- The initial implementation was text based green screens; this has been converted to a graphical point and click interface as of May 2006.
- A request for proposal for a possible replacement of the software in 2001 produced bids of \$21,000,000 and \$38,000,000.

### Current Administrative Software Costs

- The annual Pentamation licensing fee is \$728,707.
- For FY06, DIS hosting charges were about \$1,500,000 for the administrative software.
- An estimated \$820,000 of this is for the Financial software while \$680,000 is estimated for the Student software.
- Of total DIS charges to APSCN, only about 12% are for hosting services. Network costs are the vast majority of DIS charges to APSCN comprising over 80% of FY06 charges. Other significant APSCN DIS costs are for district technology support which was 7% of charges in FY06.

### eSchoolPlus Costs

- This software only replaces the Student Management portion of the software.
- Estimated eSchoolPlus costs
  - After an initial assessment, it is estimated that the annual hosting costs for the Pentamation eSchoolPlus software will be almost 3 times that of the current hosting costs for StudentPlus. Total known 5 year costs are \$14,000,000 with some large costs remaining unestimated.
  - These costs do not include conversion from Student Plus or conversions of other interfaces to the system.
  - These costs do not include end-user retraining costs, estimated at 30 – 50 days per district.
  - The number of servers to support would increase from about 7 to 126.
- The Delaware article
  - A Microsoft copyrighted article in 2004 outlined \$740,000 per year savings when the State of Delaware converted to Pentamation's eSchoolPlus.
  - Based on our phone call with Delaware, not all savings anticipated in 2004 have been realized.
  - Although having a reduced number of servers to support was one of the main savings outlined in the article, Delaware now has more servers than they had before the upgrade.

## **Miscellaneous**

- Web based software
  - While there are benefits to using web based software, the advantages over today's graphical point and click interface is small enough that this is not an urgent upgrade need for the system.
- A single database for all student and financial data
  - While there may be small benefits to using a single database for all district student and/or financial data, the data today can be viewed logically as a single database by the programs accessing it. The chances of finding a commercially available application with this feature are small because vendors do not typically develop student management software for a statewide implementation. A few financial software packages do exist which could meet this condition.
- Programming time can be saved by using a modern programming language
  - There are no restrictions on the common programming languages that are available for use with the system today. Java and .Net can both be used with the current database and operating system environment.

## **Future of the Administrative Software**

To date, the status of the administrative and reporting systems are:

- Effective 5/2006, all users have been upgraded to a graphical point and click interface to the software.
- Pentamation has assured support for our current software for at least the next 5 years.
- The Cognos Replacement of the IQ reporting product is underway and expected to be completed by December, 2006.
- The Cognos enabled state data warehouse is just now achieving the maturity to begin producing reports quickly, easily and accurately.
- The servers that support the administrative software were upgraded in 2006 in order to support the graphical software implementation and have an expected lifecycle of 3 – 5 years.

Given the current status of the hardware and software components of the system, a review and possible replacement of the software within the next five years would maximize the benefits while minimizing the costs of the upgrade.

The proposed five year plan for the system includes:

- Issue a request for quotes (RFQ) by January 1, 2007. The goal of the RFQ will be to identify possible solutions that would satisfy the technical and functional requirements and determine the costs associated with that solution.
- Based on the results of the RFQ and 5 year support considerations, establish a timeline and budget for new administrative software and/or future upgrades.
- Prepare a funding request for the next biennium budget.
- Once funding has been assured, begin implementation of the chosen solution in FY2010.

- Due to the 3 – 5 year period required before the chosen solution would be in place, the following actions will be taken to increase the usability of the current system:
  - A School Interoperability Framework (SIF) pilot will be completed and if successful and affordable **with existing budgeted funds**, SIF will be implemented for the districts to use. Will allow automated real-time sharing and updating of data between software packages from different vendors. This will prevent duplicate keying of data and improve data quality.
  - Web-based add-ons to the Pentamation software will be purchased **with existing budgeted funds**:
    - **Teacher Access Center**-allows teachers to use their web browser to enter attendance, manage grades and assignments, access student demographics, and send notes to parents. All information and updates are real-time and recorded on each student's historical record. Approximate software cost - \$318,800
    - **Home Access Center**-allows parents a web portal to see their student's test scores, attendance record, class work assigned, discipline records, etc. E-mail links are available throughout the center so parents can easily communicate with the school and teachers. Approximate software cost - \$217,000

*The costs estimated to be managed and billed by DIS in order to implement and support the above add-on products is estimated to be \$868,960 per year based on 30,000 users. These costs include acquiring and managing 54 new servers and approximately 270 new databases. If e-rate reimbursements continue at their current rate, the amount currently budgeted will be able to absorb these added costs.*

## **Background and history of the APSCN Administrative Software**

APSCN was founded in the mid-1990's with the goals to: 1) implement a statewide network connecting all Arkansas schools; 2) provide administrative services to support schools in processing their daily financial and student management records; and 3) assist districts in their state reporting.

### **The Original Software**

To meet goal 2, APSCN issued a request for proposal to find administrative software packages that met the requirements of the school districts in Arkansas. Pentamation Student Management (SMS) and Financial Management (FMS) Open Series software was selected through this process. The Pentamation software used the Informix 4GL programming language, Informix Dynamic Server database system running on Unix servers. The programs did not provide a graphical interface to the end user, instead the user interface consisted of text based "green screens".

To meet the district's needs for ad hoc reporting, a text based product called IQ was also purchased from Pentamation and incorporated into the SMS and FMS implementation.

To meet goal 3, APSCN programmers used the Informix 4GL programming language to read the Pentamation Informix databases containing the school district information to provide the data pulls used for the districts' State Reporting.

In addition to the programming required for State Reporting, additional add on reports and processes were programmed by APSCN programmers. They were written using a combination of Unix scripts and Informix 4GL. This included programming for Special Education which was attached onto the existing Pentamation databases.

After the system was implemented, school district personnel complained about the system, in particular that it did not match the point and click user interface of their other computer systems.

### **Searching for New Software - 2000**

In 2000, a project was undertaken to improve the administrative software in many areas. Of primary importance was the goal to move from the old "green screens" to a graphical point and click user interface. Web based software would provide the desired point and click user functionality while eliminating the maintenance and upkeep frequently associated with installing application specific client software.

In June 2001, a request for proposal (RFP) was issued that requested the 5 year cost for licenses and maintenance to accomplish:

- A completely web based solution
- Replacement of the existing SMS functions
- Replacement of the existing State Reporting functions

- Replacement of the existing Special Education functions
- Replacement of the IQ ad hoc reporting functions
- Services for the implementation, installation and training on the new software and processes.

A team of evaluators from Arkansas Department of Education, Arkansas Public School Computer Network, Department of Information Systems and Arkansas School Districts was created to evaluate the responses. Seven companies responded to the RFP. Through their responses alone, five of these companies were determined to have failed to meet fundamental requirements of the RFP. The initial determination by the evaluation team was that two companies had met the basic requirements of the RFP. Those vendors were invited onsite for demonstrations in September 2001. After the demonstrations were completed, the evaluation team determined that no software had been proposed that completely met the web based requirement. No award was made for the RFP and the project was placed on hold.

The responding vendors were somewhat inconsistent in their presentation of costs under the RFP. Because no “best and final offer” process was ever undertaken, exact costs for the project were never determined. As a frame of reference for the costs presented, of the two bidders who were brought in to provide demonstrations, the costs outlined in the responses were \$21,000,000 and \$38,000,000.

#### **Pentamation Software using Genero**

In the 2002-2003 timeframe, Pentamation announced they would no longer be supplying updates to the functionality in the SMS/FMS Open Series products. About this same time, they announced they had a new product which used the existing software programs and databases but which worked in conjunction with Genero, a product from the company 4Js, to provide a point and click user interface. These Pentamation products were marketed as Student Plus and Finance Plus. One benefit of the Genero product was that it provided a point and click user interface while attempting to minimize update requirements at the user’s workstation. ADE purchased the Plus versions of the Pentamation software and started a two-year roll out of the software. All districts were converted to both the Student and Financial versions of the Plus software by May in 2006.

#### **Improvements with Cognos**

As the Plus software was being implemented statewide, APSCN also undertook the implementation of Cognos to improve their reporting capabilities. There were two primary reasons for the selection and use of this tool. First, the IQ product incorporated with the initial Pentamation implementation no longer fit the graphical, point and click nature of the system and Cognos will replace this functionality for the districts. This conversion has not been fully implemented yet. Additionally, Cognos can be used along with an APSCN developed data warehouse to speed up production of state level reports. This increase in report delivery speed is largely due to Cognos’ ability to allow non-programming staff to create reports.

## Current APSCN Administrative Software Costs

- Previous years DIS expenditures for hosting and specifically for SMS/FMS
  - There are several components lumped together and billed as APSCN (account 0301); they are:
    - **Network.** This comprises the vast majority of the costs and provides video and Internet access.(81% in FY06)
    - **District technology support.** This provides assistance to the individual school districts to keep their district network operational. (7% in FY06)
    - **Application hosting support.** This includes servers, server support, disk and tape costs and personnel time for keeping the servers and databases operational. (12% in FY06) The applications are:
      - The Administrative Software which includes:
        - Pentamation Financial Management Software (FMS)
        - Pentamation Student Management Software (SMS)
        - APSCN State Reporting programs and databases (SIS)
      - Cognos Reporting environment
      - A centralized school district spam and virus filter
      - Support for Triand data transfers
      - The ADEMIS server used primarily by ADE for processing consolidated reporting and the Child Nutrition systems
      - Support for the Pentamation server that is owned by and housed at the Ft. Smith school district.
  - An estimate of DIS charges attributable to the Administrative software for FY2006 are:
    - FMS - \$820,051 per year
    - SMS - \$683,232 per year
    - SIS - \$152,506 per year
    - These costs do not include licensing fees that APSCN pays to Pentamation for FMS and SMS. These costs are \$728,707 annually.
- Expected increase in DIS costs in the next FY
  - DIS costs to ADE are expected to rise by about \$2.5 million in FY 2007.
  - The cost increases are due to charges associated with the network, not the administrative software. These cost increases are largely due to expansion of video capabilities in the network.

**eSchoolPlus Costs and other Pentamation Options**

<b>Pentamation Product Options</b>	<b>User Access</b>	<b>Application</b>	<b>Database</b>	<b>Comments</b>
<b><u>Student</u></b>				
StudentPlus (Current)	Thin client; Genero	4GL; Genero; Unix	Informix/Unix	
eSchoolPlus	Web based	.NET; Windows Server 2003	SQL Server/Windows Server 2003	New code base; new/changed functionality
<b><u>Finance</u></b>				
eFinancePlus (Current)	Thin client; Genero	4GL; Genero; Unix	Informix/Unix	
eFinancePlus	Web based; Genero	4GL; Genero; Unix	Informix/Unix	Same 4GL code base as currently deployed
eFinancePlus	Web based or Thin client; Genero	4GL; Genero; Windows	SQL Server/Windows Server 2003	Same 4GL code base as currently deployed

○ Microsoft Versions of Pentamation Software

- The .NET framework version of the software is only offered for the Student Management software.
- Financial Management, even if converted to run on Microsoft operating system and database, remains a Genero based product. There are options for running the Financial Software using all Microsoft products but with the requirement to maintain the Genero application programs in place today.
- A complete .NET Pentamation implementation is not possible.
- Because eSchoolPlus is a new database structure and application code base it would have this impact on the current implementation:
  - Re-training of district users would be required. Pentamation estimates this training requirement as 30 days for districts with less than 3,000 students and 50 days for students with more than 3,000 students.
  - APSCN programming for State Reporting would have to be rewritten to use the data in its new format.
  - APSCN programming for Special Education would have to be rewritten to use the data in its new format.

- Cognos data warehouse extracts would have to be revised to use the data in its new format.
  - The Cognos replacement of IQ reporting would have to be completed before the move to eSchoolPlus could take place.
  - Scripts and programs for maintaining databases or providing add on functionality to the system would have to be redeveloped for the new architecture.
- Delaware/Microsoft article
    - A Microsoft copyrighted article written in 2004 outlined a \$740,000 per year savings by the State of Delaware by moving to the new all Microsoft version of the Pentamation eSchoolPlus software.
    - It should be noted that Delaware's anticipated annual savings were more than the total DIS charges for SMS hosting in FY06.
    - It should also be noted that Delaware converted from Student Open series, not StudentPlus.
    - The article claimed savings in two areas: 1) fewer servers to support and 2) reduced helpdesk/end user support costs.
    - State of Arkansas placed a call to Bruce Dacey at Delaware, who was quoted in this article, for more specifics on their savings.
    - Delaware was using an uncommon, expensive version of Unix.
    - Delaware said that the savings outlined in the article had not been realized and the hardware had "blossomed" in the two years since the article was written. They have more servers today than they had before the upgrade to eSchoolPlus.
    - Helpdesk/end user support savings in Delaware was attributed to having to use Pentamation to support districts an average of 2 weeks per month before the conversion.
    - Speedier updates of the state database were due to poor performance times on the data pulls. This restricted them to weekend updates only. Mr. Dacey said he suspected he could have made similar improvements with the old system.
    - Even today, one of Delaware's 19 school districts is still not using the eSchoolPlus software.
  - Costs of moving to Microsoft versions of Pentamation software
    - eSchoolPlus
      - Monthly hosting charges for eSchoolPlus are estimated to be 2.5 – 3 times higher than Student Plus (\$680,000 vs. a minimum of \$1,719,600) Estimated costs are detailed in Attachment A
      - Upfront licensing fees for eSchoolPlus are \$2,160,000 with annual maintenance of \$435,000.
      - Costs for data conversion from StudentPlus to eSchoolPlus are unknown as well as costs for converting other interfaces such as State Reporting pulls, Special Education and Cognos.



- End user retraining would be a significant unidentified cost; Pentamation estimates 30 days of retraining is required for districts with less than 3,000 students and 50 days for districts with more than 3,000.
    - Total known 5 years costs for eSchoolPlus is estimated to be \$14,000,000.
    - The number of servers required to run the Student Management software would increase from about 7 to 126.
  - eFinancePlus - Microsoft Version
    - Pentamation has been asked to provide assistance in determining costs for a redeployment of Arkansas' Financial software to run with Microsoft hardware and software.
    - At this time, that information has not been received.
- Conclusions about moving to all Microsoft versions of Pentamation software.
  - With the known annual increase in costs for hosting eSchoolPlus, the considerable upfront costs that will be incurred in the conversion and the significant training time required to move from the StudentPlus to the eSchoolPlus version of the Pentamation software, there appear to be few advantages to APSCN to move directly from one Pentamation software version to another at this time.
  - A review of possible solutions and their costs should be completed before any administrative software changes are initiated.

### Miscellaneous

- Web based software
  - Web based software is software that uses a web browser, such as Internet Explorer, as the interface to the software.
  - This means no extra software has to be loaded onto the user's workstation to use the software.
  - Web based software generally reduces support costs due to fewer hours spent keeping the user's workstation software up to date.
  - While there are benefits to using web based software, the advantages over today's graphical point and click interface is small enough that this is not an urgent upgrade need for the system.
  - A common misunderstanding of web based software is that by simply being called web based the software can be used from any location that has Internet access.
  - Network security concerns are more likely to be responsible for lack of application access from any Internet location than whether the software is web based or client server. The application architecture, whether web based or not, has a larger impact on this availability than the fact that it is used with a web browser.

- A single database for all district student and/or financial data
  - With today's databases and the ready availability of open database connectivity (ODBC), data that is physically separated by either database or database management system can be viewed by the programs accessing it as a single logical database.
  - Because school district software is usually marketed to a single district and not an entire state, it is unlikely that any student management or integrated student/financial system software exists that would allow the incorporation of an entire state's data into a single database. There are a few commercially available financial software packages that could be implemented in a single statewide database.
  - While there may be small benefits to using a single database for all student and/or financial data, the benefits can largely be achieved by developing programs that view the databases as a single database. In addition, the chances of finding a commercially available student management system with this feature are small.
  
- Programming time can be saved by using a modern programming language
  - There are no restrictions on the use of common programming languages for use with the system today. Java and .Net can both be used in the current database and operating system environment.

**Attachment A**

**eSchoolPlus Five Year Estimate**

**One Time Costs**

	<b># Needed</b>	<b>Rate</b>	<b>Total</b>	
eSchoolPlus License			\$2,160,000.00	
Arkansas Custom Programming			\$25,000.00	
Server Initial Setup - Tier 3	22	\$1,000.00	\$22,000.00	
Server Initial Setup - Tier 1	104	\$750.00	\$78,000.00	
Windows 2003 External Connector License			unknown	
Conversion from Student Plus			unknown	
				30 days for district with less than 3,000 students; 50 days for district with more than 3,000 students.
End User Training			unknown	
Redevelopment of State Reporting pulls			unknown	Note: Additional servers may be required
Redevelopment of Special Education programming			unknown	Note: Additional servers may be required
Redevelopment of Cognos EPMS extracts			unknown	
Development/redevelopment of Cognos and/or IQ reports			unknown	
<b>Total One Time Costs</b>			<b>\$2,285,000.00</b>	

**First and Second Year Recurring Costs**

Software License - eSchoolPlus			\$435,000.00	
SQL Server - Maintenance	88	6,675.50	\$587,444.00	Enterprise Edition; not standard edition; cost for Year 2; price drops after Year 2
Windows Server - maintenance included in hosting rate				
Active Directory	30000	\$7.10	\$213,000.00	Assume 30,000 users
Windows 2003 External Connector Maintenance				
Database Servers; 22 4-processors each; Tier 3	22	\$900.00	\$237,600.00	64 active processors + 24 passive processors running on 22 servers; includes Windows server licensing, floor space, electrical, disaster recovery (???)
Application Servers; 48 1-processor; Tier 1	48	\$275.00	\$158,400.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
Task Servers; 48-1 processor; Tier 1	48	\$275.00	\$158,400.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
HAC Server; 4 1-processor; Tier 1	4	\$275.00	\$13,200.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
File Servers; 4 1-processor; Tier 1	4	\$275.00	\$13,200.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
Disk Storage			\$100,000.00	
Tape Storage			\$30,000.00	
Host and Server Support - Labor			\$600,000.00	Estimated labor costs based on current support levels but with additional servers to administer
<b>Annual Total/Each Year 1, 2</b>			<b>\$2,546,244.00</b>	

**Third, Fourth, Fifth Year Recurring Costs**

Software License - eSchoolPlus			\$435,000.00	
SQL Server - Maintenance	88	\$2,225.00	\$195,800.00	Enterprise Edition; not standard edition

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Windows Server - maintenance included in hosting rate				
Active Directory	30000	\$7.10	\$213,000.00	Assumes 30,000 users
Windows 2003 External Connector Maintenance				
Database Servers; 22 4-processors each; Tier 3	22	\$900.00	\$237,600.00	64 active processors + 24 passive processors running on 22 servers; includes Windows server licensing, floor space, electrical, disaster recovery (????)
Application Servers; 48 1-processor; Tier 1	48	\$275.00	\$158,400.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
Task Servers; 48-1 processor; Tier 1	48	\$275.00	\$158,400.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
HAC Server; 4 1-processor; Tier 1	4	\$275.00	\$13,200.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
File Servers; 4 1-processor; Tier 1	4	\$275.00	\$13,200.00	Includes Windows Server licensing; floor space, electrical, disaster recovery (???)
Disk Storage			\$100,000.00	
Tape Storage			\$30,000.00	
Host and Server Support - Labor			\$600,000.00	Estimated labor costs based on current support levels but with additional servers to administer
<b>Annual Total/Each Year 3, 4, 5</b>			<b>\$2,154,600.00</b>	
<b>Total 5 Year Cost</b>			<b>\$13,841,288.00</b>	

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## APSCN Chart of Accounts Considerations for Legislative Needs

The information listed below is an initial review of legislative needs for information from the accounting system for the school districts. The requested information is a starting point for a discussion of how the accounting system can meet the needs of the legislative body as it seeks to make informed public policy for education. On April 20, 2006, Senator Argue listed the following concerns: 1) the data input technology should be modernized; 2) system auditing for coding errors should be implemented; 3) identification of components of expenditures that relate to adequacy should be possible; 4) information needed for funding and policy decisions should not be unavailable strictly to provide increased flexibility to districts; and, 5) the availability of the information must be timely. These concerns were amplified and endorsed by Senator Broadway and Representatives Mahony and Cook.

The requests are primarily based on information that is being manually collected for the study to be produced by Lawrence O. Picus and Associates (Picus study) and upon information needs indicated in a study produced by Allan Odden, et al., published in the Winter 2003 Journal of Education Finance, entitled "Defining School-Level Expenditure Structures That Reflect Educational Strategies". While some of these changes may require further study, many of these requests can and should be implemented prior to the July 1, 2006 cut-off for changes to the chart of accounts.

In addition to the information requested in this document, consideration should be given to recommendations from Legislative Audit and the Department of Finance and Administration. Other consultants are also under consideration for assistance in this review. Some of the needs listed below may be available from within the system as it exists now.

### **Information Needs:**

Distinguish between instructional costs for "38 units required by standards" and costs for additional classes.

Distinguish between costs for core-teachers and costs for teaching electives. (Picus Study)

The two needs listed above might be accomplished by adding one of four program codes to include a code for 1) required by standards, core subject; 2) required by standards, non-core subject; 3) not required by standards, core subject; and 4) not required by standards, non-core subject.

Distinguish between 70% classroom teachers and all Certified FTE.

This might be accomplished by adding Object Classification Code 61130 for Regular Employees for "Classroom Teacher meeting 70% designation" and changing the descriptor for 61110 from "Certified" to "Certified other than 61130". Similar revisions could be made to each of the related object classifications.

## APSCN Chart of Accounts Considerations for Legislative Needs

### Information Needs (Continued):

Distinguish between district costs that provide shared resources to schools and those that are administrative, i.e. a speech pathologist, paid by the district rather than a school, who serves multiple schools within the district. (Picus Study)

This might be accomplished with a program code.

Be able to determine which personnel and the number of personnel participating in the health insurance program.

Be able to determine expenditures for benefits costs for all personnel individually so that benefits costs are available for any group of personnel being studied.

The expenditure system and the Student Information System should contain consistent and unique teacher identifiers.

Coding for substitutes used in support of Professional Development should be coded separately from other substitutes.

Expenditures should be reported by function and program at the school level as well as district level.

These positions must be broken out with the ability to determine the number of FTE's for each listing. Salary with corresponding benefits must also be available for each listing. (Picus Study)

#### I. **Core Academic Teachers**

#### II. **Specialist and Elective Teachers**

- A. Art/Music/PE
- B. Drama/Foreign Language/Technology/Health
- C. Vocational
- D. Secondary Vocational Center
- E. Drivers Education
- F. Other

#### III. **Library Staff**

#### IV. **Extra Help Staff (work with students)**

- A. Certified Teacher Tutors
- B. Non-Certified Tutors
- C. Resource Room Teacher – Title I
- D. Resource Room Aide – Title I
- E. Resource Room Teacher – Other part-day pull-out programs
- F. Resource Room Aide – Other part-day pull-out programs
- G. ELL Class Teachers

## APSCN Chart of Accounts Considerations for Legislative Needs

- H. Aides for ELL
  - I. Special Ed. Teacher (Self-contained for severely disabled students)
  - J. Special Ed. Aides (self-contained)
  - K. Special Ed. Inclusion Teachers
  - L. Special Ed. Inclusion Aides
  - M. Special Ed. Resource Room Teachers
  - N. Special Ed. Resource Room Aides
  - O. Extended Day Teachers
  - P. Extended Day Other Classified Staff
  - Q. Summer School Teachers
  - R. Summer School Classified Staff
- V. **Alternative Programs Located in the School**
- A. Alternative Program Teachers
  - B. Alternative Program Aides
  - C. Alternative Program Secretaries
- VI. **Teacher Development Services**
- A. Instructional Facilitators/Coaches
- VII. **Student Services Staff**
- A. Guidance
  - B. Attendance/dropout
  - C. Social Workers
  - D. Nurse
  - E. Parent advocate/community liaison
  - F. Psychologist
  - G. Speech/OT/PT
  - H. Health Asst.
  - I. Non-teaching aides (e.g. Aides who help students board buses.)
- VIII. **Administration**
- A. Principal
  - B. Assistant Principal
  - C. Secretary
  - D. Clerical Staff
  - E. Technology Coordinator.
  - F. Security
  - G. Custodians
  - H. Building Engineer/Maintenance Staff
  - I. Bus Drivers
  - J. Food Service Personnel

# Chart of Accounts Considerations for Legislative Needs

A report prepared for

APSCN

by

AASBO Coding Committee

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October 6, 2006

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## Introduction

Mr. Bill Goff, Director of Arkansas Public School Computer Network (APSCN), convened the first meeting of the AASBO Coding Committee on June 19, 2006. Mr. Goff explained that the purpose of this committee was to respond and make recommendations regarding a document entitled "APSCN Chart of Account Considerations for Legislative Needs" compiled by Ms. Jerri Derlikowswki (see attached). In addition to this document Mr. Goff also asked the committee to provide recommendations regarding the definition and amount of unallocated balance that school districts should carry forward. Other documents which the committee considered were a study produced by Allan Odden, et al., published in the Winter 2003 Journal of Education Finance, entitled "Defining School Level Expenditure Structures That Reflect Educational Strategies", Act 28 of the First Extraordinary Session of 2006, other Arkansas Laws, and current standardized codes for various elements in Pentamation Software.

The committee also met with Senator Jim Argue and Representative Jodie Mahony to expand on the general areas of concern and discuss some of the terms in the specific information components which were unclear. At their request, the committee met with Dr. Larry Picus and Ms. Colleen Anderson to discuss methods and parameters used to collect similar data in Wyoming.

The committee identified three major topics for discussion. They are:

- Areas of General Concern
- Specific Information Components
- Unallocated Balances.

This report will contain the discussion, conclusions, and recommendations of the committee regarding each of the identified items.

The committee focused on three main considerations while drafting the recommended best solutions:

- Definitions should be as specific as possible. This helps to ensure that data are accurate and an appropriate measure of the information requested by the legislature.
- The cost of implementing the solution should be commensurate with the data obtained. Consideration was given to the efficiency of the collection method as well as the collection instrument itself. A considerable amount of time was spent discussing the level of detail and what data were actually needed to achieve the format desired.
- Timeliness and availability of data were considerations in all of the discussions.

The AASBO Committee appreciates the opportunity to propose possible alternatives and responses to the items listed in the "APSCN Chart of Accounts Considerations for Legislative Needs".

## I. Areas of General Concern

### A. Data Input Technology.

Legislators expressed concern that technology should be updated when efficiency or data availability could be enhanced. The committee discussed some of the most recent upgrades to the Pentamation system and some possible items for future consideration. The possibility of new software altogether was discussed. Recent updates to Pentamation include Windows compatibility, download and upload functionality with Excel, Cognos Report Writer, and the current Data Warehouse project at APSCN. All of these items improve the efficiency of data collection, and many of them make data more available. Continued efforts to add modules and purchase updates from Pentamation should be supported. New software cost analysis should include the cost of software, hardware, retraining APSCN and District staffs, and initial setup and system alignment with Arkansas student and financial data needs. Availability of significant new functionality in any other software would be required to exceed the high costs of new software options.

**The committee recommends continuing with Pentamation software at this time.**

### B. System Auditing for Coding Errors.

The current system includes several layers of system auditing. The Pentamation software contains edit checks for account numbers that are not in the chart of accounts, APSCN applications within Pentamation software include exception reports for expenditures and revenues that do not meet the current coding requirement and all SIS Cycles 1-7 contain edits which prevent filing with certain errors. In addition to the automated system auditing, recent APSCN documentation and notification process for Arkansas Financial Accounting Handbook and training programs have substantially improved. Required training for all financial staff should also impact compliance with coding requirements. While some errors can be detected systemically, many coding errors are based on lack of understanding, lack of clarity in communications and definitions, and timing of changes. The committee understands that legislation impacting the first year of each biennium is often unfinished until near year end. However, continual change without adequate implementation time decreases the reliability and comparability of data collected.

**The committee recommends:**

- **APSCN should continue to communicate through training and notification procedures in place.**
- **APSCN will consider developing some statistical models that would indicate possible errors and make these available to Districts prior to submissions of Cycle Reports.**
- **Changes to data requirements should be completed and communicated not less than 90 days prior to the start of the fiscal**

**year, and if possible, all major changes should be made 180 days prior to start of the fiscal year.**

*C. Identification of expenditures that relate to adequacy.*

The committee's discussion surrounding this issue concerned the definition of adequacy. While the term adequacy may be defined for legal purposes in a general way, it is not sufficiently detailed to identify the expenditure elements. Ms. Jerri Derlikowski provided the joint committee's definition of educational adequacy from the Act 57 Report as follows:

1. The standards included in the state's curriculum frameworks, which define what all Arkansas students are to be taught, including specific grade level curriculum and a mandatory 38 Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level;
2. The standards included in the state's testing system. The goal is to have all, or all but the most severely disabled, students perform at or above proficiency on these tests; and
3. Sufficient funding to provide adequate resources as identified by the General Assembly.

It was also noted in the Act 57 Report that this definition of educational adequacy is consistent with the statutory language quoted by the Arkansas Supreme Court in the Lake View case. While this definition may be adequate for some purposes, it is not specific enough to allow for detailed expenditure identification. There also seem to be areas that are part of adequacy, such as facilities, transportation, and other support areas that are not addressed in this definition. Adequacy is such a broad term that some of the discussion suggested defining specifically what is not part of adequacy, which might be the most efficient method to use.

**The committee recommends:**

- **An appropriate group from APSCN, Department of Education, and any other organization deemed necessary should be assigned to define the specific categories of expenditures to include.**
- **Once the term is defined, the collection method should be designed and put in place. The AASBO Coding committee believes that much of this can be achieved by using the course codes and job codes in a process similar to the recommendation for obtaining core and non-core teacher data described later in this report.**

*D. Information needed for funding and policy decisions should not be unavailable strictly to provide increased flexibility to districts.*

One of the most difficult challenges of using one data system for virtually all school districts is accommodating many different management styles and sizes. In addition, the state of Arkansas also uses this data system for state, federal and

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legislative data needed. Flexibility at the district level is not an issue of local control but it is more a function of efficiency and operational modifications necessary to allow the largest and smallest districts to use the same software. The committee is sensitive to accountability required, with the large investment that the Legislature and Taxpayers of Arkansas have made in education. Each user of the system must be aware and considerate of the other users' needs. The committee believes that this can best be accomplished through careful design and input from all of the stakeholders.

**The committee recommends that a committee similar to the current one be established. A variety of stakeholders discussing the needs will ultimately yield a solution that can be practically applied and used by all of the required agencies.**

E. *Information must be timely.*

The committee discussed the information needed for timely adequacy studies, such as FTE's for annual instructional staff, average teachers' salary, and actual revenue and expenditure data. Currently this information is not required until September 15<sup>th</sup> following the fiscal year end. This allows local districts approximately 60 days to close the year, record year end adjustment, and perform annual reconciliations. In addition, budgets for the new fiscal year are also being prepared. APSCN currently collects all of this data in Cycle 1 which is due on September 15<sup>th</sup>. The committee discussed methods that could be used to separate the reporting on these items to meet the deadlines that Ms. Derlikowski set forth.

**The committee recommends that data for FTEs and average teachers' salaries, currently collected on "Page 36/37 Report" be collected by July 31 of each year. If necessary actual revenue and expenditure reporting could be separated from the budget reporting and be required no earlier than August 31. Budget reporting which requires board review and approval should be due not earlier than September 30. APSCN must have the programs necessary to collect the data prepared and available at least 30 days prior to the submission date.**

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## II. Specific Information Components

- A. Distinguish Costs for “38 units required by standards”, core teachers and non-core teachers.

In order to distinguish between instructional costs for core, electives (non-core), or the 38 units required by the standards, the committee recommends that the six-digit course code presently used in the Student Management System be used to determine the percentage of instructional time in each of these areas. The resulting FTE could then be used in conjunction with the average teacher salary generated by the Financial Management System to determine the salary cost for each of these areas. Other instructional costs such as textbooks, supplies, etc., could also be allocated using this method. In addition, this method of collection and allocation could be used to collect data regarding adequacy addressed in the general concerns section of this report.

**The committee recommends that using the existing coding structure in the Student Management System will provide the requested data in a timely manner.**

- B. Distinguish between 70% classroom teachers and all certified FTE staff.

**The committee recommends that data differentiating classroom teachers and all other certified FTE staff be obtained directly from the data collected in the process described in the preceding item.**

- C. Distinguish between district costs that provide shared resources to schools and those that are administrative.

For economical reasons districts choose to share certain resources between and among school campuses, i.e., speech pathologist, nurses, etc... For smaller districts, or in situations where multiple locations are not an issue, costs are simply charged and reported using the location code logic. However, in larger districts situations occur where the district employ personnel who work in many sites. These situations necessitate charging costs to all affected locations, often creating minimal charges at multiple sites.

**The committee recommends the creation of a program code within the 770—779 range denoting shared resources. Shared resources for multiple sites could be charged to these locations and could be allocated on a reasonable basis. Districts who wish may continue the practice of charging directly to the school site. This allows flexibility for efficiency, regardless of size.**

- D. Be able to determine which personnel and the number of personnel who are participating in the health insurance program.

The current system contains data indicating which personnel are participating in the health insurance program. This information is also available from the Department of Finance – Employee Benefits Division. Data that are not currently available are employees who are eligible but are not participating. APSCN has already arranged for a field to be added to the payroll screens to collect these data.

**The committee recommends that districts be notified about this field prior to 2007-2008 fiscal year and programming be established to collect this data for the 2007-2008 year in one of the Cycle reports.**

- E. Be able to determine expenditures for benefits costs for all personnel individually so that benefits costs are available for any group of personnel being studied.

**These data are currently available and collected in the Cycle 1 report.**

- F. The expenditure system and the Student Information System should contain consistent and unique teacher identifiers.

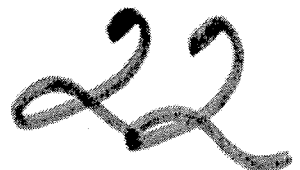
**This information is currently in the FMS Pentamation software. It was added for fiscal year beginning July 1, 2006.**

- G. Coding for substitutes used in support of Professional Development should be coded separately from other substitutes.

The Pentamation software enables a District to add/edit an employee's leave for each pay period through payroll or through the attendance options. The software also allows for entering timecards for substitutes while editing the employees' leave information.

- The budget unit for distributing the substitute's pay, as identified in the employee's primary rate screen will default for substitute charging (Ex: 1000-1130-023-000-00 61710).
- To override the default distribution, enter the budget unit that applies, such as the budget unit for Professional Development funds (Ex: 1223-2213-000-000-00 61710).

A District could also do a journal entry or a payroll redistribution at fiscal year end to move substitute pay from an instructional budget unit to a Professional Development budget unit using a reasonable allocation method. Each district would be responsible for providing this methodology if required.



**The committee recommends that districts be notified as soon as possible that they will be required to calculate the cost of substitutes used for professional development beginning with the 2007-2008 fiscal year. They may code directly to appropriate fund and function codes, or they may use a reasonable method of allocation and journal entry items at year end. Each district would be allowed to choose the most efficient process, and the information would be available.**

H. Expenditures should be reported by function and program at the school level as well as district level.

Effective in fiscal year 2000 the following functions for salary and benefits required building/location level coding.

(Reference Director's memo # FIN-00-033)

1100 – 1399 Instruction  
1500 – 1999 Instruction  
2000 – 2199 Support Services – Student  
2400 – 2499 Support Services – School Administration

Effective in fiscal year 2004 the following functions for all other expenditures in addition to salary and benefits required building/location coding.

1100 – 1399 Instruction  
1500 – 1999 Instruction  
2000 – 2199 Support Services – Student  
2400 – 2499 Support Services – School Administration

**The information is currently available in the system.**

I. Positions must be broken out with the ability to determine the number of FTEs for each listing. Salary and corresponding benefits must also be available for each listing.

**The committee recommends:**

- **Expand the use of the identifier on the course code or job code(non- certified staff) similar to the recommendation for collecting data on core and non-core teachers in a previous item.**
- **In addition to this the “Page 36-37 Report” currently collected in Cycle 1 should be reviewed and revised to collect the needed salary and benefit data. The committee would suggest a group of practitioners from a variety of districts be used to examine the collection document and method for necessary revisions.**

### III. Unallocated Balances

Act 28 of 2006 requires the study of unallocated balances to also “consider the amount, if any, appropriate for a public school district to maintain as a fund balance for future contingencies.” Future contingencies are understood to include unplanned expenditure requirements. However, equally pertinent to the discussion is the amount needed for cash flow management. The timing of planned, scheduled expenditures such as payrolls and debt service payments are a critical consideration in determining the appropriate amount of fund balances.

Act 28 of 2006 also requires school districts, open-enrollment charter schools, and education service cooperatives to maintain the following information related to fund balances:

1. Sources of funds maintained as fund balances, to the extent practicable;
2. Reasons for maintaining, instead of spending, the fund balances;
3. The amount of funds transferred between various fund balances;
4. The amount of fund balances dedicated for the construction, maintenance, or repair of academic or athletic facilities.

This information is required to be reported to the state Department of Education by September 15<sup>th</sup> of each year.

#### A. Defining Unallocated Balances.

If the term “allocate” were defined as “setting something apart for a specific purpose,” then “Unallocated Balances” would be funds not set apart for a specific purpose. Typically funds remaining in the Operating Fund at a fiscal year-end would be “unallocated” unless those funds are restricted for a specific purpose. Categorical Funds (NSLA, ELL, ALE, Professional Development) would be examples of Operating Fund balances that are restricted for a specific purpose. Grant proceeds from state or private sources typically are restricted for a specific purpose and may also be included in the Operating Fund.

Revenues deposited in funds, other than the Operating Fund, are typically for a specific purpose, and therefore the balances of those funds would not be considered “unallocated.” Examples include Debt Service Fund, Building Fund, Capital Outlay Fund, Dedicated Maintenance and Operations Fund, Federal Funds, Student Activity Funds, and Food Service Fund.

In order to report unallocated balances it is necessary to define “Unallocated Balances”. This can be accomplished by selecting the Fund and Source of Fund codes that indicate restricted or unrestricted revenue. From that unallocated balance other amounts such as reserves for encumbrances and reserves for Qualified Zone Academy Bonds would need to be deducted in order to arrive at unallocated balances. It would be necessary for Districts to record these specified



reserves in specific reserved fund balance accounts. It is then a matter of grouping and totaling the unrestricted fund/source of fund unreserved balances in order to report the total unallocated balances at year-end.

**The committee recommends:**

- **All funds other than unrestricted Operating Funds be excluded.**
- **Guidelines for qualified reserved fund balances be established and communicated to districts (for example, Encumbrances and Qualified Zone Academy Bond Escrows).**
- **Allow districts to reserve up to 6 months of debt service requirements which will provide for cash flow considerations.**
- **School Districts, Open-Enrollment Charter Schools, and Education Service Cooperatives should receive those specific coding requirements well in advance of the year they become effective.**

B. *Sources of funds maintained as fund balances.*

**The current system of Fund/SOF will provide the sources of funds maintained.**

C. *Reasons for maintaining, instead of spending, the fund balances.*

**The committee recommends a narrative report listing reasons be sent to the Department of Education annually.**

D. *The amounts of funds transferred between various fund balances.*

**Coding requirements are currently in place to account for transfers between funds. It may be necessary in some cases to expand the account codes used to track transfers in and transfers out for specific revenue sources. These should be used only as needed to avoid complexity.**

E. *The amount of fund balances dedicated for the construction, maintenance, or repair of academic or athletic facilities.*

**Coding requirements are currently in place to account for these dedicated funds.**

F. *The amount, if any, appropriate for a public school district to maintain as a fund balance.*

The appropriate amount of unallocated fund balance as of any fiscal year end is dependent on several variables. These variables include but are not limited to:

- Timing of revenue receipts
- Timing of scheduled expenditures such as debt service payments or encumbrances

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- Cash flow for normal expenditures until state revenues begin at the end of August
- Cash flow to provide funding for federal programs that do not begin distribution until October, November, or even December
- Funds for additional expenditures required by substantial growth until state revenues are distributed in December and June
- Funds to assist with loss of students for which no corresponding decreases in expenditures are available
- Funds for emergencies
- Funds that will allow continuation of programs and implementation of salary schedules through freezes in state and federal funding sources

These variables are significant and unique to each district. The committee received input from several sources outside the committee regarding this matter. Requiring a particular unallocated balance could promote, if not mandate, poor financial management and fiscally irresponsible behavior. Fund balances are a culmination of all past years revenues in excess of expenditures and should be viewed as one-time sources of funds. Funding continuing expenditures such as salaries and benefits from fund balances should be approached with the knowledge that some other source of revenue or expenditure reduction would be needed to continue into the future. Based on these variables the committee could not recommend a particular amount that would be appropriate.

**The committee recommends that the first step in determining an appropriate balance amount is to define and track unallocated balances as compared to annual expenditures. After careful study and consideration it may be possible to determine a reasonable range of appropriate balances in relation to annual expenditures. In addition, separating obviously restricted funds as recommended earlier in this section will help to clarify this issue.**