

U.S. Department of Education

Washington, D.C. 20202-5335



APPLICATION FOR GRANTS UNDER THE

STATEWIDE LONGITUDINAL DATA SYSTEMS

CFDA # 84.372A

PR/Award # R372A090004

Grants.gov Tracking#: GRANT10075524

OMB No. 1890-0004, Expiration Date:

Closing Date: SEP 25, 2008

****Table of Contents****

Forms

1. <i>Application for Federal Assistance (SF-424)</i>	c1
2. <i>Standard Budget Sheet (ED 524)</i>	c5
3. <i>SF 424B - Assurances Non-Construction Programs</i>	c7
4. <i>ED 80-0013 Certification</i>	c9
5. <i>Dept of Education Supplemental Information for SF-424</i>	c10

Narratives

1. <i>Project Narrative - (Abstract Narrative...)</i>	c11
<i>Attachment - 1</i>	c12
2. <i>Project Narrative - (Project Narrative...)</i>	c13
<i>Attachment - 1</i>	c14
3. <i>Project Narrative - (Other Narrative...)</i>	c39
<i>Attachment - 1</i>	c40
<i>Attachment - 2</i>	c56
4. <i>Budget Narrative - (Budget Narrative...)</i>	c119
<i>Attachment - 1</i>	c120

This application was generated using the PDF functionality. The PDF functionality automatically numbers the pages in this application. Some pages/sections of this application may contain 2 sets of page numbers, one set created by the applicant and the other set created by e-Application's PDF functionality. Page numbers created by the e-Application PDF functionality will be preceded by the letter c (for example, c1, c2, c3, etc.).

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application		* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision		* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify) <input type="text"/>	
* 3. Date Received: 09/22/2008		4. Applicant Identifier: <input type="text"/>			
5a. Federal Entity Identifier: <input type="text"/>			* 5b. Federal Award Identifier: <input type="text"/>		
State Use Only:					
6. Date Received by State: <input type="text"/>		7. State Application Identifier: <input type="text"/>			
8. APPLICANT INFORMATION:					
* a. Legal Name: Arkansas Department of Education					
* b. Employer/Taxpayer Identification Number (EIN/TIN): 71-6007390			* c. Organizational DUNS: 781558564		
d. Address:					
* Street1:	8221 Ranch Boulevard				
Street2:	ADE Technology Center				
* City:	Little Rock				
County:	<input type="text"/>				
* State:	AR: Arkansas				
Province:	<input type="text"/>				
* Country:	USA: UNITED STATES				
* Zip / Postal Code:	72223				
e. Organizational Unit:					
Department Name: <input type="text"/>			Division Name: Research and Technology		
f. Name and contact information of person to be contacted on matters involving this application:					
Prefix:	Mr.	* First Name:	James		
Middle Name:	<input type="text"/>				
* Last Name:	Boardman				
Suffix:	<input type="text"/>				
Title:	Assistant Commissioner				
Organizational Affiliation: Arkansas Department of Education					
* Telephone Number:	(501) 371-5005	Fax Number:	(501) 371-5010		
* Email:	Jim.Boardman@arkansas.gov				

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

U.S. Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.372

CFDA Title:

Statewide Data Systems

*** 12. Funding Opportunity Number:**

ED-GRANTS-062608-001

* Title:

Statewide Longitudinal Data Systems Grant Program CFDA 84.372

13. Competition Identification Number:

84-372A2009-1

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

State of Arkansas

*** 15. Descriptive Title of Applicant's Project:**

Arkansas Department of Education's Statewide Longitudinal Data System Enhancement Project

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date: * b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="1,628,096.00"/>
* b. Applicant	<input type="text" value="5,478,398.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="7,106,494.00"/>

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

Yes No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

 ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

Application for Federal Assistance SF-424

Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.



U.S. DEPARTMENT OF EDUCATION
BUDGET INFORMATION
NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1890-0004

Expiration Date: 06/30/2005

Name of Institution/Organization:
 Arkansas Department of Education

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

SECTION A - BUDGET SUMMARY
U.S. DEPARTMENT OF EDUCATION FUNDS

Budget Categories	Project Year 1(a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	\$ 180,000	\$ 184,500	\$ 190,035	\$ 0	\$ 0	\$ 554,535
2. Fringe Benefits	\$ 57,204	\$ 58,319	\$ 59,691	\$ 0	\$ 0	\$ 175,214
3. Travel	\$ 9,500	\$ 9,500	\$ 9,500	\$ 0	\$ 0	\$ 28,500
4. Equipment	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
5. Supplies	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
6. Contractual	\$ 1,233,383	\$ 1,252,386	\$ 1,272,338	\$ 0	\$ 0	\$ 3,758,107
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
9. Total Direct Costs (lines 1-8)	\$ 1,480,087	\$ 1,504,705	\$ 1,531,564	\$ 0	\$ 0	\$ 4,516,356
10. Indirect Costs*	\$ 148,009	\$ 150,470	\$ 153,156	\$ 0	\$ 0	\$ 451,635
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 1,628,096	\$ 1,655,175	\$ 1,684,720	\$ 0	\$ 0	\$ 4,967,991

***Indirect Cost Information (To Be Completed by Your Business Office):**

If you are requesting reimbursement for indirect costs on line 10, please answer the following questions:

(1) Do you have an Indirect Cost Rate Agreement approved by the Federal government? Yes No

(2) If yes, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement: From: 7/1/2007 To: 6/30/2010 (mm/dd/yyyy)

Approving Federal agency: ED Other (please specify): _____

(3) For Restricted Rate Programs (check one) -- Are you using a restricted indirect cost rate that:

Is included in your approved Indirect Cost Rate Agreement? or, Complies with 34 CFR 76.564(e)(2)?



U.S. DEPARTMENT OF EDUCATION
BUDGET INFORMATION
NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1890-0004

Expiration Date: 06/30/2005

Name of Institution/Organization:
 Arkansas Department of Education

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

SECTION B - BUDGET SUMMARY
NON-FEDERAL FUNDS

Budget Categories	Project Year 1(a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	\$ (b)(4)					
2. Fringe Benefits	\$					
3. Travel	\$					
4. Equipment	\$					
5. Supplies	\$					
6. Contractual	\$					
7. Construction	\$					
8. Other	\$					
9. Total Direct Costs (lines 1-8)	\$					
10. Indirect Costs	\$					
11. Training Stipends	\$					
12. Total Costs (lines 9-11)	\$					

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> <p>James Boardman</p>	<p>* TITLE</p> <p>Assistant Commissioner</p>
<p>* APPLICANT ORGANIZATION</p> <p>Arkansas Department of Education</p>	<p>* DATE SUBMITTED</p> <p>09/22/2008</p>

Standard Form 424B (Rev. 7-97) Back

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* APPLICANT'S ORGANIZATION	
Arkansas Department of Education	
* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Prefix: <input style="width: 100px;" type="text" value="Mr."/>	* First Name: <input style="width: 200px;" type="text" value="James"/> Middle Name: <input style="width: 150px;" type="text"/>
* Last Name: <input style="width: 300px;" type="text" value="Boardman"/>	Suffix: <input style="width: 80px;" type="text"/>
* Title: <input style="width: 250px;" type="text" value="Assistant Commissioner"/>	
* SIGNATURE: <input style="width: 300px;" type="text" value="James Boardman"/>	* DATE: <input style="width: 150px;" type="text" value="09/22/2008"/>

Close Form

SUPPLEMENTAL INFORMATION
REQUIRED FOR
DEPARTMENT OF EDUCATION GRANTS

1. Project Director:

Prefix:	* First Name:	Middle Name:	* Last Name:	Suffix:
Mr.	James		Boardman	

Address:

* Street1:	8221 Ranch Boulevard
Street2:	ADE Technology Center
* City:	Little Rock
County:	
* State:	AR: Arkansas
* Zip Code:	72223
* Country:	USA: UNITED STATES

* Phone Number (give area code) Fax Number (give area code)

(501) 371-5005	(501) 371-501
----------------	---------------

Email Address:

Jim.Boardman@arkansas.gov

2. Applicant Experience:

Novice Applicant Yes No Not applicable to this program

3. Human Subjects Research

Are any research activities involving human subjects planned at any time during the proposed project Period?

Yes No

Are ALL the research activities proposed designated to be exempt from the regulations?

Yes Provide Exemption(s) #:

No Provide Assurance #, if available:

Please attach an explanation Narrative:

	Add Attachment	Delete Attachment	View Attachment
--	----------------	-------------------	-----------------

Project Narrative

Abstract Narrative

Attachment 1:

Title: Pages: Uploaded File: **1234-ADE.Abstract.FINAL.91908.pdf**

Project Abstract

Arkansas Department of Education's Statewide Longitudinal Data System Enhancement Project

Since 2005, Arkansas has successfully implemented a robust Statewide Longitudinal Data System (SLDS), established an effective governance and support environment, and extended the initiative beyond what was originally envisioned. Today, Arkansas is among four states whose SLDS addresses all 10 SLDS elements as defined by the Data Quality Campaign, and there is evidence that Arkansas' SLDS is beginning to have significant impact on data use by educators in the state, which in turn is leading to increased student performance. Today, Arkansas is committed more than ever to the concept of using data to improve student outcomes, close achievement gaps, and address a wide range of policy issues at every level of the educational establishment. However, Arkansas recognizes that it has much more to do to truly fulfill this commitment. With the help of additional IES funding, it is the intent of Arkansas to implement a comprehensive, three-year project agenda that addresses a broad range of SLDS expansion and improvement initiatives. These will focus on deploying improved, more visually oriented and easy to use tools to end users; augmenting SLDS data sources; and building the institutional support needed to place DDDM at the forefront of front-line instructional delivery, as well as policy and administrative decision making at every level in the state. In the course of the next three years Arkansas will:

- Implement a modern visualization interface to the Cognos data warehouse using dashboards, visual analysis, and scorecard techniques supplemented by open source initiatives;
- Augment/expand Triand application components that are currently implemented, and extend Target Testing and Curriculum Development features statewide;
- Integrate key data collections related to higher education, teacher licensure, teacher professional development, special education and child nutrition into the SLDS, and integrate locally collected assessment data;
- Build a culture of DDDM by engaging Arkansas professional development institutions and others to adopt a DDDM focus to advance best practices;
- Engage the research community to undertake targeted research on issues of critical concern to state educators, using SLDS data, including results from cross-agency data matches;
- Complete the population of and enhance its web-based data dictionary
- Formalize the program of data quality measurements and conduct data quality audits;
- Establish an expanded body of documentation, standards, policies, and procedures;
- Complete automation of EDfacts and re-implement Arkansas' public "AS-IS" website;
- Build an online district data certification and reporting process;
- Develop a web-based collaboration portal for ADE data stewards and district staff; and
- Conduct annual evaluations of progress in achieving project goals and objectives

The project will be guided by the Arkansas Department of Education (ADE) Office of Data Quality and ADE's cross-organizational Data Warehouse Steering Committee, as well as a broader stakeholder steering group that is periodically called into session. The project remains deeply embedded in the ongoing activities of ADE and the Department of Information Services, which will ensure its sustainability following the federal funding period.

Project Narrative

Project Narrative

Attachment 1:

Title: Pages: Uploaded File: **1238-ADE.ProjectNarr.FINAL.91908.pdf**

Project Narrative

(a) Need for the Project

Introduction

The state of Arkansas, with significant help from funding made available as a result of its 2005 Institute of Education Sciences (IES) Statewide Longitudinal Data Systems (SLDS) grant, has successfully implemented a robust SLDS, established an effective governance and support environment, and extended the initiative beyond what was originally envisioned in 2005. The Arkansas Department of Education (ADE) is also among four states whose SLDS environments address all 10 elements of a SLDS as defined by the Data Quality Campaign. Although Arkansas' formal evaluation of its SLDS is still underway, there is initial evidence that the SLDS is beginning to impact the use of data by educators and the ways in which data are being used in making decisions both at the SEA and in local educational jurisdictions. There is also strong anecdotal evidence that the state's SLDS-supported Target Testing initiative, when combined with strong school leadership and with teachers meeting regularly to discuss the meaning of the data they have seen, has resulted in increased student performance. More than half of the educators in the state are now using the SLDS, and ADE constantly receives requests to add data elements. The number of requests for data from researchers has also dramatically increased.

Today, the Arkansas community of policymakers, educators, parents and other stakeholders are committed more than ever to the concept of using data to improve student outcomes, close achievement gaps, and address a wide range of policy issues at every level of the educational establishment. However, Arkansas recognizes that it has much more to do truly fulfill this commitment, establish a real culture of data-driven decision making (DDDM), and to stay in the forefront of states seeking to provide models of best practices in the implementation of SLDS. With the help of additional IES funding, it is Arkansas' intent to implement a comprehensive, three-year project effort that incorporates a broad range of SLDS expansion and improvement initiatives. These will focus on deploying improved, and more visually oriented and easy to use tools to end users, augmenting SLDS data sources, and the building of the institutional support needed to place DDDM at the forefront of front-line instructional delivery as well as policy and administrative decision making at every level in the state. Additional initiatives will be undertaken to further improve data quality, more deeply engage researchers, strengthen data sharing initiatives and bring about efficiencies and other improvements in the state's information architecture. As in the past, ADE is committed to sharing lessons learned through participation at the IES, Data Quality Campaign, and other conferences and forums in the coming years.

Status of Current SLDS

Since 2005, ADE has deployed two complementary, but nevertheless, synchronized educational data repositories that form the foundation of the Arkansas SLDS: a Cognos data warehouse and a Triand warehouse accessible through Triand's web-based interface. These environments, which provide multi-year longitudinal views of Arkansas student, administrative, and financial data, are in wide use and meet a variety of decision support and information needs.

Cognos Data Warehouse. The Cognos data warehouse, the central component of the ADE SLDS, has been implemented as envisioned in the 2005 IES SLDS grant application. It consists of a set of extract, transform, and load (ETL) processes used to extract data from ADE's district- and state-level collection and reporting systems and present the data via a Cognos business intelligence (BI) tools suite. The warehouse is constructed using the Cognos Education Performance Management Solution, which provides a framework for K-12 integrated warehouse architecture and services delivered through Cognos products. The Cognos warehouse contains ADE's Student Information System (SIS) data—certified submissions that are used for ADE's ED Facts reporting—that are loaded as each reporting cycle occurs, as well as Student Management System (SMS) and Financial Management System (FMS) data that are loaded monthly. The accuracy of the loaded data is confirmed by running validation reports at the conclusion of each reporting cycle, and the data are regularly checked for errors. The responsibility for the Cognos product suite lies with ADE technical staff currently supported by a Cognos consulting team, while the underlying platform layers on which Cognos is implemented (IBM server and Informix DBMS) are supported by the Arkansas Department of Information Systems (DIS).

Cognos BI tools have been deployed to all districts. In accordance with the model established at the beginning of the Cognos data warehouse effort, distribution of data from the Cognos data warehouse to consumers of these data is achieved by distributing reports created by licensed users in the districts via e-mail and local websites. Until recently, districts have used Cognos data resources with an emphasis on financial reporting, but now there is an increased emphasis on student information. At the ADE level, Cognos BI tools are deployed for users in the Divisions of Technology and Research, Finance and Administration, and Legislative Research, and other user groups are continuously being brought online. These users conduct a wide spectrum of analyses and create reports, including some ED Facts reports and mandated state reports, using the Cognos report writing, reporting, and querying tools. APSCN (the unit in ADE responsible for managing its core operational information systems) has trained district personnel and acquired Cognos computer-based training modules that are deployed via the APSCN website.

Triand. Triand's electronic transcript services have also been implemented as envisioned in 2005, albeit with significant subsequent expansion in the role of the Triand platform in the SLDS. Triand services are externally provided over the Internet on software as a service (SaaS) subscription model using software running on open source software platforms and in a secure hosting facility. Triand provides a supplementary data warehouse in its own right by extracting transcript related and other subsets of student performance data twice weekly from the SMS/Pentamation operational system (and in a very small number of districts from non-Pentamation operational systems) and performing scheduled loads of standardized assessment data for use in transferring transcripts among districts and more general viewing by district staff. Each district's data are accessible via Triand's web-based interface by principals, teachers, and other individuals for whom the district sets permissions. Triand is SIF (School Interoperability Framework) certified and interoperates with ADE's Pentamation and other systems via secure data linkages.

While Cognos serves as the main interface for analytic and other power users at the district and SEA level who need full access to the comprehensive data resources of the Cognos data warehouse (especially where there is need for linking of student and financial data), ADE uses transcript data that Triand makes available to district users and additional features offered in the Triand product suite to address critical data delivery needs that are not otherwise provided through the Cognos environment. Triand serves as the primary interface for teachers and other locally-based educators who are most directly involved in day-to-day instructional activity, giving all such educators web access to near real time (in comparison to the less frequent Cognos data warehouse load cycle) access to a critical subset of student demographic and performance data, unconstrained by licensing restrictions on the number of users with access privileges. At the beginning of a term, teachers, using Triand, can see the detailed multi-year longitudinal performance data for their students and have real-time, ongoing access to a wealth of other demographic and performance data throughout the school year. All data are available for aggregation at multiple levels, including at the teacher, school, LEA, region, and SEA level. Statewide assessment data—including end-of-year assessments, ACT, and limited English proficiency exams—are provided to Triand by the test suppliers, and the Triand interface is now used to supply quick access to end of year and end of course assessment data. Triand and ADE's Office of Research and Technology have conducted training throughout the state that covers the mechanics of the interface and how to view and use the data. Online video training, as well as training materials available in Adobe format, are available on the ADE and Triand websites.

The most public adoption of the Triand solution has occurred with the Arkansas Target Testing (benchmark testing) Initiative, a formative assessment initiative in which Triand is used to deliver interim tests through the Arkansas Regional Cooperatives, allowing teachers to track target testing performance to exact test questions. Approximately 15 cooperatives—involving more than 160 schools and approximately 200,000 students—were involved in the initiative in 2007–08. In addition, the regional cooperatives have begun using Triand's curriculum planning modules, in which teachers and others can collaborate electronically on a common curriculum map, develop electronic lesson plans and related resources, and share these with all teachers across the state. This activity is “user driven”—ADE provides the platform, but the user community shapes the tool to its needs. Teacher licensure data have also been incorporated into the Triand interface, via links to the state teacher licensure system (ATPS), although they are not yet fully integrated with Triand student data.

Needs and Uses - Need to Improve and Expand the Current SLDS Environment

Enhance SLDS User Interface: Visual Analytics, Data Dashboards and Scorecards. The current Cognos and Triand SLDS user interface tools are adequate, and even excellent, for many uses and for many end users, and they play an essential role. However, based on observations and discussions with hundreds of potential and actual end users throughout the state, it is clear that achieving truly productive, widespread use of longitudinal data will require an enhanced, visual, and more intuitive SLDS user interface that complements what is already in place. Chief among the needs that ADE wishes to address over the next three years is to improve the capacity of users to derive actionable information from the raw data stored in these repositories, and to get users accustomed to looking at data in a more timely fashion as part of an emerging culture of DDDM. ADE wants an educator to be able to quickly and intuitively see not only where a

student has been, but, by means of predictive analytics, where the student is going. This would allow the educator, for example, to identify students who are at risk for dropping out based on indicators such as discipline referrals, attendance, grades, and test scores. To accomplish this, ADE needs to provide a new visual interface that accommodates not only technically sophisticated end users but also the needs of a much wider population of educators who will use the SLDS in this way only when provided with an interface that is highly intuitive.

Visually-enabled analytic tools, in which users “pull” information from the SLDS, are needed to enable users to conduct inquiries and explore longitudinal data to discover the relationships and connections in these data. However, Arkansas also needs more active information delivery approaches that are based on the use of dashboards and scorecards, in which performance metrics and actionable alerts are “pushed” to educators’ desktops. Arkansas recognizes that such an initiative implies the need for the state to define and commit to implementing a comprehensive performance management environment that goes beyond AYP measures and other performance metrics now in use, in which objectives are defined, committed to by the educational enterprise, monitored, and reported. Examples of performance areas to be measured might include district financial security, number of potential dropouts (identifying these in time for intervention), and progress in addressing achievement gaps between subpopulations, among many others.

Expand Triand Warehouse Applications. The Triand Target Testing and Curriculum Development features have been successfully implemented for nearly half of the students in the state, but resource constraints have limited the ability to advance formal statewide implementation. ADE is concerned with maintaining a uniform SLDS environment across the state and needs to expand these initiatives to all schools and districts over the next three years. In the coming years, ADE also needs to implement other capabilities in the Triand application suite, including the Parent Portal and the expansion of the Triand ID generation system used by all educational employees, as well as other features discussed under the topics introduced below.

Integrate Additional Data Collections. Although preliminary planning has occurred and discussions with relevant ADE units is ongoing, the SLDS does not yet include or does not appropriately include ADE transactions associated with staff professional development, child nutrition, and special education. Special education data need to be reconciled with respect to fixing a single authoritative source for populating the data warehouse, and child nutrition data need to be reconciled with respect to level of granularity; resulting adjustments to how these data collections are handled in the Cognos data warehouse need to be addressed. Likewise, professional development data are now collected in three distinct stand-alone environments, two used by Regional Cooperatives and a third by educators who register on the state’s online professional development site. Integration of professional development data from these sources into the Triand environment is a significant new initiative that will allow the state to better understand the effectiveness of the huge expenditures in this area and to leverage these data for other analytic purposes – also giving a lead to other states across the country who need to step up to tracking professional development. As professional development data are included in the Triand environment, they will need to be integrated with the teacher licensure data already present to create a comprehensive system through which teacher credentials and professional development can be more readily analyzed in the context of student performance and other

student data available in the Triand environment. Absence of these data within the SLDS fragments the way critical subsets of educational data are handled. Teacher licensure and professional development data also need to be included in the Cognos data warehouse.

Schools and districts use a large number of locally collected, assessment-related data sets from popular computer-based educational assessment vendors to measure the ongoing academic progress of Arkansas students. These data provide the basis of many critically important and timely insights into the academic progress of Arkansas students throughout the school year. But the value of these data is diminished because they are not integrated into the SLDS and, therefore, are not part of the whole picture of a student's performance as seen by the educator. School and district personnel would like ADE to integrate the data from these programs into the SLDS. What is needed is a "one-stop shopping" approach that links many more types of instructional data, and at more frequent intervals, in a single environment that is actionable and in near real time. This represents a significant challenge and one hardly begun to be addressed in any state.

Provide Professional Development with Focus on DDDM. Closing the gap between the longitudinal data now available and the capacity of educators to actually use these resources requires attention to building capacity and a culture that is dedicated to the habitual use of these resources for DDDM. Arkansas has done a great deal, within the limits of available resources, to promote the use of the SLDS and to train users on the mechanics of how to use the tools and how to make effective use of the data in a number of decision-making settings. However, as Arkansas deploys its SLDS, it is apparent that the state has still to build the kind of robust institution framework that makes DDDM, using the SLDS, a true imperative for every educator in the state. There are still many educators who do not understand the mechanics of how to use the tools, lack understanding of what the SLDS contains and what its limits are, or, as is increasingly recognized as a problem to be addressed in all the states implementing SLDS, do not know how to make effective use of the data in making educational decisions.

In the last year, ADE took an important step forward in this direction by entering into a collaboration with the University of California at Los Angeles-based National Center for Research on Evaluation, Standards, and Student Testing (CRESST) and MC3, one of 21 regional comprehensive centers funded by the U.S. Department of Education to help states implement the No Child Left Behind Act (NCLB). CRESST has been at the forefront of efforts to improve the quality of education and learning in America by developing scientifically-based evaluation and testing techniques and encouraging the development, validation, and use of sound data for improved accountability and decision making. MC3's primary mission is to help state education agencies in Arkansas, Kansas, Missouri, and Oklahoma increase their capacity to provide sustained support to their districts and schools as they implement NCLB. MC3 also provides technical assistance throughout its region. These organizations are now working with ADE to define best practices in DDDM and are planning an initial pilot to work with two regional cooperatives to further define a body of best practices by mentoring and supporting these cooperatives in introducing DDDM in the schools selected for this pilot. The expectation is that the pilot will deepen the understanding and enrich the practices in the targeted pilot schools, resulting in the definition of a more formal set of best practices, and that this will provide the basis for a wider initiative in the state. However, ADE will need to develop a major

complementary initiative to engage institutional partners in the state to help ADE promulgate and impact statewide practice around what is learned and documented in this pilot. This will need to involve those partners committing to codifying what is learned in the pilot into a formal curricula and delivering DDDM training programs throughout the state.

Develop Standards, Documentation and Policies and Procedures. Although the financial sustainability of the SLDS is assured, there is a need to consolidate and strengthen the SLDS environments by launching an aggressive new phase of documentation and development of standard definitions and formal procedures and policies. This is needed to ensure that the SLDS is more sustainable for the long term from a technical and operational standpoint and to ensure that it becomes fully institutionalized. Although work in these areas has progressed, much more is required to fully integrate the SLDS into the fabric of daily operations and workflow in the SEA and LEAs to address the needs of both educators and technical support staff. As the SLDS has been deployed, documentation and development of policies and procedures needed to regulate its use has tended to be subordinated to the need to get the system resources into the hands of users as quickly as possible. ADE, in collaboration with Triand and Decision Ed, has delivered many instructor-led training sessions and developed videotaped CBT modules. However, these modules could be greatly improved if they were used more specifically in a DDDM-oriented context and augmented with more widely available instructor-led training and live support.

K-20, Workforce, and Human Services Data Matching

Recognizing the need to gain insight into the longer-term outcomes of policies and programs in its K-12 environment, ADE has established a policy framework for extending the state's longitudinal view of its students to K-20 and the workforce. ADE has already executed a K-12 higher education match for students entering all institutions of higher learning in the state, including private colleges as freshmen in 2007, and it will now proceed to do annual matches as successive groups of high school graduates enter college in the fall of 2008 and thereafter. Currently, agreements with the state's higher education institutions permit the match activity but prohibit introduction of the resulting match data directly into the SLDS. ADE has, therefore, collaborated with ACT, the University of Central Arkansas, researchers, and policy makers who are performing analysis of match results. ADE is actively engaged in two different research projects that include high school grades, ACT scores, advanced placement exam scores, state end-of-year scores, and freshman and sophomore grades for college students. However, ADE still needs to develop a more comprehensive plan to analyze and disseminate the results from this matching activity to appropriate stakeholders in schools and districts while still working within the agreement framework with institutions of higher education to ensure that appropriate information is derived and directed to those who can take action based on the findings.

ADE has also reached agreements with Arkansas' workforce authorities for similar matching for graduating students entering the workforce. In this case, agreements with the workforce authorities require providing education files to the workforce authority that will conduct the match, although match results will be available for analysis by ADE or its designees. Again, match data will not be imported directly into the SLDS. As is the case with higher education, the newness of the longitudinal data system limits the number of years of longitudinal data available

for students just now entering the workforce. Arkansas plans to undertake an initial annual match in the 2008–09 school year. Here again, there is a need for ADE to initiate discussions with K–12 stakeholders and appropriate partners at the University of Central Arkansas and others with respect to the analysis and dissemination of the information, as well as the ultimate follow through.

ADE has been actively pursuing data sharing with the Arkansas Department of Human Services and has carried out a number of matches in the recent past, including an evaluation of preschool programs in Arkansas conducted by Rutgers and an initiative related to an Arkansas child health initiative. ADE has also long had in place successful arrangements with the Arkansas Department of Human Services to import information on free and reduced-priced lunches into its educational data systems. In the coming period, ADE would like to more aggressively pursue matching of this kind both in providing educational data to human services agencies, as well as using human services data to better understand the conditions affecting outcomes in K–12. Although the execution of the matches themselves is easily accomplished, usually in the Office of Data Quality (ODQ), promoting, planning, and engaging partners in analyzing and disseminating the results will involve the dedication of significant additional resources within the ODQ.

Researcher Involvement

ADE receives and fulfills regular requests for data from the research community. Since 2005, Arkansas has used its SLDS resources to support many research efforts in addition to the previously described research on the analysis of match data from the higher education match program and with the Department of Human Services. For example, ADE provided SLDS data for evaluations of Arkansas charter schools conducted by Metis Associates and the Hoover Institution, and for an independent evaluation of America's Choice in the state. Metis Associates also used the SLDS to complete the evaluation of Arkansas's EAST (Environmental and Spatial Technology) Initiative. ADE provided SLDS data to Just4Kids researchers, to the University of Arkansas for a study of the teacher retirement system, and to the ADE Legislative Research Division and Picus and Associates for a study on AYP after new funding legislation. These research initiatives and others that ADE have supported through the SLDS are important, but Arkansas also recognizes that it needs to engage stakeholders in the educational enterprise and the research community with the objective of driving a body of highly targeted research that addresses the educational community's specific questions.

Federal Reporting

Data needed to support EDFacts reporting are mostly present in the Cognos data warehouse, but ADE has only recently made a substantial effort to transfer knowledge from the Cognos Decision Ed consulting team to ADE staff to develop the EDFacts report suite. The state currently expects that this work will be completed in 2009, thus allowing ADE to begin fully automated generation of EDFacts reports. This work has included creating a new presentation layer of data specific to supporting EDFacts submissions. It also involves significant complexity in calculating, augmenting (in some cases), and mapping data from the Cognos environment to EDFacts data

structures. However, absence of this item remains a significant drawback in the capacity of the SLDS to provide an important operational efficiency.

Privacy Protection

ADE offices responsible for each of Arkansas' operational and transaction systems have established procedures for protecting the security, confidentiality, and integrity of data. The Cognos and Triand environments built into their software architecture strong security features to implement the provisions of FERPA and specific security policies and processes through which ADE establishes access and control of these environments.

Data Quality

Since 2005, significant effort has been devoted to creating an organizational structure and plan to ensure data quality. An Office of Data Quality (ODQ) was established within the ADE Division of Research and Technology, and a formal program of data stewardship was established. The ODQ, in consultation with other ADE offices, developed a formal data quality campaign intended to rationalize and pull together the longstanding and ongoing data-related activities and initiatives of ADE offices charged with stewardship. A *2006–2008 Data Quality Campaign Plan* was developed and presented to a high level SLDS Steering Committee (discussed further in the Section (e) Project Management Plan) in September 2006. This plan reflected guidelines issued by the U.S. Office of Management and Budget and the information quality goals of the U.S. Department of Education that emphasize coordination and logical integration of all data-related activities with a special focus on data stewardship, data-quality measurement, and continuous improvement efforts. In October 2007, ADE strengthened the institutional focus on data quality by promulgating formal rules concerning data quality that apply to all school districts. These rules, which implement 2007 legislation passed by the Arkansas General Assembly, speak to Arkansas' strong commitment to assuring the quality of educational data.

Since 2006, a cross-organization Data Warehouse Steering Committee, also established by ADE to help guide SLDS work, has gradually implemented elements of the ADE data quality campaign plan with good results. Managers, subject experts, and technical staff from multiple ADE offices work together through the Steering Committee to ensure the quality of the data loaded to the warehouse and the accuracy of the information that is reported. An estimated annual savings of \$2 million has already been realized from implementing this program due to timely detection and correction of anomalies and/or erroneous reporting of data that might otherwise have gone unnoticed. To help schools and districts produce high-quality data, ADE's APSCN provides administrative computing services to support schools, district offices, and educational cooperatives to process their daily financial and student management records; assists districts in reporting to ADE; publishes systems-related manuals and guides; provides "help desk" services to users; and trains users through on-site and statewide distance-learning sessions. A parallel help desk and support infrastructure is in place for the Triand environment. A web-based, unified cross-application data dictionary system, which uses an innovative web 2.0 approach to engage stewards and general users in dictionary population and validation, and contains statewide standard definitions and other metadata, is currently being implemented.

Nevertheless, significant efforts are still needed over the next three years to fully populate, extend, expand, and promote the state data dictionary facility. An effort also needs to be made to integrate metadata stored in the data dictionary into operational systems to make using the metadata an integral part of the way all users work with data. Arkansas must also do more with respect to data quality measurement and moving forward with data audits.

Interoperability

Before 2005, Arkansas had already achieved vertical integration of local and state data collections and had full local participation in the statewide data system. All but two school districts use the standard SunGard Pentamation FMS and SMS software modules provided by ADE for local data collection and to export data to Arkansas' Statewide Information System (SIS). Appropriate provision is made for collecting and reporting data from non-Pentamation or other non-conforming locations. These source systems have been further unified within the context of the Cognos warehouse and Triand environments and within a system structure that allows efficient data maintenance and retrieval and accommodates longitudinal analyses of student academic growth and the factors affecting it. The capacity now exists, subject to policy restrictions for sharing information across LEAs, for sharing not only student transcripts across LEAs but also sharing of such artifacts as lesson plans, assessments, etc., via the Triand interface. The Triand transcript transfer facility has also been successfully used to send student transcripts to institutions of higher education.

On the other hand, this environment has limitations, and re-architecting is needed to fully capture the benefits in efficiency that the new SIDS environment makes possible. A significant area of inefficiency lies in the need to continue to operate the state's SIS, which pulls data from the state's Pentamation operational systems according to calendar-specific reporting cycles and augments this with manually entered district data for use in federal and other reporting submissions. Collection of these data requires a formal and labor intensive review, feedback, and data correction loop between ADE and district staff before formal certification and submission of cycle reports to the state. The state could achieve greater efficiencies using the Cognos data warehouse if the data could be certified within the data warehouse itself without the need for a separate SIS reporting system.

Enterprise-Wide Data Architecture

Since 2005, ADE has substantially met IES requirements and the state's commitments to the IES with respect to defining and deploying K-12 data architecture. Definition of the data architecture began well before 2005, and over the last several years it has been continuously informed by analysis of the current data systems and plans for future enhancements, as well as the information needs of the SEA, districts, program offices, schools, classrooms, and federal reporting requirements. Today, Arkansas has a well-defined, statewide K-12 data architecture that includes a data model, data dictionary, business rules, and quality assurance procedures. A logical statewide data model encompasses all data types and items within the K-12 architecture, and much of the logical model has been incorporated into the architecture of a data warehouse constructed around the Cognos 8 BI suite. Although some planned components of the

warehouse data architecture are not yet in place, there is general agreement on how the data architecture will be expanded to include the major missing data groups.

Early on, ADE adopted and implemented Triand's probabilistic matching based system for generating unique student and teacher IDs; this solution provided a superior approach and achieved a match rate in excess of 99%. Student and teacher IDs are now generated for all students and teachers by Triand and Student IDs (with Teacher ID's to follow) returned to transaction systems from which they are moved into the Cognos warehouse. ADE is also attaching the unique ID to match files provided by external organizations to allow movement away from the need for social security numbers. ADE would also benefit from having unique IDs generated for all educational staff, and not just teachers. Classified staff, for example, have their own professional development requirements that will also need to be captured and analyzed.

Outstanding progress has been made in architecting the unit record-oriented SLDS environment, but Arkansas still maintains a legacy environment and a set of outmoded and less than fully effective processes for collecting data from its operational systems and organizing this for aggregate oriented display on its public website, "AS-IS". ADE has only recently begun to plan for the conversion of its public website so that aggregated information displayed there is sourced directly from its Cognos data warehouse. Conversion of the public website will involve a significant effort to research documentary records and/or reverse engineer old code to capture business logic needed to transform data in the data warehouse into the set of aggregate tables that are needed. This work must be addressed, however, if ADE is to present a consistent view of educational data across its public and private environments.

(b) Objectives for Proposed System

Arkansas' objectives for next three years are described below in terms of the outcomes achieved and/or products to be produced by the end of the grant.

Enhance SLDS Tools Set

- Implement a comprehensive visually oriented performance management environment using dashboards, visual analytics, and scorecard techniques, using Cognos 8 visualization tools, supplemented by a targeted ADE open source initiative for visual analytics for student performance data.
- Expand currently implemented Triand application components to extend target testing and curriculum development features statewide, implement the Triand Parent Portal, and expand the Triand ID generation system to all educational staff.

Augment SLDS Data Resources

- Integrate key data collection related to higher education, teacher licensure, teacher professional development, special education, and child nutrition into the SLDS; and
- Integrate locally-collected assessment data sets into the SLDS.

Build a Culture of DDDM

- Extend the current CRESST and MC3 pilot effort by engaging the Arkansas Leadership Institute, Arkansas Regional Cooperatives, the University of Central Arkansas, and others to adopt a DDDM focus and align their professional development programs and curriculum to advance best practices in the use of longitudinal data for DDDM throughout the state.
- Develop and deliver augmented and improved instructor-led and computer-based training programs and modules to better facilitate the use of existing Triand and Cognos BI toolsets.
- Formalize specific agreements with the research community to undertake targeted research using the SLDS on issues of critical concern to state educators.

Share Data across Agencies and use Results to Support DDDM

- Negotiate and coordinate agreements with appropriate research entities and educational authorities to ensure appropriate research and dissemination of results from data matches with higher education institutions, workforce, and human services – and their use in support of DDDM.

Ensure Quality of Data

- Complete the population of the web-based data dictionary and extend and enhance this environment.
- Formalize and implement the state's program of data quality measurements and commission data quality audits.
- Use visual dashboards to drive data quality issues and error conditions to their source for continuous versus periodic review and correction.

Strengthen, Complete, or Extend Other Components of the SLDS Environment

- Establish an expanded and comprehensive body of documentation, standards, policies, and procedures that document and/or regulate significant aspects of the SLDS environment that are appropriate to both end users and technical support staff.
- Complete the full automation of ED Facts reporting.
- Re-implement Arkansas' public "AS-IS" website and link it to the Cognos data warehouse.
- Modify the Cognos data warehouse to allow for online district certification, thereby eliminating the current SIS environment.
- Develop a web-based portal for collaboration between ADE data stewards and data administrative staff in the schools and districts.

(c) Project Design

The work that Arkansas proposes to conduct over the next three years and the activities it will pursue to accomplish its objectives are described below.

Enhance SLDS Tools

Implement a Data Visualization Environment: Visual Analytics, Dashboards, and Scorecards.

Arkansas will undertake an ambitious program to deliver visually-oriented products at the operational, tactical, and strategic level across the educational establishment by using dashboards, visual analytics, and scorecard techniques. Tools will focus on providing greater capacity for analytic exploration, and role-based information dashboards and scorecards will provide educators with visibility to perform against a set of key metrics at each level.

At the operational level, role-specific and personally configured dashboards will use gauges, dials, maps, charts, and other graphic elements to show multiple types of information aggregated from disparate domains in an integrated view that monitors core operational processes, conditions, and events (e.g., attendance, disciplinary actions, homework assignments, formative assessments) at the classroom, school, district, or SEA level. This will provide immediate visibility and help stimulate timely corrective action, also supporting the definition of exception conditions that would automatically trigger desktop (or supported mobile device) alerts.

At the tactical level, dashboards will provide analytic capabilities that allow monitoring of performance against preset targets at varying frequencies. They will also allow users working with visual representations of underlying data the flexibility to explore and understand trends and issues affecting performance using a variety of dynamic visual analysis tools, predictive statistics, forecasting, and modeling features. Users will be able to manipulate underlying multidimensional variables in a visual presentation format that is easy to use and understand. These dashboards will also allow drill down and drill through to underlying reports and interactive charts and tables. ADE will implement these tools in a virtual, team-oriented Web 2.0 modality that stimulates and enriches the analysis and discovery of data by geographically dispersed individuals.

At the strategic level, Arkansas will deploy a set of scorecards to monitor the state's strategic objectives at each level of the educational enterprise. Scorecards delivered at the school, district, or SEA level will not only report performance against strategic objectives, but will also map key connections between objectives and show the connections between performance in areas such as student performance, attendance, discipline, school finance, and other dimensions using a balanced scorecard oriented approach.

Arkansas will use the features already available in the Cognos 8 BI tools product suite it currently licenses to deploy the operational dashboard, strategic scorecard, and some of tactical analytic components of its visualization solution, thereby complementing the Cognos BI tools interfaces already in place via existing query and reporting facilities. In the last two years, IBM/Cognos has greatly enhanced its suite of business intelligence tools, including an improved

emphasis on data visualization. Through its current Cognos license, ADE has access to most of the software product set needed to develop the new set of visually oriented products. Arkansas is already planning to implement this strategy on a pilot basis using the tools at hand, and augmenting these by the acquisition of the Cognos Scorecard authoring tool. Based on, and in conjunction with, this initial pilot effort, Arkansas will define a broad, participatory process informed by best practices in education and other domains in this field (e.g., the metrics devised in conjunction with the Council of Great City Schools) through which it will engage stakeholders in discussions on the adoption of a performance management framework to reach agreement on measures and metrics to be incorporated into the dashboard and scorecards. This will be followed by the gradual rollout of new components of this environment over the next three years.

To extend this implementation to a much wider population of end-users than allowed by current restrictions in Arkansas' current Cognos 8 license, ADE intends to acquire, with help from the IES grant requested in this application, an ADE site license that will allow an unlimited number of Arkansas educators to access the Cognos environment to view and interact with these new visual tools.

Based on an assessment of current needs with respect to visual analytics for student performance data and the interface through which it will engage teachers to become directly involved in DDDM, ADE believes it is best served by initiating a complementary process through which this particular visualization environment will be built using internal resources in ADE (with support from the University of Arkansas) and open source tools. Although this may ultimately become a transition step that ADE will migrate to Cognos and Triand, neither platform presents a complete vehicle for the rapid deployment of the solutions envisioned by ADE. ADE has already prototyped elements of the solution set envisioned for the teacher DDDM analysts, and plans to advance its vision further through an agile, iterative, and highly interactive planning and development process embedded in its broader initiative around DDDM professional development.

Expand Triand Target Testing and Curriculum Development Application Components. Arkansas will upgrade its current Triand subscription to extend statewide the target testing and curriculum development features already successfully implemented in many regional cooperatives and districts. Also included in the upgraded subscription will be the Triand Parent Portal, which will give parents access to important information pertaining to their students' performance, course offerings, homework assignments, etc. Arkansas will use the Triand ID generation system to generate unique IDs for all educational staff, not just teachers. Other items that will be included under the upgraded Triand subscription are discussed further below.

To further support the goal to align the curriculum and share electronic lesson resources across the state, ADE will become a more active partner in the CCSSO Surveys of Enacted Curriculum (SEC) and will make SEC resources available for schools as part of their school improvement programs. The participation of Arkansas schools in the SEC will be a strong complement to the data initiatives. A comprehensive, objective analysis of state standards, current instruction, and assessment will enable schools to identify weaknesses and will be an invaluable tool in the effort to address achievement gaps.

Augment SLDS Data Resources

Include Additional Teacher Licensure, Teacher Professional Development, Special Education, and Child Nutrition Data Collections. Arkansas will expand the data resources within its SLDS repositories to address planned but not yet addressed elements of its current data architecture. This will include pursuing work to plan and implement or complete the integration of teacher licensure, professional development, special education, and child nutrition data into its SLDS environment. ADE will accomplish this using ADE technical staff and resources from Decision Ed and Triand to the extent required. New ETL routines will be developed to extract special education and child nutrition data from operational environments and load them to the Cognos data warehouse where these data will become accessible to users via the Cognos BI tools interface. In 2008, Triand will complete work on the re-implementation of Arkansas' legacy teacher licensure system (ALPS), and in 2009 will begin extracting data from the new licensure environment to the Triand interface, thereby replacing the current legacy to Triand link. As part of the new upgraded Triand subscription, Triand will implement automated links to Arkansas' three professional development repositories and unify this information within the context of the Triand interface so that it is tightly linked to the teacher licensure data components that are already present. An export feature in Triand will provide regular updates to the Cognos data warehouse of all data collected in the Triand repository that are not loaded to the Cognos data warehouse via Cognos ETL routines.

Integrate Local Data Systems. ADE will extend the current SLDS architecture to support the horizontal and vertical integration of data from NWEA (Northwest Evaluation Association), Arkansas Learning Institute, Star Math, Star Reading, DIBELS, Accelerated Reader, Accelerated Math, Plato, Compass Learning, and other similar programs that are widely used in Arkansas. As part of the upgraded subscription, Triand will use features already present in its product suite and new functionality that will be developed as required to integrate these resources. Triand has already implemented adapters and/or intelligent district upload interfaces for one or more of the targeted local systems in question and it is well positioned to accomplish this work within the context of the Triand environment that ADE has already standardized upon for web-enabled data collection from districts to the SEA.

Build a Culture of Data-Driven Decision Making

Develop DDDM Professional Development Programs and Augment Tools Training. To more effectively close the gap between the availability of longitudinal data and their actual use, Arkansas will work with its institutional partners and others to plan and facilitate a new set of professional development programs that focus on how to use longitudinal data in DDDM as well as the mechanics of how to use the tools provided in the SLDS user interface. ADE will follow through over the next year in its collaboration with CRESST and MC3 and two Regional Cooperative pilot sites to define a framework for advancing the practice of DDDM in the state. To take this work to scale, ADE will engage several institutional partners, including the Arkansas Leadership Institute, University of Central Arkansas, and Arkansas Regional Cooperatives, to adopt a DDDM focus and integrate this into their respective professional development, training, and curriculum development and delivery programs. As a result, teachers, school administrators, and policymakers will learn how to use SLDS resources to

evaluate educational programs and policies and how to design and implement appropriate responses based on conclusions from the analysis of longitudinal data.

Implementation of this initiative will begin with the convening of a series of planning sessions, initiated by ADE and involving CRESST and MC3, to reach agreement on the nature of these programs and the roles of the major participant organizations. Joint task forces will be assigned to develop detailed plans for this activity. Building this capacity is critical to the fundamental objectives of the SLDS program, so one or more initiatives will be accelerated in the interest of achieving several "quick wins." To supplement this effort, ADE will use its website and other delivery channels to directly offer Triand and Cognos users access to white papers, best practices, and other materials relevant to the use of data to improve teaching and student learning.

To optimize the use of SLDS tools already deployed and new tools to be implemented, ADE will strengthen the computer-based training facilities and augment these with a more robust instructor-led training program. ADE will also establish a system of competency teams comprising volunteers in schools and districts who will act as "go-to" persons in particular venues, and will systematically coordinate reinforcement and new employee training over the course of the school year. ADE will improve the quality of existing computer-based training resources by upgrading the mostly generic descriptions of how to use the tool sets with role-based versions that place use of these tools within the context of the actual information inquiries a user of these tools in Arkansas might make. ADE will place its entire training effort in the broader context of training and professional development for DDDM as this is developed. The importance of "just-in-time" training approaches, in which trainees are trained in immediate proximity to putting their training to use before its value is lost, will receive special attention.

Make SLDS Available and Accessible to Researchers. Arkansas will empower all users of the SLDS to become skilled in using data to drive decision making that is appropriate for their roles, skills, and competencies. For more sophisticated research and analysis that require the use of advanced statistical methods that neither SEAs nor LEAs are equipped to address, Arkansas will focus on third-party researcher partnerships. Along these lines, it will pursue major new initiatives to strengthen institutional relationships with third-party researchers to undertake substantive and directed research that can be, and actually is, fed back into the decision making processes within the educational establishment. ADE will hold discussions with the research community and reach agreements that stimulate a new body of research using the SLDS. ADE will also consider a more formal definition of the services that ADE provides to researchers to document and report on the services provided. Implementation of this initiative will follow a pattern of high-level discussion, subordinate staff work, and planned development with an emphasis on early delivery of one or more key research reports. ADE's ODQ will devote considerable effort to engaging the research community and policy makers by traveling to conferences and sponsoring research projects.

Share Data across Agencies and use Results to Support DDDM

Ensure Higher Education, Workforce, and Human Services Data Matching, Sharing and Use of Results. Arkansas has already negotiated agreements with higher education and workforce

authorities in the state regarding governance, privacy, use, and dissemination issues, and in the case of higher education and human services, has already begun cross-agency data matching. This will be followed this school year with an initial ADE workforce data match. Although the framework for and implementation of the match efforts have progressed, a more definitive plan for engaging appropriate institutional partners around use of the match results is needed. The purpose will be to ensure that the results of these efforts are effectively interpreted and used as part of the states' focus on DDDM, to address the appropriate questions about K-12 programs, policies, and performance that the match result data are capable of addressing.

To this end, ADE will begin in-depth discussions with institutional partners already engaged in higher education matching, including ACT, the University of Central Arkansas, and others that may be identified as appropriate in this role. With these partners, ADE will review current strategies and, as necessary, plan and execute more comprehensive analyses based on match data and input from educators in the state. Educators will be specifically asked to define questions for these match exercises to address. This effort will involve selective combining of data sets used to execute the initial match with additional defined subsets of data drawn from the SLDS. The research will be conducted in full compliance with the agreements between ADE and its higher education and workforce partners, including additional agreements that may be necessary to facilitate analysis and dissemination of results to the appropriate parties within the Arkansas educational establishment.

Ensure Quality of Data

Complete Population of and Enhance ADE Unified Data Dictionary. During 2009-11, ADE will continue to add metadata to the ADE Unified Data Dictionary. In addition, ADE will develop and execute a comprehensive project to inventory and analyze the types of metadata present in the ADE information environment (e.g., data element definitions, acceptable values, field usage, database schema, data models, source-to-target maps, ETL rules concerning handling of missing or erroneous data, calculation methods for summarized data, data quality, etc.). From this inventory, ADE will develop and execute a longer term plan for gradually bringing all metadata resources within the bounds of the ADE data dictionary/metadata management environment. ADE will expand and enhance initiatives to further improve its web-based data dictionary by building features into the automated system for user addition of new data collections; adding a metadata dictionary; and integrating resources captured in the data dictionary environment within the application interfaces accessed by users of the SLDS repositories, so as to present metadata in a way that is most useful for the user. This work will take advantage of and contribute to the ongoing efforts of the National Forum on Education Statistics Metadata Task Force. Metis Associates will act in a consulting capacity, as in the past, to help ADE execute portions of the project initiative. Metis, which was contracted to handle the technical implementation and external hosting of the web-based dictionary in 2008, will continue in this role while assisting in the transition to ADE of hosting and technical support for this facility.

Implement Data Quality Measurement and Audit Programs. ADE will develop a detailed metrics and data quality measurement plan that will include the use of data audits and provisions for systematically examining the flow of data through ADE systems. This work will be carried

out by ADE's ODQ with consulting support from Metis Associates. In late 2011, after the plan has been developed and implemented and the appropriate preparatory groundwork has been laid, ADE will engage an independent third-party auditor to conduct an independent quality audit of a defined subset of the ADE SLDS repository data resources deemed most critical from the standpoint of data quality.

Ensure Real-Time Data Quality Reporting. As part of the dashboard implementation envisioned by ADE, dashboards will be used to report on data quality according to the agreed upon set of quality dimensions and measures, so that individuals responsible for data quality at each level of the enterprise—up to and including the ODQ, data stewards, and others at the SEA level—will be able to immediately identify anomalies or other variance conditions that might signal defects in the quality of data being reported. This work will be closely coordinated with the work on Collaboration Portal development described further below.

Strengthen, Complete, or Extend Other Components in the SLDS Environment

Ensure Documentation and Develop Standards, Policies, and Procedures. To strengthen the SLDS, ADE will define a formal set of standards for reports that will address naming conventions, report titles, report layout standards, date stamps, distribution, use of abbreviations and acronyms versus full text entries, page numbering, etc. ADE will also solidify a long-term plan for improving the format and content of the data warehouse's existing end user interface, including the directory structures, according to which end users navigate the warehouse contents in Report Studio and Query Studio. Folders, packages, and other entities that users encounter will be documented in a set of guides and with metadata that explain what is in the data warehouses and the ground rules and limitations that users should observe in creating reports and queries. ADE will also develop integrated, audience-specific procedures for how to get into and use the data, including one or more instructional manuals that integrate generic Cognos instructions for tool use with explicit information about the ADE warehouse, such as file structures, update schedules, naming conventions, report standards, and rules governing data use and distribution. ADE will also collaborate with external partners to develop policies and procedures governing ownership, custodianship, and change management of models and the model-defined packages that serve as the basis for reporting. These will be implemented for easy online web access using the Collaboration Portal (discussed below) and through context-appropriate links from the SLDS resources that end-users may be accessing. Production and delivery of written material will be carried out through a joint effort of ADE staff and its technology and consulting contractors, with Metis Associates assuming responsibility for much of the technical writing.

Complete ED Facts Reporting Automation. This activity, currently underway, will continue to be pursued in 2009 until it is brought to a successful conclusion, allowing ADE to become more agile in responding to ED Facts changes going forward.

Redeploy AS-IS Public Website. Public and ADE program access to non-private data has always been provided through ADE's familiar public interface, "AS-IS". This web environment displays aggregate, non-individually identifiable student information to the public and to program staff. It is also a major source of data used by researchers. ADE wishes to enhance and

reconfigure this environment to link it to the Cognos data warehouse so that data that previously appeared in discrete annual data sets will now be presented longitudinally with the linkage across years. This work will be primarily carried out by ADE technical staff and will involve documenting the business logic needed to generate Cognos aggregate reports that will populate the tables that are publicly accessed on ADE's website.

Replace SIS Cycle Reporting Process. In 2009–11, ADE will develop and execute a plan for moving from the current SIS vertical reporting system to cycle reporting, with a view to simplifying this process through in-place certification of data in the Cognos data warehouse. The focus will be on ensuring continuous error detection and correction as part of the normal operation of the warehouse environment (continuously driving correction of errors back to source operational systems using the Collaboration Portal described below), rather than the current periodic correction of accumulated errors at defined intervals. All members of the ADE Data Warehouse Steering Committee will collaborate to plan this work, and the technical components will be carried out through a collaboration of the Decision Ed and ADE technical staff with support from Metis Associates. Given the complexity and significance of this change, as well as the necessity to make further advances in ADE's work on data quality, planning for this work would likely continue over most of 2009 and 2010, with implementation likely to occur in 2011.

Establish a Collaboration Portal. In the interest of improving efficiency of district and SEA staff in addressing state and federal reporting requirements and improving data quality, ADE will establish a bulletin board style portal to support district-to-ADE and district-to-district communication related to student and financial data and systems. Role-specific dashboards will be developed to present cycle data validation results, which have become more valuable this year with the inclusion of comparisons to prior-year data but which are still distributed via a labor-intensive e-mail process. The portal will provide for online collection of activity data from APSCN field staff and support for collection and analysis of help-desk calls, dissemination of data quality metrics and rapid communication of data error correction requests. ADE will use Metis Associates to implement a flexible but very basic initial solution, with the expectation that after the SIS cycle reporting process is eliminated, this facility may be significantly revised or re-implemented based on the SEA-to-LEA communication needs at that time.

(d) Institutional Support

Institutional Support Provided by Institutional Partners Vendors, ADE and DIS

To engage broad stakeholder participation and buy-in to Arkansas' SLDS vision and plan elements, early in the 2005 SLDS project ADE called together a broad, high-level Steering Committee representing stakeholders from all affected communities and presented and engaged discussion by participants around the major SLDS plan elements. The group, which was chaired by the Project Director, included legislators, representatives from several ADE administrative units, the Arkansas Department of Information Systems, the Departments of Workforce Education and Higher Education, representatives from local school districts and educational service cooperatives, and consultants. The Project Director and his staff have held numerous special forums and presentations and other regular and ad hoc interactions with stakeholders to

maintain stakeholder participation and ensure communication among the many groups and individuals. Arkansas has also taken initial steps to bring important cross-organizational partnerships and collaborations into being. In 2009 and beyond, ADE will continue to maintain and strengthen this institutional support environment. It will devote new and very substantial additional efforts to more closely align these institutional partners to the objectives of the SLDS initiative and to encourage them to contribute more within their spheres of expertise to help meet project objectives. ADE plans for strengthening of institutional support from individual partners, as has been discussed previously, includes those addressing cross-agency matching initiatives carried out with Arkansas institutions of higher education, workforce, and human services organizations; initiatives Arkansas is pursuing with CRESSI and MC3; and partnerships Arkansas has pursued and/or will pursue with the Arkansas Leadership Institute, the Arkansas Regional Cooperatives, the University of Arkansas, and others. Arkansas Regional Cooperatives, in particular, are making, and will continue to make, a huge contribution and are deeply engaged, as are their constituent districts, in advancing SLDS, with many having mandated the use of Triand facilities throughout their jurisdictions.

The scope of institutional support for Arkansas' SLDS is also measured in terms of the internal resources that ADE is applying and continues to apply to SLDS work, including commitments to its vendor partners. Arkansas has continued to dedicate internal staff resources at a level equal to or in excess of the percent dedication indicated in the original 2005 SLDS grant application. In addition, an increasing number of individuals within ADE and the University of Arkansas who were not identified in the original grant application non-federal resource budget have become increasingly involved in the SLDS initiative. Recently, ADE staff involved in the agency's child nutrition and special education programs have become involved in regular discussions related to the planned integration of these data sets within the SLDS environment, and representatives from the National Office for Research, Measurement and Evaluation Systems (NORMES) have become involved in discussions of alignment between the SLDS and AYP and other educational performance data that it has had historical responsibility for assembling and reporting.

Arkansas has also further involved its vendor partners in work extending beyond that envisioned in the original 2005 SLDS grant. Decision Ed has been reauthorized on an annual basis since 2007 to continue providing intensive support for the ongoing work associated with the rollout of the Cognos data warehouse. In addition to the work originally funded under the SLDS IES grant, Triand was engaged to provide Arkansas with its new unique student and teacher ID generating system, to develop the agency's new teacher licensure system and link this to the Triand interface, to support the Regional Cooperative Target Testing initiative, and most recently to implement its curriculum planning modules. Metis Associates has been engaged to develop a web-based automated version of the Arkansas data dictionary, which was not part of the original SLDS grant funding. As reflected in the non-federal project budget, ADE is committed, going forward, to assuming not only the ongoing support of SLDS components implemented in the 2005-2008 grant period, but is assuming a significant portion of the new incremental costs associated with the three-year expansion and improvement agenda outlined in this application, including one half of the Triand subscription upgrade costs being proposed. As also reflected in the non-federal section of the project budget, ADE is also expending, and will continue to expend, several million dollars annually with the Arkansas Department of Information Services

for computer and communication infrastructure services used to support the operation of the SLDS.

Sustainability

The SLDS is primarily a continuation of initiatives that were already underway in the state before 2005. Therefore, the administrative processes, infrastructure components, and policy commitments necessary for ongoing sustainability are already embedded in the state's commitment to the operation of data systems needed by the state's educational establishment and are not significantly dependent on special or ad hoc structures or funding arrangements built exclusively around the IES award. ADE has fully provided for the financial sustainability of the main components of SLDS implementation that have occurred since 2005. The baseline Cognos data warehouse and Triand environments are fully assimilated as part of the state's educational information systems infrastructure funding, as is the ODQ, which was established as part of the state's SLDS initiative with funding in part from the 2005 IES SLDS grant. As in the past ADE will assume responsibility for ongoing sustainability of all SLDS components implemented as part of the three-year expansion and improvement agenda outlined in this application at the conclusion of the new grant, including those funded by the IES.

(e) Project Management Plan

Governance

Since the 2005 IES SLDS award, Arkansas has established a governance structure that addresses the legislative, administrative, and policy frameworks; stakeholder participation; and program and project management needed to ensure the effective implementation of the SLDS initiative. Governance of the state's SLDS project is fully integrated into the broad statewide governance structures through which Arkansas uses technology as a means to achieve the state's educational goals. Following the 2005 award, Arkansas assigned a senior ADE executive, James Boardman, Assistant Commissioner of the Division of Research and Technology, to the role of Project Director with responsibility for overall coordination of the effort. To ensure broad institutional support, the Project Director created a high-level steering committee comprising institutional stakeholders from throughout the state. To carry out the work of planning, coordinating, and implementing SLDS across several ADE organizational units, vendor organizations, and external stakeholders, ADE created the ODQ and assigned a Project Manager and other staff. The ODQ has since worked in conjunction with and through other agency units to coordinate project work. Implementation of SLDS has also been coordinated through an ongoing Data Warehouse Steering Committee comprising staff from APSCN, Cognos consultants, the ODQ staff, and others who meet regularly to address issues and to plan and monitor the work. The entire process is coordinated within the larger ADE administrative structure, and the responsibility for SLDS is ultimately delegated by the ADE Commissioner.

As ADE moves into a new three-year phase of activity, it recognizes that it is increasingly confronted with new and more complex governance issues, and that the advance of SLDS is forcing ADE to address a set of cultural, political, organizational, and business process issues not fully recognized at the beginning of the project. As the SLDS expands and engages more

internal ADE units and more institutional partners in the state, ADE increasingly confronts the need for collaboration and agreement involving changes in the historical organizational frameworks and business processes already in place. In many cases, these are built around the architecture of data silos of the legacy information system environment that the SLDS is displacing. In 2009-2012, ADE will address the re-architecting of a number of these relationships, both within the educational enterprise and between the educational enterprise and its institutional partners, to better align these with the capabilities of the new information resources and business processes they enable.

Project Management

In 2005 and early 2006, ADE assigned a Project Director, Project Manager, and other staff, and established an ODQ that acts in the role of a Project Management Office to manage the work associated with the SLDS initiative. The ODQ works in conjunction with the Data Warehouse Steering Committee that meets bi-weekly to address issues and to plan and monitor the work, which is tracked through a MS Project Plan that provides a comprehensive and detailed view of progress across multiple sub-initiatives underway at any time. This project management environment, which has served the project well for the last three years, will continue in 2009-11, although it will be strengthened. As described in the Resources section of this application, ADE will add two new Assistant Project Managers in the ODQ to provide more focused attention to each element of the project activity outlined in this application, which is not possible with current staffing. One Assistant Project Manager will be tasked with overseeing and managing the work associated with planning and implementing the new performance management environment and the visually oriented user interfaces for the SLDS (i.e., dashboards and scorecards), allowing this work to be addressed on a priority basis. A second Assistant Project Manager will negotiate agreements with the Arkansas Leadership Institute, the University of Arkansas, Arkansas Regional Cooperatives, and others pertaining to the initiatives for training, professional development, and best practices in the area of DDDM, as well as negotiating agreements to promote appropriate analysis and dissemination of results from matching ADE files with those of external agencies and promoting targeted research initiatives. The existing Assistant Project Manager within the ODQ will oversee the new Triand initiatives and other remaining project initiatives to strengthen and consolidate the SLDS.

Detailed project plans, further elaborating the Timeline included in this application, will be developed and maintained with respect to all work assigned to each of the Assistant Project Managers, and their progress will be reviewed bi-weekly within the Data Warehouse Steering Committee. ADE will use Metis Associates as a professional project management consulting and support resource that will assist ADE in maintaining formal plans, developing periodic status reports, and handling risk management, problem, and change management as it pertains to these plans.

Adding the Assistant Project Managers will also allow the Project Director and Project Manager to devote more attention to the enterprise architecture and organizational relationship issues described above, cementing the institutional relationships at the most senior levels, as well as providing overall leadership for all project work.

Evaluation

ADE will rely on Metis Associates, which is conducting the current SLDS evaluation, for evaluation services over the new three-year period. Although the evaluation of the initial grant is still underway and the final outcomes are pending the analysis of data, the design of the present grant incorporates learnings from the formative evaluation of the first grant.

In Years 1 and 2, Metis will conduct a formative evaluation of system expansion and will provide ADE, its federal partners, and local collaborators with quarterly reports on (1) the extent to which the system has been developed and implemented in accordance with the design, and (2) the quality and effectiveness of the system in meeting the needs of stakeholders. As part of its initial work, Metis will collaborate with ADE to develop clear evaluation criteria for determining successful development/implementation, quality, and effectiveness in meeting its goals. Proposed methods of data collection will include interviews and focus groups at the state level. As implementation progresses, surveys will be administered to users to determine whether the system is being used as designed. In addition, implementation documentation will be collected and analyzed to help identify areas in need of improvement.

Metis will also design a summative evaluation, in consultation with ADE, federal partners, and other partners and collaborators. The summative evaluation, which will be planned during the second year of the project and implemented in Year 3, will measure the effectiveness of the longitudinal system in meeting the objectives set forth in this proposal. The methods used for the summative evaluation will be selected in Year 2 in accordance with the evaluation design and may include surveys, usability testing, opinion polls, and information obtained through public and community forums, as well as analyses of student achievement data. ADE agrees to participate in a national SLDS evaluation to determine the quality of the data included in the data systems, and will cooperate with the U. S. Department of Education on such an evaluation.

(f) Project Personnel and Resources

Project Personnel

This section highlights the qualifications, roles, and responsibilities of key individuals, along with the percent of time to be devoted in each of the three years of this project. Resumes for these key ADE personnel are provided in Section 10 of this proposal. All participate on the SLDS Steering Committee.

James Boardman, who will continue to serve as the Project Director, is the Assistant Commissioner of the Division of Research and Technology. One of the primary responsibilities of this division is to analyze data and produce informational reports for policy makers, educators, business and industry leaders, and the general public. Mr. Boardman provides advice and oversight to the group and has special responsibility with respect to the data that are being disseminated by means of the new warehousing environment. Mr. Boardman will continue to provide overall leadership to SLDS.

Bill Goff, the Assistant Commissioner for the Division of Fiscal and Administrative Services in the Internal Administration Section of ADE, oversees the financial accounting system of the agency and develops and oversees the agency's budget.

Neal Gibson is the Project Manger in the Office of Data Quality and oversees the overall work of the SLDS project.

Kay Tepera, Assistant Manager of the Office of Data Quality, assists the ODQ Project Manager and is responsible for monitoring the links between Pentamation and Cognos/Triand and troubleshoots problems with end users when these links fail to operate as intended.

Danita Hyrkas, the APSCN Internal Operations Coordinator, is responsible for coordinating meetings, keeping minutes, etc. Ms. Hyrkas will continue in this role and will provide subject matter expertise related to APSCN issues.

Kathleen Crain is the Financial Applications Manager and is responsible for FMS (financial data from Pentamation and financial reporting). Ms. Crain is primarily responsible for financial data quality. She will continue to supply expertise and act as the steward for financial data.

Carmen Jordan, the Student Applications Manager, is responsible for SMS (student data contained in the Pentamation environment) and will act as the steward for SMS data.

Charity Smith is the director of Accountability for ADE and will contribute in this capacity to guiding the project.

Cody Decker is an ADE technical Project Manager and coordinates programming of SIS cycle pulls and oversees EDFacts reporting staff.

The ODQ Project Manager and Assistant Project Manger will be dedicated 100% to the project. All other staff listed will be dedicated 20% to the project with the exception of Cody Decker and Charity Smith who will be dedicated 50% and 15%, respectively. Dedication for all staff will remain constant over the three years.

In addition to these key staff members, the ADE plans to hire two additional Assistant Project Managers in the ODQ (100% dedication in all three years), who will report to the Project Manager and provide overall management for designated areas of project activity, as described above. ADE will also add an internal consultant-level technician (also 100% dedication in all three years) who is proficient in the Cognos 8 tools suite to facilitate knowledge transfer from ADE's external consultant team.

Resources

ADE will continue to make a major commitment of staff time and infrastructure resources from its regular budgetary funds. It is ADE's intention to assume, out of the state's regular budgetary resources, both the ongoing incremental cost of sustaining the SLDS environment implemented in the last three years, as well as a major portion of the incremental costs for its three-year

expansion and improvement agenda. However, to pursue all of these initiatives simultaneously represents a significant new level of resource commitment beyond what the state alone can support. Arkansas is, therefore, seeking new IES grant funds to partially support its new SLDS project agenda. This will allow it to accelerate the pace of work and to expand its scope, working on multiple fronts to more fully address the vision shared by Arkansas, the IES, the Data Quality Campaign, and others of what the next phase of national SLDS work should seek to achieve. The resources requested from the IES include resources to support the expansion of ADE staff assigned to the project, the acquisition of additional professional consulting services, and the purchase of software licenses and software subscription services as outlined further below.

Arkansas Staff Resource Augmentation

In 2006, Arkansas added a dedicated Project Manager and Assistant Project Manager in its newly formed Office of Data Quality. However, this level of resourcing is insufficient to sustain the activity necessitated by the new data systems currently installed and carry out the enhancement/expansion initiatives described in this application. To move forward in coordinating day-to-day management of the new agenda of planned activities, the ODQ plans to assign two additional Assistant Project Managers to manage designated sub-activities within the larger initiative, as previously described. These Assistant Project Managers will be dedicated on a full-time basis, unlike other ADE/DIS staff outside of the Office of Data Quality whose dedication is either part-time or in-kind. In addition, ADE, which has experienced some difficulty in effecting knowledge transfer from Decision Ed to the in-house ADE technical staff as rapidly as it would like, recognizes the need to add an internal resource to the ADE technical staff. This staff member will become the lead ADE expert for the Cognos technical suite, performing data modeling and other tasks to be addressed with the roll out of the new visualization tools, thereby reducing ADE's current heavy reliance on outsourced services.

Travel

Arkansas is seeking IES support for travel of key staff to grantee meetings and other professional conference where Arkansas will continue, as it has in the past three years, to contribute to the national discussion on the implementation of SLDS and to share lessons learned in the state.

Contracts

IBM/Cognos. ADE will purchase an upgrade to its Cognos 8 BI tools suite license from the present license to an unrestricted site license.

Decision Ed. ADE will continue to use consulting support from Decision Ed to assist in integrating new elements described in this application into the Cognos data warehouse and to continue transferring knowledge from Decision Ed technicians to ADE technical staff. Decision Ed has a unique and in-depth knowledge of the Cognos EPMS data warehouse data structures and Cognos technical environment. Continued use of this resource over the next three years will be necessary to carry out the several improvement and expansion initiatives described in this application that involve the Cognos 8 tools.

Triand. ADE will contract with Triand to upgrade its current statewide subscription to enable the state to expand target testing and curriculum planning modules statewide and to implement other features including those related to staff professional development and integration of local data sets.

Metis Associates. Metis Associates will supply management consulting services to support ADE in many areas of the project, including project planning/management, data quality assurance, standards, policy and procedures development, evaluation, and other areas described in the application. Metis will also provide technical development services pertaining to the Unified Data Dictionary and collaboration portals. Metis Associates has worked in a similar role for the last three years.

Surveys of Enacted Curriculum. ADE will purchase services from the CCSSO pertaining to its Surveys of Enacted Curriculum (SEC) program, and make the SEC resources available for schools as part of their school improvement programs.

Developers of Online Professional Development Tools. ADE will acquire the services of professional online CBT module developers—vendors to be selected at a future date to help strengthen ADE’s CBT delivery capacity.

Data Quality Auditor. In the third year of the project ADE will acquire the services of an independent auditor to conduct a data quality audit.

Commitment letters; product literature, including a description of the CCSSO SEC program; and a description of the pilot DDDM initiative with CRESST-AACC and MC3, are included in Appendix A— Optional Attachments.

Project Narrative

Other Narrative

Attachment 1:

Title: Pages: Uploaded File: **1236-ADE.Budget.NonConstr.Programs.FINAL.92208.pdf**

Attachment 2:

Title: Pages: Uploaded File: **1237-ADE.Timeline.App.AB.FINAL.92208.pdf**

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget

ADE SLDS - IES Grant Application - 3 Yr Grand Total Calculation - DOE Funds	
Year	Annual Total
Yr1	\$1,628,096
Yr2	\$1,655,175
Yr3	\$1,684,720
Grand Total - 3 Years	\$4,967,991
ADE SLDS - IES Grant Application - 3 Yr Grand Total Calculation - NF Funds	
Year	Annual Total
Yr1	(b)(4)
Yr2	(b)(4)
Yr3	(b)(4)
Grand Total - 3 Years	\$

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

Year 1 - U.S. Department of Education Funds

		FTE	Rate	Value	Totals
1	Personnel				
	Position				
	Asst. Project Manager	1	\$60,000 per year	\$60,000	
	Asst. Project Manager	1	\$60,000 per year	\$60,000	
	ADE Cognos Technical Specialist	1	\$60,000 per year	\$60,000	
	Personnel total	3			\$180,000
2	Fringe benefits				
	Social Security	\$180,000	7.65%	\$13,770	
	Health Insurance	3	\$4,200	\$12,600	
	Unemployment Insurance	\$180,000	2.10%	\$3,780	
	Worker's Compensation	\$180,000	1.03%	\$1,854	
	Retirement	\$180,000	14.00%	\$25,200	
	Fringe benefits total				\$57,204
3	Travel				
	Travel to Washington DC for grantee meetings				
	2 ADE staff to DC meetings; total of 2 flights @ \$750			\$1,500	
	1 night lodging @ \$200 x 2 people			\$400	
	2 days of food @ \$50 x 2 people			\$200	
	ground transportation			\$200	
	Travel to other professional conferences for dissemination purposes				
	2 ADE staff to 4 mtgs. = 8 flights @ \$550			\$4,400	
	1 night lodging @ \$200 x 4 trips x 2 staff			\$1,600	
	8 days of food @ \$50 x 2 people			\$800	
	ground transportation			\$400	
	Travel total				\$9,500
4	Equipment				
	None			\$0	
	Equipment total				\$0
5	Supplies				
	None			\$0	
	Supplies total				\$0
6	Contractual				
	IBM/Cognos (Cognos 8 Site License)			\$413,333	
	Decision Ed (Cognos integration services))			\$150,000	
	TRIAND (Subscription upgrade)			\$230,000	
	Metis Associates, Inc. (management consulting, data quality, evaluation)			\$380,050	
	PD CBT Services (CBT training modules)			\$40,000	
	CCSSO SEC (core membership)			\$20,000	
	Contractual total				\$1,233,383
7	Construction				
	None			\$0	
	Construction total				\$0
8	Other				
				\$0	
	Other total				\$0
9	Total direct costs				\$1,480,087

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

10	Indirect costs (total * 10%)					\$148,009
12	Grand total					\$1,628,096

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

Year 2 - U.S. Department of Education Funds						
1	Personnel		FTE	Rate	Value	Totals
	Position					
	Asst. Project Manager		1	\$61,500 per year	\$61,500	
	Asst. Project Manager		1	\$61,500 per year	\$61,500	
	ADE Cognos Technical Specialist		1	\$61,500 per year	\$61,500	
	Personnel total		3			\$184,500
2	Fringe benefits					
	Social Security		\$184,500	7.65%	\$14,114	
	Health Insurance		3	\$4,200	\$12,600	
	Unemployment Insurance		\$184,500	2.10%	\$3,875	
	Worker's Compensation		\$184,500	1.03%	\$1,900	
	Retirement		\$184,500	14.00%	\$25,830	
	Fringe benefits total					\$58,319
3	Travel					
	Travel to Washington DC for grantee meetings					
	2 ADE staff to DC meetings; total of 2 flights @ \$750				\$1,500	
	1 night lodging @ \$200 x 2 people				\$400	
	2 days of food @ \$50 x 2 people				\$200	
	ground transportation				\$200	
	Travel to other professional conferences for dissemination purposes					
	2 ADE staff to 4 mtgs. = 8 flights @ \$550				\$4,400	
	1 night lodging @ \$200 x 4 trips x 2 staff				\$1,600	
	8 days of food @ \$50 x 2 people				\$800	
	ground transportation				\$400	
	Travel total					\$9,500
4	Equipment					
	None				\$0	
	Equipment total					\$0
5	Supplies					
	None				\$0	
	Supplies total					\$0
6	Contractual					
	IBM/Cognos (Cognos 8 Site License)				\$413,333	
	Decision Ed (Cognos integration services))				\$150,000	
	TRIAND (Subscription upgrade)				\$230,000	
	Metis Associates, Inc. (management consulting, data quality, evaluation)				\$399,053	
	PD CBT Services (CBT training modules)				\$40,000	
	CCSSO SEC (core membership)				\$20,000	
	Contractual total					\$1,252,386
7	Construction					
	None				\$0	
	Construction total					\$0
8	Other					
	Other total					\$0
9	Total direct costs					\$1,504,705

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

10	Indirect costs (total * 10%)		\$150,470
12	Grand total		\$1,655,175

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

Year 3 - U.S. Department of Education Funds

Year 3 - U.S. Department of Education Funds				
1 Personnel	FTE	Rate	Value	Totals
Position				
Project Manager	1	\$63,038	per year	\$63,038
Asst. Project Manager	1	\$63,499	per year	\$63,499
ADE Cognos Technical Specialist	1	\$63,499	per year	\$63,499
Personnel total	3			\$190,035
2 Fringe benefits				
Social Security	\$190,035	7.65%		\$14,538
Health Insurance	3	\$4,200		\$12,600
Unemployment Insurance	\$190,035	2.10%		\$3,991
Worker's Compensation	\$190,035	1.03%		\$1,957
Retirement	\$190,035	14.00%		\$26,605
Fringe benefits total				\$59,691
3 Travel				
Travel to Washington DC for grantee meetings				
2 ADE staff to DC meetings; total of 2 flights @ \$750				\$1,500
1 night lodging @ \$200 x 2 people				\$400
2 days of food @ \$50 x 2 people				\$200
ground transportation				\$200
				\$0
Travel to other professional conferences for dissemination purposes				\$0
2 ADE staff to 4 mtgs. = 8 flights @ \$550				\$4,400
1 night lodging @ \$200 x 4 trips x 2 staff				\$1,600
8 days of food @ \$50 x 2 people				\$800
ground transportation				\$400
Travel total				\$9,500
4 Equipment				
None				\$0
Equipment total				\$0
5 Supplies				
None				\$0
Supplies total				\$0
6 Contractual				
IBM/Cognos (Cognos 8 Site License)				\$413,333
Decision Ed (Cognos integration services))				\$150,000
TRIAND (Subscription upgrade)				\$230,000
Metis Associates, Inc. (management consulting, data quality, evaluation)				\$419,005
PD CBT Services (CBT training modules)				\$40,000
CCSSO SEC (core membership)				\$20,000
Contractual total				\$1,272,338
7 Construction				
None				\$0
Construction total				\$0
8 Other				
None				\$0
Other total				\$0
9 Total direct costs				\$1,531,564

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

10	Indirect costs (total * 10%)								\$153,156
12	Grand total								\$1,684,720

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget
 Year 1 - Non-Federal Funds

1 Personnel		FTE	Rate	Value	Totals
Position					
Asst Commissioner	Jim Boardman (Proj Dir)	(b)(4)			
Project Mgr, APSCN	Cody Decker				
Asst Commissioner	Bill Goff				
Fin Applic Mgr	Kathleen Crain				
State Rep Mgr	Clara Knox				
APSCN Coordinator	Danita Hyrkas				
SMS Mgr	Carmen Jordan				
Dir. Accountability	Charity Smith				
Project Mgr, ODQ	Neal Gibson				
Asst Proj Mgr, ODQ	Kay Tempara				
	Personnel total				
2 Fringe benefits					
Social Security					
Health Insurance					
Unemployment Insurance					
Worker's Compensation					
Retirement					
	Fringe benefits total				
3 Travel					
Travel to other professional conferences for disser					
	2 ADE staff to 3 mtgs. = 6				
	1 night lodging @ \$200 x 3				
	6 days of food @ \$50 x 2				
	ground transportation				
	Travel total				
4 Equipment					
None					
	Equipment total				
5 Supplies					
None					
	Supplies total				
6 Contractual					
TRIAND (current and upgraded subscription comp					
Decision Ed (Cognos integration services))					
Data Processing/Access Services - DIS					
PD CBT Services (CBT training modules)					
CCSSO SEC (Planning and professional developm					
	Contractual total				
7 Construction					
None					
	Construction total				
8 Other					
None					
	Other total				

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget

9	Total direct costs					(b)(4)
10	Indirect costs (total * 10%)					
12	Grand total					

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget
 Year 2 - Non-Federal Funds

		FTE	Rate	Value	Totals
1	Personnel				
	Position				
	Asst Commissioner	Jim Boardman (Proj Di	(b)(4)		
	Project Mgr, APSCN	Cody Decker			
	Asst Commissioner	Bill Goff			
	Fin Applic Mgr	Kathleen Crain			
	State Rep Mgr	Clara Knox			
	APSCN Coordinator	Danita Hyrkas			
	SMS Mgr	Carmen Jordan			
	Dir. Accountability	Charity Smith			
	Project Mgr, ODQ	Neal Gibson			
	Asst Proj Mgr, ODQ	Kay Tempara			
	Personnel total				
2	Fringe benefits				
	Social Security				
	Health Insurance				
	Unemployment Insurance				
	Worker's Compensation				
	Retirement				
	Fringe benefits total				
3	Travel				
	Travel to other professional conferences for dis				
		2 ADE staff to 3 mtgs. =			
		1 night lodging @ \$200			
		6 days of food @ \$50 x			
		ground transportation			
	Travel total				
4	Equipment				
	None				
	Equipment total				
5	Supplies				
	None				
	Supplies total				
6	Contractual				
	TRIAND (current and upgraded subscription con				
	Decision Ed (Cognos integration services))				
	Data Processing/Access Services - DIS				
	PD CBT Services (CBT training modules)				
	IBM/Cognos (Support and maintenance)				
	Contractual total				
7	Construction				
	None				
	Construction total				
8	Other				
	None				
	Other total				

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget

9	Total direct costs				\$(b)(4)
10	Indirect costs (total * 10%)				
12	Grand total				\$

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget
 Year 3 - Non-Federal Funds

Year 3 - Non-Federal Funds						
1	Personnel		FTE	Rate	Value	Totals
	Position					
	Asst Commissioner	Jim Boardman (Proj Dir)	(b)(4)			
	Project Mgr, APSCN	Cody Decker				
	Asst Commissioner	Bill Goff				
	Fin Applic Mgr	Kathleen Crain				
	State Rep Mgr	Clara Knox				
	APSCN Coordinator	Danita Hyrkas				
	SMS Mgr	Carmen Jordan				
	Dir. Accountability	Charity Smith				
	Project Mgr, ODQ	Neal Gibson				
	Asst Proj Mgr, ODQ	Kay Tempara				
		Personnel total				
2	Fringe benefits					
	Social Security					
	Health Insurance					
	Unemployment Insurance					
	Worker's Compensation					
	Retirement					
		Fringe benefits total				
3	Travel					
	Travel to other professional conferences for disse					
		2 ADE staff to 3 mtgs. = 6				
		1 night lodging @ \$200 x				
		6 days of food @ \$50 x 2				
		ground transportation				
		Travel total				
4	Equipment					
	None					
		Equipment total				
5	Supplies					
	None					
		Supplies total				
6	Contractual					
	TRIAND (current and upgraded subscription comp					
	Decision Ed (Cognos integration services))					
	Data Processing/Access Services - DIS					
	PD CBT Services (CBT training modules)					
	IBM/Cognos (Support and maintenance)					
	Data Quality Auditor					
		Contractual total				
7	Construction					
	None					
		Construction total				
8	Other					
	None					
		Other total				

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

9	Total direct costs				(b)(4)
10	Indirect costs (total * 10%)				
12	Grand total				

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

Metis Associates, Inc.					
Supporting Budget Schedules - by Consulting Activity Area					
		Mgmt Consulting (1)	Data Quality (2)	Evaluation	Total
Consulting Activity Area					
Year 1		\$181,913	\$60,638	\$137,500	\$380,050
Year 2		\$191,008	\$63,669	\$144,375	\$399,053
Year 3		\$200,559	\$66,853	\$151,594	\$419,005
Grand Total:		\$573,479	\$191,160	\$433,469	\$1,198,108
1. Includes management consulting, project planning and management support, and policy & procedure development.					
2. Includes data quality project support and data dictionary & collaboration portal web					
Supporting Budget Schedules - by Consulting Days and Rates					
Consultant Level (3)	Yr 1 Daily Rate	Days (1)	Yr 1 Cost	Yr 2 Cost (2)	Yr 3 Cost (2)
Managing Senior Associate	\$2,105.0	100	\$210,502	\$221,027	\$232,079
Senior Associate	\$1,576.0	40	\$63,038	\$66,190	\$69,500
Senior Research or Systems Associate	\$1,260.8	40	\$50,430	\$52,952	\$55,600
Research, Systems or Program Development	\$956.8	30	\$28,705	\$30,140	\$31,647
Consultant Totals		210	\$352,676	\$370,309	\$388,825
T&E			\$27,374	\$28,743	\$30,180
Grand Total			\$380,050	\$399,053	\$419,005
3 Year Total					\$1,198,108
1. Consulting days supplied remain constant across all three years.					
2. Reflects 5% annual increment in consultant rates each year.					

Arkansas Department of Education
 SLDS Enhancement Project
 Section C - Itemized Budget

Triand					
Supporting Budget Schedules					
	NF			DOE	
	Baseline Functionality	New Functionality	Subtotal NF	New Functionality	Total NF + DOE
Year 1	\$460,000	\$230,000	\$690,000	\$230,000	\$920,000
Year 2	\$460,000	\$230,000	\$690,000	\$230,000	\$920,000
Year 3	\$460,000	\$230,000	\$690,000	\$230,000	\$920,000
Grand Total:	\$1,380,000	\$690,000	\$2,070,000	\$690,000	\$2,760,000
<i>Baseline Functionality - Transcript Transfer, ID Generation - Purchased beginning 2005</i>					
<i>New Functionality - Target Testing, Curriculum Management, Local System Integration, Staff ID, Professional Development, Parent Portal - Not yet Purchased</i>					

Arkansas Department of Education
SLDS Enhancement Project
Section C - Itemized Budget

Decisions Ed							
Supporting Budget Schedules							
Consulting Activity Area	NF			DOE		Total	
	Currently Installed Features Support			Expansion Features Support			
Year 1	\$220,000			\$150,000		\$370,000	
Year 2	\$146,520			\$150,000		\$296,520	
Year 3	\$73,260			\$150,000		\$223,260	
Grand Total:	\$439,780			\$450,000		\$889,780	
Supporting Budget Schedules - by Consulting Days and Rates							
Consultant Level (3)	Yr 1 Daily Rate	Days			Yr 1 Cost	Yr 2 Cost (2)	Yr 3 Cost (2)
		Yr1	Yr2	Yr3			
Senior Consultant	\$1,160.0	125	92	65	\$144,710	\$111,650	\$79,170
Consultant	\$880.0	125	92	65	\$109,780	\$84,700	\$60,060
Report Specialist	\$720.0	125	92	65	\$89,820	\$69,300	\$49,140
Consultant Totals		374.2	275	195	\$344,310	\$265,650	\$188,370
T&E					\$25,690	\$30,870	\$34,890
Grand Total					\$370,000	\$296,520	\$223,260
3 Year Total							\$889,780
<i>2. Reflects 5% annual increment in consultant rates each year.</i>							

Timeline

ID	Task Name	Start	Finish
1	1 Enhance SLDS Tools Set	3/2/09	2/29/12
2	1.1 Implement Cognos and Open Source Visualization Tools and Performance Management Environment	3/2/09	2/29/12
3	1.1.1 Establish prerequisites	3/2/09	5/22/09
4	1.1.1.1 Complete performance management/visual tools pilot begun in 2008 and assess	3/2/09	5/22/09
5	1.1.1.2 Acquire Cognos 8 site license	3/2/09	5/22/09
6	1.1.1.3 Establish statewide Cognos user account security and maintenance environment	3/2/09	5/22/09
7	1.1.1.4 Standardize on open source tool set for visual analytics against student performance data	3/2/09	3/2/09
8	1.1.2 Define performance management environment and supporting visual interface features	3/2/09	7/17/09
9	1.1.2.1 Engage stakeholders- develop of Year 1 performance management plan elements	3/30/09	5/22/09
10	1.1.2.2 Define role based performance measures and metrics at operational, tactical and strategic levels	4/27/09	6/19/09
11	1.1.2.3 Define visual dashboard and scorecard interfaces appropriate for each role /level	5/25/09	7/17/09
12	1.1.2.4 Define analytic capabilities to be supported in the visual interface	3/2/09	6/19/09
13	1.1.3 Implement performance management/ visual tools environment - Year 1	6/22/09	2/26/10
14	1.1.3.1 Constrict Year 1 visual tools environment	6/22/09	8/14/09
15	1.1.3.2 Develop and deliver comprehensive training on performance management program	6/22/09	12/4/09
16	1.1.3.3 Deploy Year 1 dashboards, visual analytics and scorecard tools suite	9/14/09	2/26/10
17	1.1.3.4 Establish evaluation criteria and asses outcomes within framework of ongoing SLDS evaluating program	1/4/10	2/26/10
18	1.1.4 Carry out Year 2 - Year 3 expansion	3/1/10	2/29/12
19	1.1.4.1 Begin phased augmentation of initial Year 1 deployment	3/1/10	2/24/12
20	1.1.4.2 Conduct on going evaluation, and adjust performance management and visual tools components as indicated	8/19/10	2/29/12
21	1.2 Expand Triand Target Testing, Curriculum Development Modules Statewide, and Add Other Modules	3/2/09	2/29/12
22	1.2.1 Engage new districts on implementation of Triand add-on features	3/2/09	4/24/09
23	1.2.2 Upgrade Triand subscription	3/2/09	4/24/09
24	1.2.3 Develop implementation plan	4/27/09	5/22/09
25	1.2.4 Deploy add-on modules statewide	5/28/09	2/29/12
26	1.2.5 Train users on new features	6/25/09	2/29/12
27	1.2.6 Establish membership in CCSSO's Surveys of Enacted Curriculum (SEC) and coordinate with Curriculum Development initiatives	5/28/09	2/29/12
28	2 Augment SLDS Data Resources	9/1/09	2/24/12
29	2.1 Integrate Higher Education, Teacher Licensure, Professional Development, Special Education and Child Nutrition Data	9/1/09	2/13/12
30	2.1.1 Reach agreement with data owners on ownership and business process impacts	9/1/09	10/26/09
31	2.1.2 Map source data to SLDS (Cognos and Triand)	9/1/09	2/15/10
32	2.1.3 Develop and test ETL routines	11/24/09	5/10/10
33	2.1.4 Develop and test reports and visual user interface components	5/11/10	7/5/10

Timeline

ID	Task Name	Start	Finish
34	2.1.5 Begin scheduled loading to Cognos data warehouse and Triand and begin provision of access to new data resources to end users	7/6/10	2/13/12
35	2.1.6 Incorporate in CBT modules and develop and deliver instructor led training (ILT)	8/3/10	2/13/12
36	2.2 Integrate Local Data Sets	3/1/10	2/24/12
37	2.2.1 Engage districts and inventory target data sets/systems	3/1/10	5/21/10
38	2.2.2 Asses feasibility of automated versus user initiated uploads to Triand	3/1/10	5/21/10
39	2.2.3 Develop comprehensive implementation plan	5/24/10	7/16/10
40	2.2.4 Construct, user-activated upload Interface and/or web-based adaptors	7/19/10	12/31/10
41	2.2.5 Modify Triand interface to incorporate new data sources	7/19/10	9/10/10
42	2.2.6 Develop additional Triand CBT and ILT training modules	1/3/11	2/25/11
43	2.2.7 Deploy to Triand users	2/28/11	2/24/12
44	2.2.8 Conduct ILT and CBT training	2/28/11	2/24/12
45	3 Build a Culture of DDDM	3/2/09	2/24/12
46	3.1 Conduct DDDM Pilot and Launch DDDM Professional Development Initiative Statewide	3/2/09	2/24/12
47	3.1.1 Conclude 2008 pilot activities (CRESST, MC3, Pilot Co-operatives)	3/2/09	9/11/09
48	3.1.1.1 Complete pilot activities	3/2/09	5/22/09
49	3.1.1.2 Codify best practices definition from lessons learned	5/25/09	9/11/09
50	3.1.2 Engage institutional partners	3/2/09	8/14/09
51	3.1.2.1 Open discussion with Arkansas Leadership Institute, University of Arkansas, and Regional Co-operatives on DDDM integration	3/2/09	5/22/09
52	3.1.2.2 Conclude Agreements on DDDM curricula and professional development delivery	5/25/09	8/14/09
53	3.1.3 Implement statewide DDDM curriculum and professional development programs	9/14/09	2/24/12
54	3.1.3.1 Develop state standard DDDM curriculum	9/14/09	12/4/09
55	3.1.3.2 Develop statewide DDDM professional development programs and implementation plans	12/7/09	1/1/10
56	3.1.3.3 Implement first year statewide DDDM professional development programs	1/4/10	12/31/10
57	3.1.3.4 Evaluate, enhance, expand, and maintain	1/3/11	2/24/12
58	3.2 Augment SLDS Tools Training	3/2/09	2/24/12
59	3.2.1 Engage Regional Co-operatives, districts , Triand, Decision Ed, and ADE resources in planning and resource commitment to expand tools	3/2/09	6/19/09
60	3.2.1.1 Develop comprehensive needs assessment	3/2/09	5/22/09
61	3.2.1.2 Develop near-term statewide tools training plan	5/25/09	6/19/09
62	3.2.2 Implement near term tools training plan	6/22/09	2/26/10
63	3.2.2.1 Develop tools training curriculum and training materials (ILT, guides, and context enhanced CBT videos)	6/22/09	12/4/09
64	3.2.2.2 Deliver statewide training refresher sessions, and new user training as needed	9/14/09	2/26/10
65	3.2.2.3 Deploy new context enhanced CBT modules	9/14/09	9/14/09
66	3.2.3 Modify/realign tools training to address visualization tools and DDDM integration	12/7/09	2/24/12
67	3.2.3.1 Developed Revised ILT curriculum and CBT modules	12/7/09	2/26/10
68	3.2.3.2 Develop new statewide training initiative on realigned curriculum	3/1/10	4/23/10
69	3.2.3.3 Deliver new tools training curriculum - coordinated with DDDM professional development activities	4/26/10	2/24/12

Timeline

ID	Task Name	Start	Finish
70	3.2.3.4 Deploy realigned CBT modules	4/26/10	2/24/12
71	3.3 Formalize Researcher Initiatives	3/2/09	2/24/12
72	3.3.1 Engage stakeholders to identify most critical research questions at school, district and SEA level	3/2/09	8/14/09
73	3.3.2 Establish DDDM oriented planning framework, identifying research project sponsors, benefits, planned users of research findings, and potential resulting	8/17/09	12/4/09
74	3.3.3 Engage research community, and reach agreement on targeted projects to be pursued	12/7/09	2/26/10
75	3.3.4 Conduct targeted research projects	3/1/10	2/24/12
76	3.3.5 Disseminate results to sponsors	3/28/11	2/24/12
77	3.3.6 Engage sponsors in defining and planning action initiatives based on research findings	5/23/11	2/24/12
78	3.3.7 Engage sponsors to pursue action initiatives	5/23/11	2/24/12
79	3.3.8 Establish evaluation criteria, and track and assess outcomes within framework of ongoing SLDS evaluating program	11/7/11	2/24/12
80	4 Share Data Across Agencies and Use Results in DDDM	3/2/09	2/24/12
81	4.1 Engage K-12 stakeholders	3/2/09	11/6/09
82	4.1.1 Review and assess, status of current matching effort in higher education, workforce, and human services)	3/2/09	5/22/09
83	4.1.2 Engage stakeholder and define specific issue to be investigated through match activity. Determine feasibility of investigations based on availability of	5/25/09	9/11/09
84	4.1.3 Develop prioritize list of targeted investigations to be pursued and investigations sponsors	9/14/09	11/6/09
85	4.2 Engage Researchers	11/9/09	2/26/10
86	4.2.1 Identify and engage appropriate research entries who will address K-12 Issue investigation using match results	11/9/09	2/26/10
87	4.2.1.1 Engage researcher community, reach agreement on roles and resource commitments, and identify/designate researchers to pursue	11/9/09	2/26/10
88	4.2.1.2 Determine LDS data needs to augment match files to support each investigations	11/9/09	1/29/10
89	4.3 Engage Match Partners	3/2/09	7/17/09
90	4.3.1 Review and assess adequacy of current agreements with higher education and work force match partners, including formalization in MOA as needed	3/2/09	4/24/09
91	4.3.2 Engage human service agencies and develop comprehensive match objectives and strategy, and incorporate in MOA	4/27/09	6/19/09
92	4.3.3 Identify and respond (consistent with FERPA regulations) to reciprocal requests from match partners for K-12 match data	4/27/09	7/17/09
93	4.4 Conduct Matches	4/27/09	2/24/12
94	4.4.1 Conduct Year 1 matches (higher education, workforce, human services)	4/27/09	2/26/10
95	4.4.2 Conduct Year 2 and Year 3 matches	3/1/10	2/24/12
96	4.5 Perform Research Analysis of Match Data	8/17/09	2/24/12
97	4.5.1 Augment match files with additional data from LDS as required for each investigation	8/17/09	2/24/12
98	4.5.2 Conduct analysis and incorporate in investigation findings report	8/17/09	2/24/12
99	4.5.3 Share with investigation sponsors	11/9/09	2/24/12
100	4.6 Initiate Policy and Program Responses	3/1/10	2/24/12
101	4.6.1 Define appropriate policy and program responses	3/1/10	2/24/12
102	4.6.2 Implement policy program responses	3/29/10	2/24/12
103	4.6.3 Establish evaluation criteria and assess outcomes within framework of ongoing SLDS evaluation program	3/29/10	2/24/12
104	5 Ensure Data Quality	3/2/09	2/24/12

Timeline

ID	Task Name	Start	Finish
105	5.1 Complete Data Dictionary Population and Extend Environment	3/2/09	8/12/11
106	5.1.1 Complete current Unified Data Dictionary (UDD) population effort	3/2/09	7/16/10
107	5.1.2 Plan and execute UDD expansion and enhancement	3/2/09	8/12/11
108	5.1.2.1 Develop agency wide metadata inventory	3/2/09	1/29/10
109	5.1.2.2 Develop Plan for UDD expansion to incorporate new data collections and new metadata components	2/1/10	5/21/10
110	5.1.2.3 Engage UDD users and define prioritized functional enhancements to UDD web application	2/1/10	5/21/10
111	5.1.2.4 Develop specifications for technical expansion of UDD to address expanded requirements	5/24/10	7/16/10
112	5.1.2.5 Implement technical enhancements to UDD	7/19/10	11/5/10
113	5.1.2.6 Add additional metadata categories and additional data collections to UDD in accordance with plan	11/8/10	2/25/11
114	5.1.2.7 Plan and implement migration to ADE hosting and technical support	2/28/11	8/12/11
115	5.2 Implement Data Quality Measurement and Audit Programs	3/2/09	2/24/12
116	5.2.1 Develop data quality measurement Program	3/2/09	3/26/10
117	5.2.1.1 Confirm and adjust measurement criteria as needed	3/2/09	6/19/09
118	5.2.1.2 Determine metrics and measurement methodology and resources to be used and reporting approach for measurement program	6/22/09	12/4/09
119	5.2.1.3 Engage ADE units, data stewards, and districts and communicate measurement program elements	12/7/09	1/29/10
120	5.2.1.4 Define policies and procedures for school, district, and SEA and actions required to respond to measurement data to address systemic	12/7/09	3/26/10
121	5.2.2 Implement measurement program	2/1/10	2/24/12
122	5.2.2.1 Begin data quality measurement and reporting	2/1/10	2/24/12
123	5.2.2.2 Plan, execute integration of quality measurement reporting into dash-boarding and UDD environment	2/1/10	5/21/10
124	5.2.3 Implement data quality audit	9/1/11	2/15/12
125	5.2.3.1 Engage independent auditor to independently audit status of data quality	9/1/11	11/23/11
126	5.2.3.2 Receive, circulate, and review audit report	11/24/11	12/21/11
127	5.2.3.3 Adjust data quality program elements as needed to address audit findings	12/22/11	2/15/12
128	5.3 Ensure Real-Time Data Quality Reporting	9/1/09	1/17/11
129	5.3.1 Establish Data Quality Dashboards	9/1/09	2/15/10
130	5.3.2 Coordinate with Collaboration Portal	2/16/10	1/17/11
131	6 Strengthen, Complete, Extended Other SLDS Components	3/2/09	2/24/12
132	6.1 Ensure Documentation and Develop Standards, Policies, and Procedures.	3/2/09	2/24/12
133	6.1.1 Engage ADE units and develop inventory of needed documentation, standards, policies and procedures	3/2/09	6/19/09
134	6.1.2 Prioritize inventory list and assign responsible staff	6/22/09	8/14/09
135	6.1.3 Develop framework for review, approval, dissemination, and maintenance of written materials	8/17/09	10/9/09
136	6.1.4 Assign staff and draft high priority Year 1 materials based on prioritized list	10/12/09	2/26/10
137	6.1.5 Review and approve	11/9/09	2/26/10
138	6.1.6 Disseminate in hardcopy and in electronic form via ADE website	11/9/09	2/26/10
139	6.1.7 Assign staff and draft Year 2, Year 3 items	3/1/10	2/24/12
140	6.1.8 Review and approve	3/29/10	2/24/12

Timeline

ID	Task Name	Start	Finish
141	6.1.9 Disseminate in hardcopy and in electronic form via ADE website	3/29/10	2/24/12
142	6.2 Complete ED Facts Reporting Automation	3/2/09	8/14/09
143	6.2.1 Complete work needed to generate reports automatically from Cognos Data Warehouse	3/2/09	5/22/09
144	6.2.2 Test and deploy	5/25/09	8/14/09
145	6.3 Re-implement AS-IS Public Website	3/2/09	7/16/10
146	6.3.1 Develop plan and specification for AS-IS replacement site	3/2/09	6/19/09
147	6.3.2 Research/document business rules needed to replicate current reports	6/22/09	12/4/09
148	6.3.3 Assign developer team and develop AS-IS replacement site	12/7/09	5/21/10
149	6.3.4 Test and deploy	5/24/10	7/16/10
150	6.4 Replace SIS Cycle Reporting Process	1/3/11	2/24/12
151	6.4.1 Engage ADE/DIS and district staff, develop strategy for certifying district data on-line through an interface provided in the Cognos data warehouse	1/3/11	4/22/11
152	6.4.2 Design, build certification process application components within Cognos Data Warehouse	4/25/11	11/4/11
153	6.4.3 Create policy framework	4/25/11	8/12/11
154	6.4.4 Conduct Integration test followed by parallel testing	8/15/11	12/2/11
155	6.4.5 Cutover to new on-line certification system	12/5/11	1/27/12
156	6.4.6 Retire SIS	1/30/12	2/24/12
157	6.5 Establish a Collaboration Portal	2/1/10	12/3/10
158	6.5.1 Engage ADE data stewards and district counterparts, determine collaboration needs	2/1/10	4/23/10
159	6.5.2 Define system requirements and design collaboration portal user interface	4/26/10	7/16/10
160	6.5.3 Develop portal	7/19/10	10/8/10
161	6.5.4 Test and deploy	10/11/10	12/3/10
162	7 Establish Governance and Provide Project Management	3/2/09	8/12/11
163	7.1 Augment ODQ staff with New Hires	3/2/09	5/22/09
164	7.2 Engage and Execute New Agreements with Vendor Partners	3/2/09	4/24/09
165	7.3 Update Detailed SLDC Project Plan	3/2/09	4/24/09
166	7.4 Begin On-going Project Management Based on new ADE SLDC Project Agenda	3/2/09	4/24/09
167	7.5 Reconvene High Level Steering Group	6/2/09	6/29/09
168	7.6 Maintain Governance and Project Management Process	4/27/09	8/12/11
169	8 Evaluate SLDS Project	3/2/09	2/24/12
170	8.1 Plan and Implement Year 1 Evaluation	3/2/09	2/26/10
171	8.2 Plan and Implement Year 2 Evaluation	3/1/10	2/25/11
172	8.3 Plan and Implement Year 3 Evaluation	2/28/11	2/24/12

APPENDIX A OPTIONAL ATTACHMENTS

- **Letters of Commitment**
 - **Product Literature**
- **Description of Pilot DDDM Initiative**



September 18, 2008

James Boardman
Assistant Commissioner
Arkansas Department of Education
ADE Technology Center
8221 Ranch Blvd
Little Rock, AR 72223

Dear Jim:

Triand is pleased to provide this letter of commitment to continue its participation in the continued development and maintenance of the Longitudinal Data System for the Arkansas public education system.

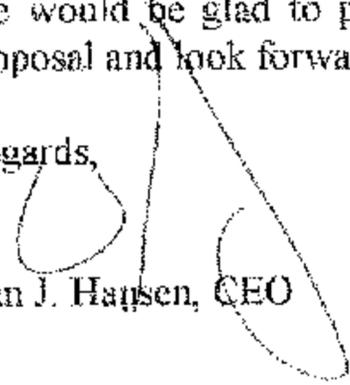
For the past three years Triand has been the prominent provider of the longitudinal data system, data warehousing, and reporting systems for Arkansas public education, providing a seamless connection with student information systems for users in a secure and encrypted technology environment.

In 2007 13,306 users logged 38,143,351 minutes on the system, an average of 47 hours per user.

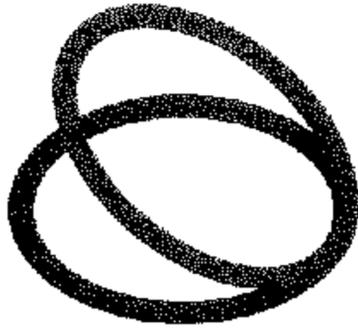
Additionally, Arkansas has entered 1,404,558 target testing assessments into Triand.

Going forward, Triand will work with the Arkansas Department of Education to increase and expand the subscription to include target testing, curriculum, professional development, diverse local assessment systems, and staff person IDs.

We would be glad to provide any additional information that may assist you in your proposal and look forward to working with you.

Regards,

Dan J. Hansen, CEO

(b)(4)



Metis Associates

...making a meaningful difference

90 BROAD STREET, SUITE 1200, NEW YORK, NY 10004 TEL: (212) 425-8833 FAX: (212) 480-2176 WEBSITE: WWW.METISASSOC.COM

September 19, 2008

Mr. James Boardman
Assistant Commissioner
Arkansas Department of Education
4 Capitol Mall
Little Rock, AR 72201

Dear Mr. Boardman:

I would like to take this opportunity to offer the support of Metis Associates for the Arkansas Department of Education's (ADE's) proposal to the US Department of Education's Institute of Education Sciences for a Statewide Longitudinal Data Systems grant, and to express our keen interest in serving as one of ADE's key partners in the proposed project.

As you know, Metis Associates is an independent research and evaluation consulting firm formed in 1977 to provide human services evaluation, research, and design support to public, philanthropic, and private-sector organizations. In particular, Metis has extensive experience in IT strategic and business planning, project management, quality assurance and system assessment, data management and systems development for IT human services and educational initiatives.

Furthermore, as you are aware, we are no strangers to Arkansas or the Arkansas IES supported SLDS initiative. Over the past three years we have been engaged in partnership with you in this work that continues to serve as a model of best practices among IES grantees and non-grantees alike. We trust that the contributions that we made in management consulting, data quality program planning and technical support have helped you in achieving the important level of success you have achieved. We believe that the Metis' evaluation of the Arkansas SLDS effort, which will be completed this fall, will also contribute important information about the status of the initiative and impacts it is having on teaching practices and student outcomes, while helping to further identify critical issues for the next phase of SLDS work.

In addition to the work we have doing with you on the LDS Initiative, as you know Metis recently completed a rigorous statewide implementation and outcomes study of ADE's Environmental and Spatial Technology (EAST) initiative through funding from the US Department of Education's Evaluating State Education Technology program. Finally, Metis has been serving as an independent evaluator for the Little Rock School District for the past six years on several USDOE-funded programs. Metis' involvement in these projects will make it possible to coordinate fieldwork, thereby promoting cost effectiveness by sharing travel expenses among several projects.

Continuing in its role of the last three years, Metis is offering to provide management consulting, data quality assurance and program evaluation services to the ADE, should its proposal to the Institute of Education Sciences be funded. We plan to provide these services to the ADE for a three-year total budget of \$1,198,108.

We wish the Arkansas Department of Education success with its application, and once again, we hope to have the opportunity to collaborate with you on this valuable initiative.

Sincerely,

Alan J. Simon, Ph.D.
Senior Vice President



September 18, 2008

James Boardman
Assistant Commissioner
Arkansas Department of Education
ADE Technology Center
8221 Ranch Blvd.
Little Rock, AR 72223

Dear Jim:

Over the past several years, Decision Ed Group has worked closely with the Arkansas team on the deployment of integrated reporting/analytics and the Longitudinal Data Warehouse. We value and appreciate the opportunity we have had to contribute to the positive impact these projects have achieved for K12 education within the state.

As ADE moves forward into expanding the capabilities for district and state stakeholders, we want to restate our commitment to the project success. The capability of expanded visual interface to longitudinal data will have tremendous impact for the educational process. Our experience in other states with Dashboards and Scorecard deployments has demonstrated the impact that the technology can achieve.

To insure that impact is realized, its important that best practices are utilized and the processes and techniques are internalized within state staff. We are committed to our role of providing technology, process, and knowledge transfer support for this next phase.

Several years ago Cognos selected our organization to lead and manage all SEA/LEA implementations within their professional services organization. Our cumulative experience with the technology and products from Cognos within K12 will provide the leverage to the combined team to maximize potential benefit.

Our team stands ready – to work side by side with Arkansas staff to reach this next level of impact within the state. Once again, thank you for the opportunity to be part of the team in the past. We look forward to being part of the team that moves to the next level of integrated information within the state educational system.

Regards,

A handwritten signature in black ink, appearing to read "Deborah Mason", written in a cursive style.

Deborah Mason
President

878 S Denton Tap Rd, Suite 210, Coppell, Texas 75019

IBM Cognos 8 Business Intelligence Reporting and Dashboards

Meet all your reporting requirements

Reporting requirements have changed dramatically in organizations. Organizations today are much more streamlined and the business world is much more competitive, than how it was yesterday. An organization's business changes rapidly and frequently, and, as a result, everyone must operate at business speed. In order to respond effectively and produce relevant reports, businesses have to engage a large number of people across the organization to create, collaborate on, and deploy reports.

Reporting with IBM Cognos 8 Business Intelligence offers organizations the single, Web-based, complete solution for all components of the reporting lifecycle: collaborative reporting; enterprise-wide report types; reports that can be authored once, and consumed anywhere; and a solution that is adaptable to any data source.

The reporting cycle

As a comprehensive reporting solution, IBM Cognos 8 BI removes the limitations on report development found with different products and interfaces for various report types or users. Cognos reporting reduces IT bottlenecks and allows for a more timely distribution of information; which gives report users and authors the opportunity to respond quickly and effectively.

IBM Cognos 8 BI reporting has these collaborative reporting features to help report authors

- create and modify reports with flexible zone-based layout that adjusts to fit different elements and objects.
- author and work with all report types and expand the base of potential users for each report.
- create and deploy a single report that can be executed across multiple languages and output formats such as HTML, PDF, and Excel.
- build report templates that include standard report objects, queries, and layouts.

Web-based deployment

To work at business speed and ensure that you can access critical information at any given time, you need a Web-based solution. The reach of the Web means users can easily access, administer, and distribute their BI data from anywhere in the organization with continuous availability. IBM Cognos 8 BI uses a zero-footprint, Web-based deployment model. This open, Web standards-based environment is built on the proven Cognos architecture.

Designed for enterprise-level deployment, IBM Cognos 8 BI offers proven scalability to hundreds of thousands of users through an N-tiered, multi-server, multi-threaded architecture. This design provides full failover recovery and dynamic load balancing.

Self-service reporting

Collaborative reporting means that anyone in an organization needs to be able to create reports quickly, to ensure the timely creation and distribution of information, and to contribute to the business from many different perspectives. IBM Cognos 8 BI Reporting allows you to share information faster through the reuse of queries and report objects created by others. You can share responsibility for report creation with other parts of the organization which eases the reporting workload for IT.

The self-service reporting capabilities allow report authors to

- build ad hoc reports on multiple, heterogeneous data sources.
- distribute reports and dashboards widely, with the right content distributed to the right recipient by executing a single report.
- create personal alerts based on custom data conditions to control when and how you receive critical information.
- schedule simultaneous or sequential batch reporting jobs for multiple output formats, destinations, and views.
- distribute reports on-demand or on schedule based on time, calendar, events, or an external trigger.

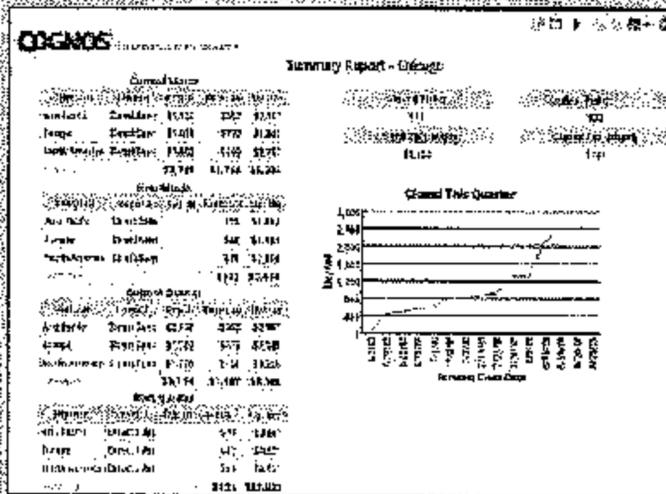
COGNOS
AN IBM[®] COMPANY

- distribute reports through event management reports when important business conditions occur requiring timely action.
- choose viewing preferences for the reporting interface, language, and other geographic sensitivities such as time, currency, and data formats.
- save, schedule, and burst briefing book reports as a single item.

Full range of enterprise reports

The type of report you create depends on who the information is for; what their business needs are; and how you want to best deliver the information. Built on the proven Cognos architecture, IBM Cognos 8 BI Reporting offers a single authoring solution for all types of enterprise reporting for every user in your organization.

Managed Reports



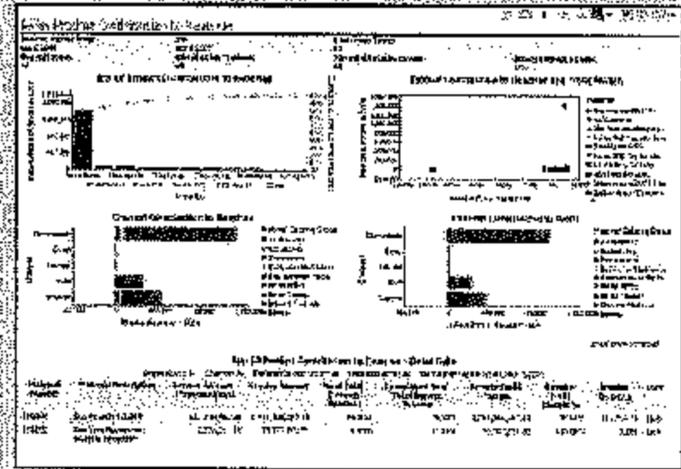
Features:

- One-to-many reporting
- Flexible prompting and bursting
- Scheduled
- Designed for viewing or reading more than interaction
- Ideal for information delivery for wide distribution

Author: Professional authors

Consumer: Stakeholders across the organization

Transactional and Operational Reports



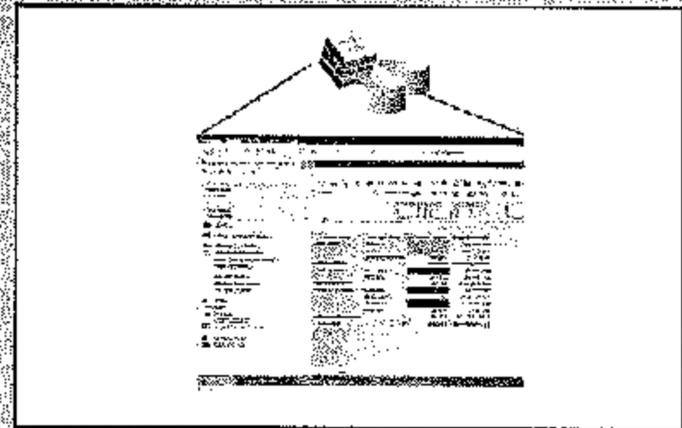
Features:

- Provide a point-in-time picture of performance to a budget or KPI
- Monitor indicators

Author: Professional authors

Consumer: Operations and line managers

Ad-hoc Reports



Features:

- High-level information with the capability to drill down to understand details
- Leverages different data sources
- Flexible
- Designed to get multiple perspectives from the same report

Author: Business users

Consumer: Business users

IBM Cognos 8 Business Intelligence Scorecarding

Communicate strategy, assign ownership, and track performance.

Scorecarding is a proven approach for communicating, measuring, and managing business performance at a tactical, operational, or strategic level. At the tactical level, employees and managers use scorecards to monitor performance against targets for discrete, specific projects. At the strategic level, scorecards are part of a corporate-wide performance management system that executives use to map corporate strategy and communicate it throughout the organization.

You can use Cognos scorecarding to manage the full scope of your business processes:

- Discrete projects at the tactical level or corporate-wide performance management strategies.
- Across business units, operating subsidiaries, or geographic regions.

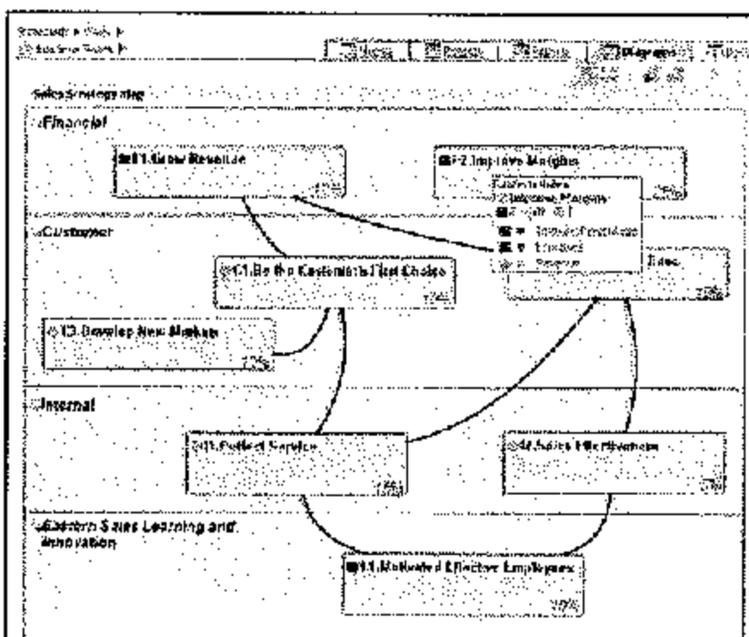
Align decisions and tactics with strategy

Reliable and consistent information

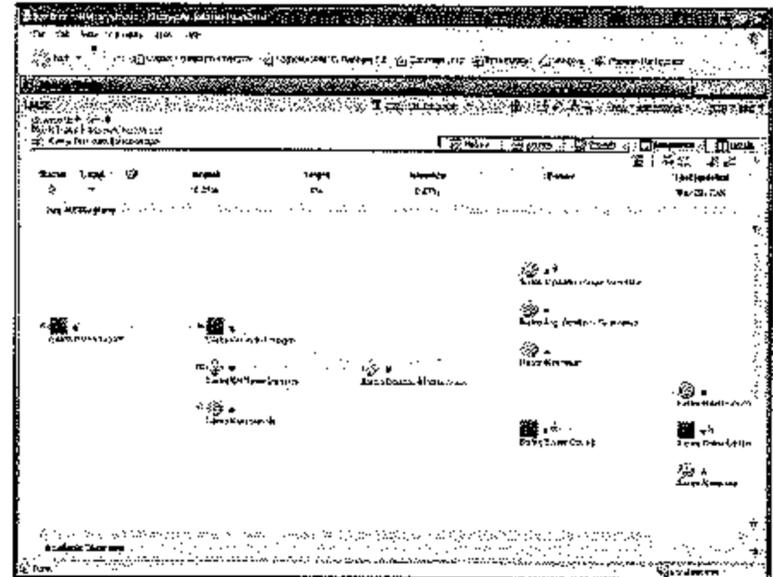
Use scorecarding with IBM Cognos 8 BI to create the single and trusted source of performance data that your business users need to monitor their performance against targets.

Communicate strategy

Use Strategy maps to communicate strategy throughout your organization so employees can understand what the strategy is and align their projects and activities to support it.



Strategy map with associated metrics



Cause-and-effect diagram

Administrators can create metrics, process diagrams, or scorecards once and use them across the organization to ensure everyone is working with the same definitions and to the same targets.

Understand key relationships

Use strategy maps and impact diagrams to understand the cause-and-effect relationships of your key processes and metrics. Administrators can create these maps and diagrams directly within the application using intuitive wizards and design tools. Users can hover over scorecard impact diagrams and instantly have important metric information at their fingertips, without having to look anywhere else.

Build metrics and scorecards easily

Metric can integrate a range of cross-functional data. The intuitive wizards will guide you through the metrics and scorecard design process to add new strategic objectives and supporting metrics. Administrators can build metrics using data from any source, including OLAP and dimensionally aware relational data, ERP and CRM systems, spreadsheets, flat files, and user-entered values.

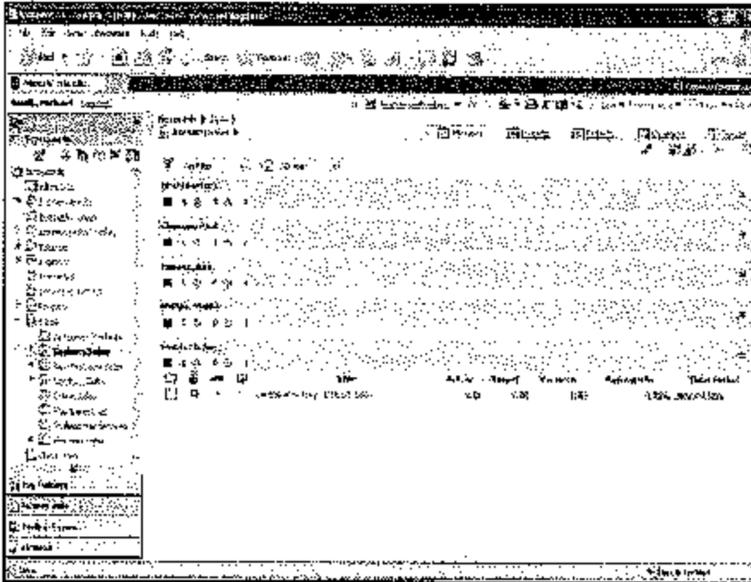
COGNOS
AN IBM COMPANY

Focus on key issues

Flexible viewing options

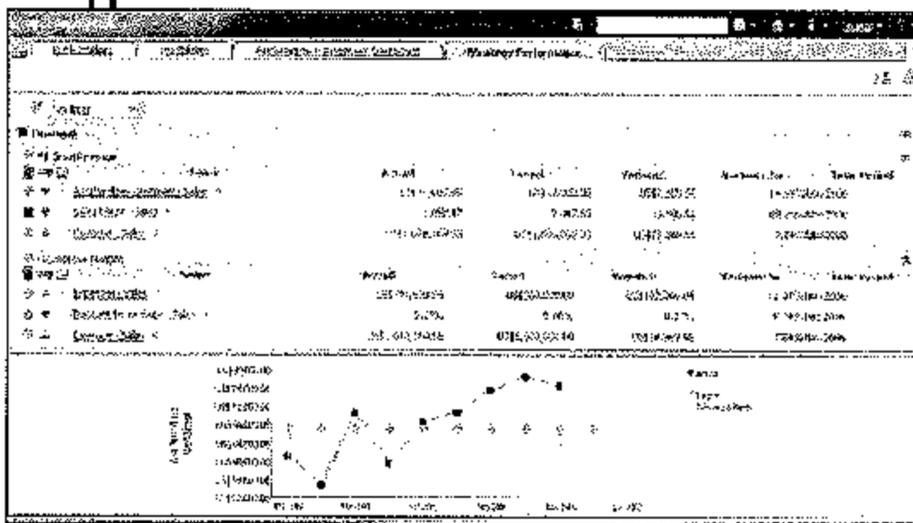
Cognos scorecarding lets users organize and view their scorecards in different ways to ensure they focus their attention on key issues. Users can group metrics and scorecards:

- By status to quickly identify problem areas.
- By owner to understand accountability.
- By strategy map to see how processes and metrics support corporate strategy.



Metrics grouped by owner

IBM Cognos 8 BI lets you create scorecard portlets to make it easier to access and communicate scorecard content across all of your organization, and encourage a broader use of scorecard and business strategy information.



Scorecard portlets viewed in the Cognos Connection portal

Immediate awareness of issues

Users can choose to be notified when a metric changes status. By leveraging the event management capabilities in IBM Cognos 8 BI, you can create and deliver alerts through email to a user's desktop, remote location, or PDA.

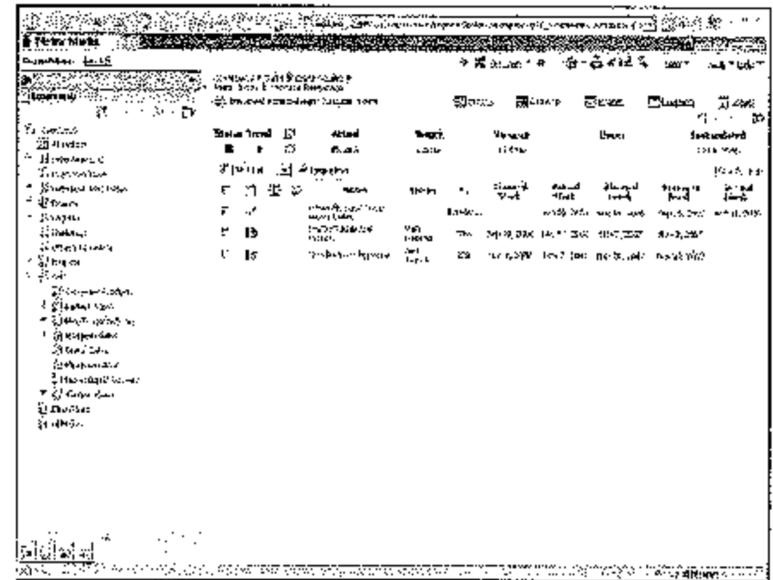
Ensure ownership and accountability

Metric ownership

Every metric in IBM Cognos 8 BI scorecarding has an identified primary owner to ensure everyone understands who is accountable and that performance issues are not overlooked

Manage corrective actions

Use embedded initiative tracking and collaboration capabilities to help manage the actions or projects you undertake when a metric turns red or trends downward.



Advanced Initiative Tracking

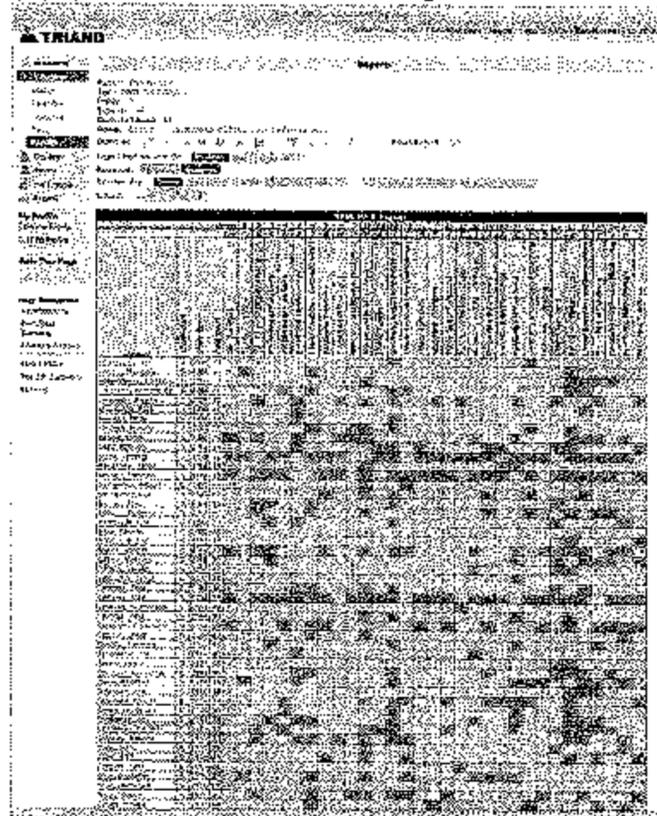


14205 N Mopac Expy
Suite 300
Austin, Texas 78728

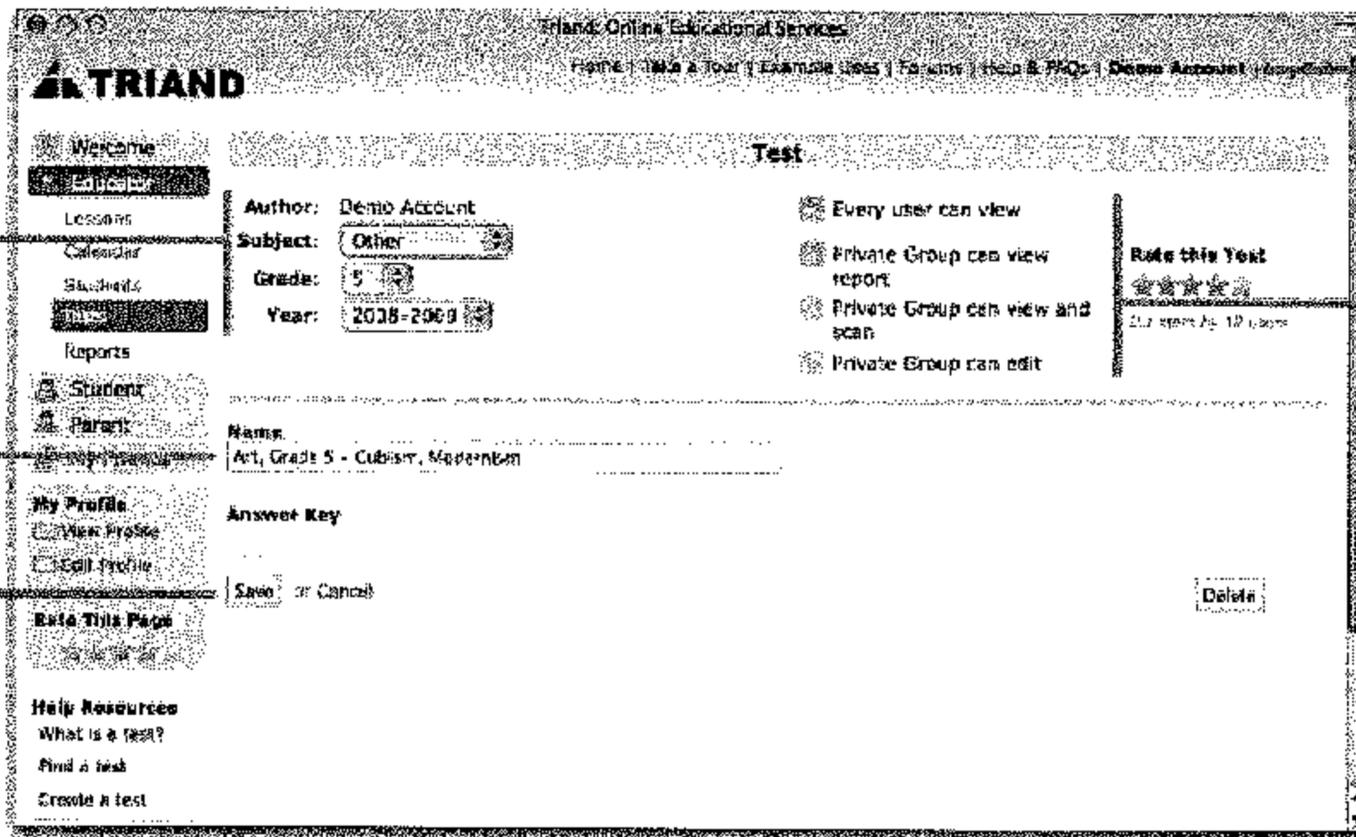
Tel: 512-248-2278
Fax: 512-248-2360
www.triand.com

Target Testing

Highlighted Features: District, Campus, Teacher level reports



Highlighted Features: Tests, Quizzes, Students, Scanning



Describe your new test using these buttons

Check the box next to the way you want to share

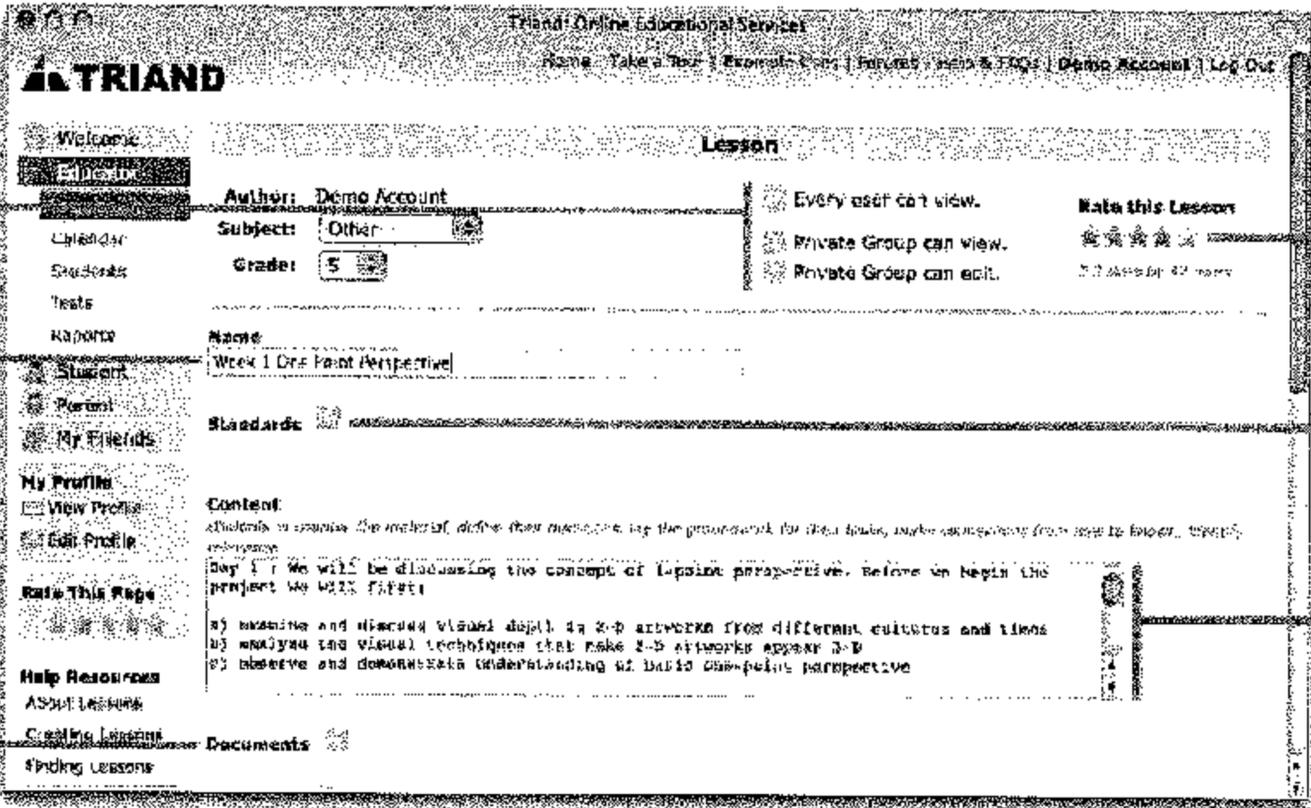
Click Save to save the test and begin testing students

By clicking on your name, you can always get back to the main menu

You decide who has access to tests you've created

Curriculum Management

Highlighted Features: Curriculum, Lesson Plans, State Standards, Ratings



Lesson

Author: Demo Account
Subject: Other
Grade: 5

Name: Week 1 One Point Perspective

Standards: [Searchable list]

Content: Students will examine the material, define their own terms, lay the groundwork for their topics, make connections from one to another, create a reference.

Day 1: We will be discussing the concept of 1-point perspective. Before we begin the project we will first:

- examine and discuss visual depth in 2-D artwork from different eras and times
- analyze the visual techniques that make 2-D artwork appear 3-D
- observe and demonstrate understanding of basic one-point perspective

Permissions: Every user can view, Private Group can view, Private Group can edit.

Rate this Lesson: [Rating stars]

Help Resources: About Lessons, Creating Lessons, Finding Lessons

Control others' access to your lessons.

Name your lesson something easy to find with searchable words included

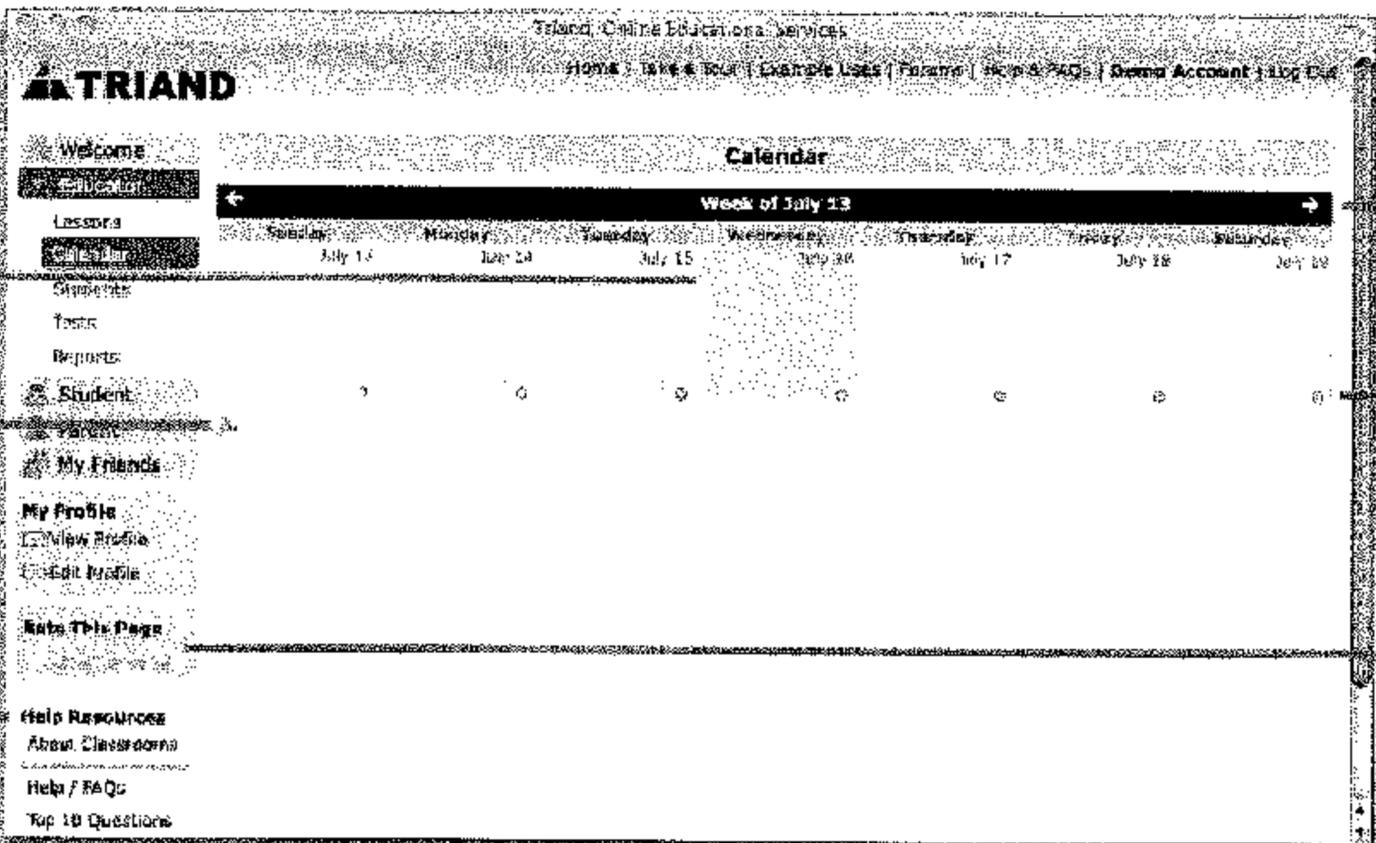
Find and upload documents

Rate this lesson so other people can see which lesson is good or bad

Search for state standards that you can align to your lesson

Enter in the content into this box, separate it as you find it.

Highlighted Features: Calendar, Scheduling, Lesson Plans



Calendar

Week of July 13

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 14	July 15	July 16	July 17	July 18	July 19	July 20

Today's date (July 14) is highlighted.

Click on a date to schedule a Lesson Plan for that day.

Help Resources: About Classrooms, Help / FAQs, Top 10 Questions

Today's date will always be highlighted

Click to create an easy-to-print lesson plan calendar

These are here to help you if you get stuck, click on one to read more

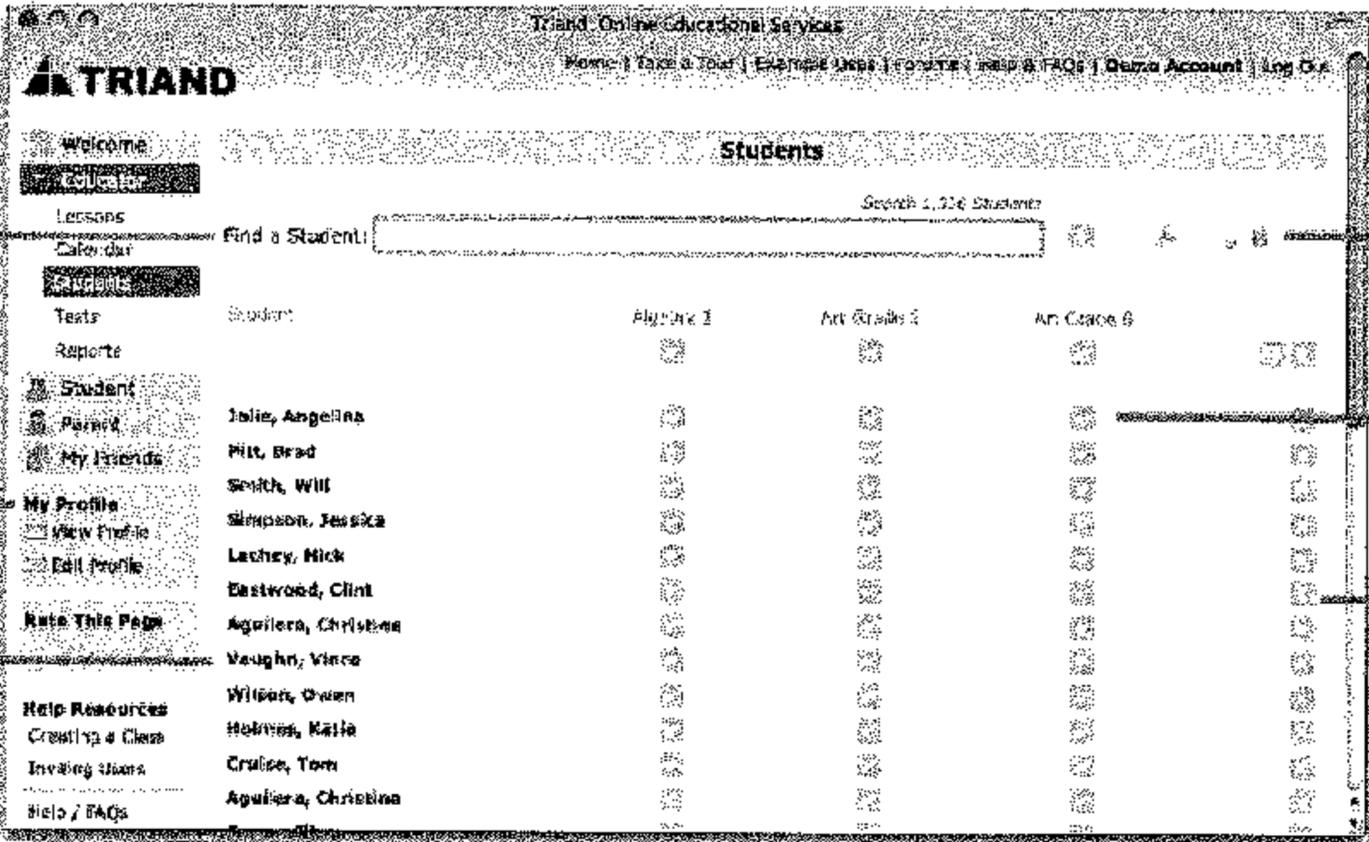
Use the arrows on either side to see the previous or next week

Click to schedule a Lesson Plan for that day

Help us help you, rate the pages and we'll improve the ones that aren't doing so hot

Student Information

Highlighted Features: Students, Scheduling, Classes



Students

Search 1,326 Students

Find a Student:

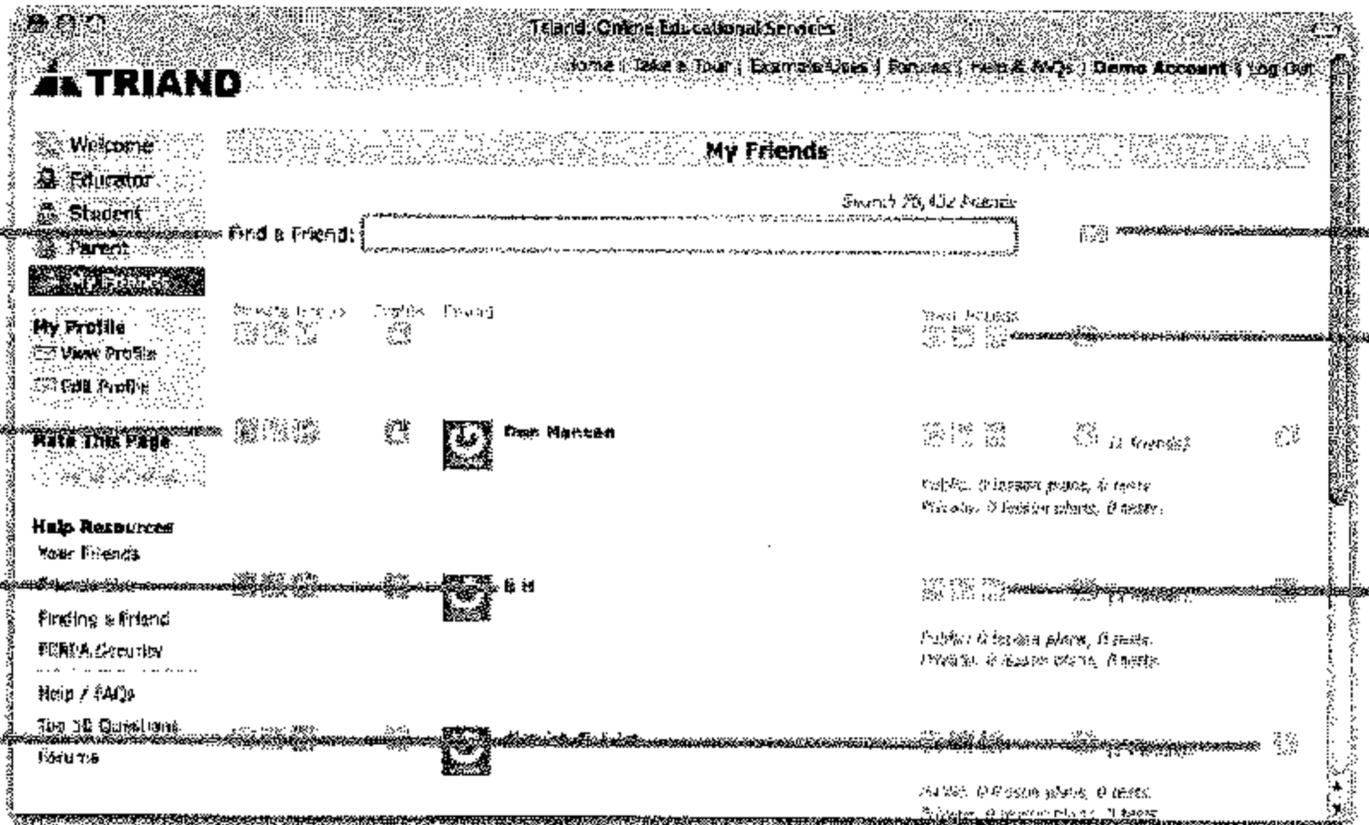
Student	Algebra I	Art (Grades 1-5)	Art (Grade 6)	
Jolie, Angelina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pitt, Brad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smith, Will	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Simpson, Jessica	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lechey, Nick	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eastwood, Clint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aguilera, Christina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vaughn, Vince	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wilson, Owen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holmes, Katie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cruise, Tom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aguilera, Christina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Callouts:

- As you type, results will appear - click on the student you'd like to add
- Use these icons to add a student, print an invite letter, or upload/download the roster
- Click these checks to indicate which class each student is in
- Click here to delete the student
- View and edit your profile from any screen by clicking here
- Click on a student's name to see his/her information

Group Management

Highlighted Features: Groups, Lesson Plans, Tests, Teachers, Resources



My Friends

Search 26,402 Friends

Find a Friend:

Friend	Resources	
Chris Hanson	<input type="checkbox"/> Lesson plans, 0 tests <input type="checkbox"/> Resources, 0 tests	<input type="checkbox"/>
614	<input type="checkbox"/> Lesson plans, 0 tests <input type="checkbox"/> Resources, 0 tests	<input type="checkbox"/>
615	<input type="checkbox"/> Lesson plans, 0 tests <input type="checkbox"/> Resources, 0 tests	<input type="checkbox"/>
616	<input type="checkbox"/> Lesson plans, 0 tests <input type="checkbox"/> Resources, 0 tests	<input type="checkbox"/>

Callouts:

- Search for a friend's first or last name or their location
- Click to send a friend an invite
- Choose which resources you've created you want each friend to see
- Use these icons to filter friends and only see those who meet your criteria
- Click on your friend's name to view their profile
- Request access to your friends' resources by clicking these icons
- Click here to delete this person as your friend

The Surveys of Enacted Curriculum are...

- Data analysis tools for examining the content of local mathematics, science and English Language Arts (K-12) curriculum
- Content maps that enable state and district leaders analyze the content of state standards and state assessments.
- Online, web-based teacher surveys that collect and report data on instructional practices and content that are being taught in classrooms through a process that provides anonymity.
- Data that engage teachers, specialists and administrators in collaborative dialogue about content, practice, impact of professional development, equity and more...
- Data reports that can be disaggregated by class size, amount of professional development, sub-group, achievement level, and more...
- Data reports that are immediately available to survey respondents upon completion.



Tom Stahly, SEC Consultant, facilitates data analysis discussion.

Current uses of the SEC include:

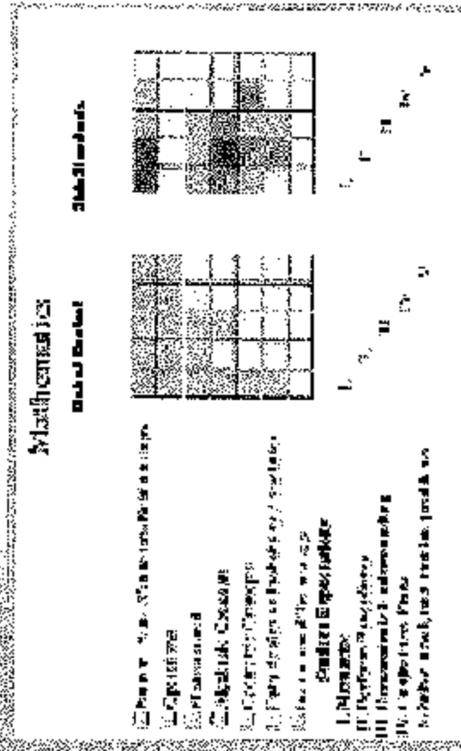
- Curriculum Alignment of the intended curriculum (standards), the enacted curriculum (taught in the classroom) and the assessed curriculum (state assessments).
- Evaluation of Programs and Initiatives (e.g., Reading 1st, Title I, professional development, etc.)
- School Improvement Planning including Causal analysis for low student performance, as well as indicators for monitoring progress toward student learning goals.
- Engagement of teachers and content specialists in high quality professional development.

The research says...

...the alignment index on the SEC report shows a high correlation with impact on student achievement. (Gamoran, Porter, Smithson, and White. "Upgrading High School Mathematics Instruction." 1997.)

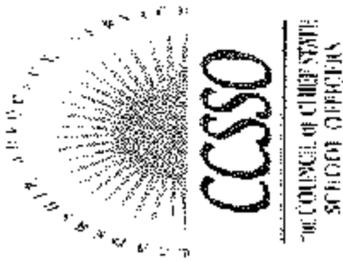
...that teachers engaging in SEC with accompanying long-range professional development, have classrooms that exhibit greater alignment to standards. (Smithson, February 2005.)

For surveys, studies, research findings, presentations, and reports are available at www.SECsurvey.org in the products section.

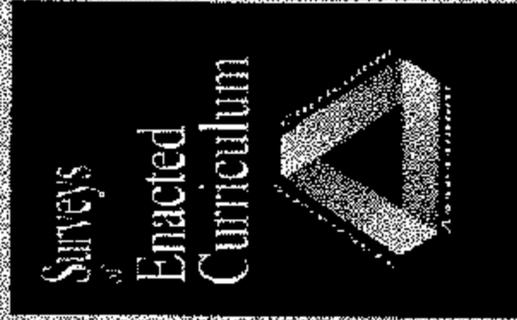


SEC users say...

- "Use of SEC math data has engaged our teachers in dialogue about opportunity to learn to the point where we had to 'untrack' our middle school." *Middle School Teacher*
- "Looking at the charts and graphs allowed us to have conversations, not only what we were teaching, but also about what our expectations of our students were." *High School English Language Arts Teacher*
- "We can't say that the SEC caused our 15% gain in student achievement on the math test, but the conversation we had enabled us to identify and put into place some strategies that did have impact." *SEC State Coordinator*



SURVEYS OF ENACTED CURRICULUM



Data tools for curriculum alignment to enable high student achievement.

Council of Chief State School Officers

Data from the Surveys of Enacted Curriculum assist state, district and school leaders...

- "See" the content that is being taught in the classroom.
- Explore the degree of alignment between what is taught and the state standards.
- Better understand the instructional strategies that are being used in classrooms and examine how they align with best practice and research findings.
- Provide focus for dialogue in professional learning communities.
- Guide professional development efforts and monitor the impact on classroom practice.
- Predict how students will perform on local or state assessments.

	State	District	School
Mathematics	67%	75%	85%
Science	55%	65%	75%
Language Arts	70%	80%	90%

Inspired in 1998, Surveys of Enacted Curriculum have been used by hundreds of schools and districts across the country for nearly a decade.

A variety of workshops are available to help schools or districts begin using the Surveys of Enacted Curriculum.

Level I

At level I, Introduction and Overview Sessions provide information about the survey components, its history, research findings, reporting displays and potential applications for schools or districts. Orientation sessions that prepare teachers to take the survey are also available at this level.

Level II

Workshop Sessions at Level II provide training on how to interpret the data displays and analyze survey data, as well as the alignment between district, school and/or state standards and assessments.



Arie van der Ploeg, Learning Point Associates, assists a state SEC coordinator during a planning session.

Level III

Workshop sessions at this level enable participants to engage school and district teams in dialogue about instructional practices, levels of cognitive demand, beliefs and values, and equity.

Technical Assistance & Support

Technical assistance and support are available from the SEC Collaborating Organizations. For further information and/or to discuss joining the SEC Collaborative, please call Rolf Blank at CCSSO.

SEC Collaborating Organizations

COUNCIL OF CHIEF STATE

SCHOOL OFFICERS
 Rolf Blank, Director
 Education Indicators
 1 Massachusetts Avenue
 Suite 700
 Washington, DC 20001
 Phone: 202-336-7044
 Fax: 202-408-1938
 Email: rolfb@ccsso.org
 Website: <http://www.SECsurvey.org>

**WISCONSIN CENTER FOR
 EDUCATION RESEARCH**

John Smithson, Director
 Measures of the Enacted Curriculum
 1025 W. Johnson St., Suite 453
 Madison, WI 20008
 Phone: 608-263-4354
 Fax: 608-263-6448
 Email: johns@education.wisc.edu
 Website: <http://www.SEConline.org>

TERC

Diana Nunnaley, Director
 Data on the Enacted Curriculum
 2067 Massachusetts Avenue
 Cambridge, MA 02140
 Phone: 617-547-0430
 Fax: 617-349-3535
 Email: diana_nunnaley@terc.edu
 Website: <http://ra.terc.edu/dec/>

LEARNING POINT ASSOCIATES

Lisa Palacios, Sr. Program Associate
 Professional Services
 1120 East Dyer Road, Suite 200
 Naperville, IL 60563
 Phone: 630-649-6601
 Fax: 630-649-6700
 Email: lisa.palacios@learningpt.org
 Website: <http://www.learningpt.org>

Framework for Increasing Data Use Capacity

Arkansas Department of Education (ADE), the Assessment and Accountability Comprehensive Center (AACC), and the Mid-Continent Comprehensive Center

Goals

- To build capacity among administrators, teachers and the staff of Cooperatives in Arkansas to increase the effective use of school-based data for improved student learning
- To provide feedback to ADE about the state data system to maximize use among administrators and teachers in Arkansas
- To use lessons learned from the project to develop guidance for states on state data systems for district and school use

Objectives

- In collaboration with the staff of Cooperatives in two regions of the state, develop a professional development program for administrators and teachers focused on how they can collectively use annual state data and local “target” test data for improved student learning (the delivery of the professional development to be done by Cooperative staff with support from AACC and MC3)
- Assist teachers and administrators to understand the questions that can be answered using these data and the decisions they can inform, and to develop the skills to use them effectively
- Assist teachers and administrators to understand the questions that can be answered using achievement data with demographic and process data
- Develop or refine standard analysis routines and reporting formats to facilitate the use of data, and for reporting data to parents
- Develop on-line materials for the professional development that can be used by staff from the Cooperatives in other regions of the state for increased data use
- Identify improvements to the state data system, including report features, that will assist administrators and teachers to use state and target test data as easily and as effectively as possible
- Use analysis of state and target testing data as leverage points for teachers and administrators to identify additional data that can be used formatively by teachers to plan day-to-day instruction

Key Strategies	Who and When?
<p>Planning meeting: Outline project content, roles, and general time frame for professional development.</p>	<p>Cooperative, ADF, MC3 and AACC, October '08</p>
<p>Cooperative staff meet with pilot districts and schools to introduce project and plan calendar for professional development.</p>	<p>October '08</p>
<p>Collect pre- and post- data for internal evaluation purposes and future work on Cooperative staff, teacher, and administrator knowledge of and practices in data use.</p>	<p>AACC – develop surveys (August/September'08) Administer surveys/analyze results October '08 and May '09</p>
<p>Develop questions for administrators and teachers to use to query the data: general (e.g., “how well are the students in our school doing in math as measured by the aggregated scores on the state assessments?”), interpretive (e.g., “how do these scores compare with last year’s scores for the same students?”), and drill-down (e.g., “what are the strengths and weaknesses at each grade level?”).</p>	<p>AACC and MC3 August-October '08</p>
<p>Design/identify reports that can be generated by the existing system or excel to display data in response to queries.</p>	<p>MC3 August-October '08</p>
<p>Develop common building level protocols (using questions above) for examining reports for state and target test data (first administration), identifying school and grade level strengths and needs, and making action plans.</p>	<p>AACC and MC3 September/October '08</p>
<p>First professional development session with Cooperative staff and schools using reports and protocols.¹</p>	<p>AACC and MC3 November '08</p>
<p>Identify lessons learned and provide feedback on data system to ADE</p>	<p>AACC and MC3 November '08</p>
<p>Based on first professional development, generate questions for querying second administration of target test data (e.g., examining results for areas that were targeted for improvement from last analysis), identify reports and develop protocols.</p>	<p>AACC and MC3 December '08</p>
<p>Second professional development session with Cooperative staff and schools using reports and protocols to focus on analysis results of second administration of target tests.²</p>	<p>AACC and MC3 Mid-late January '09</p>
<p>Identify lessons learned and provide feedback on data system to ADE.</p>	<p>AACC and MC3 February '09</p>
<p>Repeat process of questions/protocol/report development for third administration of target tests.</p>	<p>AACC and MC3 February '09</p>
<p>Third professional development session.</p>	<p>AACC and MC3 Date TBD depending on test administration</p>
<p>Identify lessons learned and provide feedback on data system to ADE.</p>	<p>Date TBD – see row above</p>
<p>Adapt existing data use tools developed by the AACC for online professional development.</p>	<p>AACC November '08 – May '09</p>

¹ Cooperative staff will continue process of planning for improvement based on data analysis after the professional development. Use AACC and MC3 personnel to focus on analysis and interpretation. Possibly meet with Cooperative via video conference to offer interim support for planning

² The actual date will depend on when the second administration of the target test occurs.

APPENDIX B
RESUMES OF KEY PERSONNEL

James Gale Boardman

(b)(6)

(b)(6)

Office: 501-371-5003

- Present** Assistant Commissioner, Division of Research and Technology
Arkansas Department of Education, Little Rock, Arkansas
- 1998-2005** Assistant Director for Information and Technology
Arkansas Department of Education, Little Rock, Arkansas
- 1970-1998** Arkansas Department of Education, Little Rock,
Assistant Director for Planning and Curriculum
Assistant Director of National Migrant Student Record Transfer
System Associate Director of Office of Accountability
Coordinator of Teacher Licensure
Educational Administrative Supervisor
Curriculum Specialist
- 1968-1970** Monette Public Schools, Monette, Missouri
Mathematics Teacher
Physical Education Teacher
Football/Basketball Coach
- 1967-1968** Pulaski County Public Schools
Oak Grove High School
Mathematics Teacher
- Education** M.S.E. University of Central Arkansas, Conway, Arkansas
B.S.E. University of Central Arkansas, Conway, Arkansas
- Additional
Course Work** National Science Foundation Grant on Education Applications of
Computers University of Missouri
University of Texas
University of Miami

Prior to assuming the position of Assistant Commissioner of the Research and Technology Division at the Arkansas Department of Education, I have served as Assistant Director for the Information and Technology Section. For the last five years I have been a member of the Senior Management Team of the agency and have performed various administrative functions including drafting legislation, proposing and presenting rules and regulations for consideration by the State Board of Education, and testifying before multiple legislative committees and sub committees.

I also have had management and supervisory responsibility for six units at the Department whose goals and objectives are centered on technology infrastructure and educational technology. Among the primary roles of these units are the development and implementation of a statewide distance learning program, maintaining and improving the department's technology infrastructure and capacity, providing technology resources and monitoring technology programs in all the school districts within the state.

WORK HISTORY

July, 2008 to date *Assistant Commissioner-Fiscal and Administrative Services,
Arkansas Department of Education*

The Fiscal and Administrative Services Division of the Arkansas Department of Education is responsible for administering the budget, finance and facilities functions of the agency. In addition, it provides fiscal monitoring and support for public school districts. These public school support services include state funding allocations, loans and bonds monitoring and support, accountability and reporting, fiscal distress identification and support, federal grants management, child nutrition services, student management software applications and financial management software applications.

July, 2005-June, 2008 *Director, Arkansas Public School Computer Network,
(APSCN) Arkansas Department of Education*

APSCN's primary mission is to maintain a statewide communications network that provides all Arkansas public school systems and education service cooperatives with electronic access to administrative computing services and provide a system for electronically submitting data to the state. The Director is responsible for the strategic planning, budgeting and oversight of the programming and software application units made up of approximately 45 employees. Making statewide data available to various stakeholders is an important aspect of APSCN's mission.

2000-2005 *Business Manager, Benton School District*

Benton School District is a public school district located in Saline County Arkansas. It has approximately 4500 students and an annual budget of approximately \$34 million. I provided leadership and training during the implementation of several features of the state provided financial software and developed a site-based budgeting process. In addition to directly supervising the accounting department, my responsibility included presentation of financial reports at school board meetings and whenever the need arose. During millage campaigns I presented relative financial information at numerous public forums.

1988-2000 *Business Manager, Texarkana Arkansas School District*

Texarkana Arkansas School District is a public school district with approximately 4400 students and an annual budget of approximately \$41,000,000. As Business Manager, I was responsible for the supervision of all support services, which included: finance, payroll, purchasing, food service, maintenance, transportation and security. This involved working closely with other district administrators as well as personnel policy committees and teacher organizations.

- 1987** *Director of Finance, Crown Leasing Corporation*
 Crown Leasing Corporation was a national chain specializing in renting home appliances. Crown Leasing was a rapidly growing company with over \$27 million per year in revenue. While there, I automated the fixed asset inventory system, developed subsidiary records for the asset and liability accounts, prepared income tax returns for about twenty different state and local taxing jurisdictions, and developed an automated accounting system for Texarkana Athletic Club, a wholly owned subsidiary.
- 1986-1987** *Field Auditor, Arkansas Division of Legislative Audit*
 As field auditor, I was primarily involved with financial audits of public school districts in southwest Arkansas. I also participated in the audits of Howard and Miller counties.
- 1976-1986** *Vice-President Finance, Buchanan Enterprises, Inc.*
 Buchanan Enterprises was a closely held corporation that bottled and distributed Pepsi, Dr. Pepper, 7-Up and Sunkist soft drinks. I was responsible for developing business plans, based on the input from each department, that met the profit objective of a very capital-intensive business. I was instrumental in moving Buchanan Enterprises to a very efficient computer system that provided timely information relative to the key elements of the business. As a result, stockholders' equity increased 671% from 1976 to 1985 and sales increased from \$4 million to \$21 million.
- 1974-1976** *Staff Accountant, Grier, Reeves and Lawley, CPA's*
 As a staff accountant for a large local accounting firm in Texarkana, I gained well-rounded experience in tax preparation and auditing. Clients included banks, savings and loans, wholesale grocers, construction contractors, hospitals, clinics and various retail and manufacturing entities.

EDUCATION

- 1972-1974** Bachelor of Science in Business Administration(major in accounting)
 Henderson State College, Arkadelphia Arkansas
 Member Alpha Chi-National Honorary Society
 Cumulative grade-point average of 3.3 on scale of 4.0
- 1970-1972** Texarkana Community College, Texarkana, Texas
 President's List

Professional Organizations

- Arkansas Association of School Business Officials (President 2008-09)
 Arkansas Society of Certified Public Accountants
 Arkansas Association of Educational Administrators (Board 2008-09)

(b)(6)

KATHLEEN CRAIN

Career Objective To use and continue to develop my computer and accounting skills and technical and managerial experience with an organization in a challenging environment. To gain additional business knowledge, experience, and judgment necessary for advancement.

Education 1991 University of AR at Monticello, Monticello, AR

- **BS, Accounting**
- **CPA**

Experience

1995-Present AR Public School Computer Network Little Rock, AR

Director Financial Applications/Support

- Supervise nine field support in the training, setup, transition, implementation and support of a mandated state-wide Accounting software. One and one-half years as field support followed by promotion to supervisor of the financial division. Instruct software trainers, write training guides and user documentation procedures, liaison to Pentamation software supplier for updates, problems, etc., assist troubled districts with out-of-balance situations, procedural and auditing problems as well as provide double entry accounting lessons, and assist field support with overload schedules. Project Manager for major software conversion for 281 databases Nov. 2004-May 2005. Present workshops at various organizational meetings such as Arkansas Association of School Business Officials. Liaison to Legislative Audit to provide documentation and information for districts as necessary. Supervise four help desk personnel.

1992-1995 Union Camp Corporation Monticello, AR

General Accountant

- Supervised three accounting personnel; payroll/production reporting, accounts payable, and accounts receivable clerks. Responsible for month-end closing journals; cash receipts, payroll distribution, labor distribution, labor accrual, labor accrual reversal, employer taxes, corporate office charges, sales tax, sales, interplant charges, material usage, waste, inventory change, overhead and freight closure, and closing journal to corporate office. Supervised monthly physical inventory. Prepared monthly inventory data. Updated computer resin costs on a timely basis. Assisted Controller in preparing monthly financial statements.

1991-1992 Jefferson County Pine Bluff, AR
Accounting Operations Manager

- Responsible for all accounting operations for Jefferson County; 1992 Budget - \$7,763,402.00. Supervised two full-time accounting graduate employees and two part-time employees. Took minutes at the Quorum Court meetings; number, filed and updated budget with all supplemental ordinances passed. Prepared monthly payroll for 250 employees grossing approximately 264,000, insurance enrollment, deductions, garnishments, changes, etc. Accounts payable for approximately twenty fund accounts. Federal grant for Drug Prosecution Fund. Proficient on Lotus and Word Perfect. Reconciled funds monthly with County Treasurer's Office. Prepared quarterly fuel excise tax reports, sales tax reports, employment security division reports, FICA, Federal and State Withholding deposits and reports. Reconciled bank statements. Reported and filed workers' compensation injuries and claims.

1991-1991 CONAM Construction Company, Prudhoe Bay, AK
Assistant Office Manager

- Time limited Construction Project. Prepared time sheets, entered time on computer, prepared payroll reports. Assisted office manager in preparing Internal Cost Reports, Client Cost Reports, Progress Reports, Travel Arrangements, Equipment Usage, and Billing and Invoicing. Expedited mail, reports, etc.

1987-1990 University of AR at Monticello Monticello, AR
Bookkeeper & Secretary II/Academic Affairs

Responsibilities to the Vice Chancellor for Academic Affairs:
Dr. A. E. Etheridge.

- Maintained Title III Budget approving grants to the extent of funds. Provided approved minigrant purchase order & travel instructions to faculty. Composed faculty development and routine graduate education correspondence. Reviewed faculty travel authorizations and reimbursements for accuracy. Prepared purchase orders and budget transfers to Academic Affairs. Maintained Academic Affairs books to reflect all purchases and charges. Reconciled Academic Affairs Books with Office of Finance & Administration. Prepared monthly financial statements. Prepared and mailed routine statistical reports. Compiled and maintained faculty statistics. Calculated summer salaries and prepared faculty appointments. Registered graduate students and collected tuition. Assisted with the compilation of news letter. Designed and prepared flyers and brochures-desk top publishing.

1979-1987 Star City High School Star City, AR

English Aide & Secretary

- English Aide, Grades 9-11. Assisted under achievers in acquiring basic skills. Assumed teaching responsibilities in the absence of regular instructor. Maintained attendance records and prepared quarterly reports. Recorded grades and calculated grade points for grades 9-12. Typed correspondence and reports. Sponsored junior and senior high cheerleaders. Managed football concessions stand; purchasing, staffing, and supervising.

1972-1974 First Baptist Church Ashdown, AR

Secretary & Church Clerk

- Took minutes at monthly business meetings, maintained contribution records and church roll.

1971-1972 Lenti & Smith, CPA's Osceola, AR

Tax Season Clerk

- Typed tax audits and reports, income tax returns, and assisted bookkeeper.

1965-1971 AR Baptist Home for Children Monticello, AR

- **Secretary, Bookkeeper, Office Manager Secretary** to superintendent and assistant superintendent. Took minutes at quarterly board meetings in Little Rock. Promoted to office manager and bookkeeper. Responsible for petty cash. Typed case studies for social worker. Purchasing agent for campus supplies. Prepared payroll and accounts payable for local CPA.

REFERENCES

- Furnished upon request.

W. Cody Decker

(b)(6)

PROFILE

Skilled information technology professional with masters of science in information quality. Strong background in system and network administration and project management. Effective communicator and experienced trainer with history of managing projects from conception through completion.

EDUCATION

Master of Science, Information Quality <i>University of Arkansas at Little Rock</i> Master's paper: <i>The Implementation of Quantitative Information Quality Techniques to Improve Arkansas' Learning Management System.</i>	2007
Bachelor of Science, Information Science <i>University of Arkansas at Little Rock</i> Specializations in network security and data mining; magna cum laude graduate.	2006
Cisco Internetworking Academy <i>Rich Mountain Community College</i>	2002

CERTIFICATIONS

- Cisco Certified Network Associate (CCNA)
- Computer Technology Industry Association A+
- Computer Technology Industry Association I-Net+
- Computer Technology Industry Association Network+
- Electronics Technicians Association Certified Service Technician (CST)
- Electronics Technicians Association Certified Web Specialist (CWS)
- Microsoft Certified Professional (MCP)
- Microsoft Certified Systems Administrator (MCSA)
- Microsoft Certified Systems Engineer (MCSE)
- Microsoft Certified Technology Specialist (MCTS)

EXPERIENCE

Network Project Manager <i>Department of Education, Little Rock, Arkansas</i> Managed network and system infrastructure migration from Microsoft Windows NT 4.0 to Microsoft Windows Server Active Directory 2003.	October 2006-present
---	----------------------

- Total data quality management approach for successful completion of network projects.
- Managed projects from conception through development, planning, budgeting, and scheduling; presented program accomplishments at executive meetings.
- Automated network tasks through improved scripting; reduced resources required to implement system-wide updates; lead effort to improve user support resources and created numerous self-help resources for end users. Provided numerous on-site and web-based trainings to stakeholders for student information system.
- Proposed data quality improvement techniques to significantly reduce operating expenses by profiling, standardizing, cleansing and clustering data sets.
- Various positions at company include Network Project Manager (2007) and Data Engineer (2006).

Technical Support Manager June 2002-October 2006
Environmental and Spatial Technology, Inc. Little Rock, Arkansas
Managed technical support team to support servers, clients, printers and applications for over 200 national locations.

- Provided tiered technical support for Microsoft server and client operating systems, computer-aided design, global positioning and information system installation support, and network printer and plotter support.
- Provided network system administration training to small and mid-size (30+) audiences.
- Provided firewall, router and network diagnostic support for internal and external operations.
- Lead implementation of technical support ticketing system; normalized organizational databases to improve performance and efficiency and provided advanced database query design.
- Various positions include Support Technician (2002), Lead Support Technician (2004) and Technical Support Manager (2006).

AWARDS & AFFILIATIONS

National EAST Alumni, Chairman	2006-2008
Flake-Wilkerson Information Quality Scholarship	2006, 2007
UALR MSIQ Outstanding Achievement Award	2007
Association for Computing Machinery, Member	2006-present
Institute of Electrical and Electronics Engineers, Member	2006-present
UALR Distinguished Undergraduate Research Grant Recipient	2006
UALR Outstanding Information Science Senior	2006
Little Rock Rotary Club Charles E. Hathaway Scholarship	2005
International Golden Key Honor Society, Member	2003-2006
UALR EASTLAB Scholarship	2002-2006
Central Church of Christ, Member	2002-present

REFERENCES AVAILABLE UPON REQUEST

Neal Gibson

(b)(6)

neal.gibson@arkansas.gov

Education	B.A. History, University of Arkansas	May 1988
	M.A. History, University of Arkansas	May 2004
	M.S. Information Quality University of Arkansas Little Rock	December 2007
Career History	Arkansas Department of Education	June 2006-current
	<i>Project Manager, Arkansas Longitudinal Data System</i>	
	<ul style="list-style-type: none">• Coordinator for two different data systems utilized state-wide by all public schools• Collaborated with other states and the federal government with data issues• Worked with educational researchers from across the country• Coordinated efforts with other educational agencies with various projects utilizing data	
	Yellville-Summit School District	June 1999-May 2006
	<i>Teacher/Technology Coordinator</i>	
	<ul style="list-style-type: none">• Technology Coordinator• Classroom Teacher for EAST Lab, Cisco Networking, Data Modeling and SQL, Java Programming, AP Computer Science, AP American History• Developed the Arkansas Learning Management System, an open source online assessment and content delivery program• TICAL (Technology Information Center for Administrative Leadership) cadre member	
Arkansas School for Mathematics and Sciences	June 1994-May 1999	
<i>Teacher/Network Administrator</i>		
<ul style="list-style-type: none">• Network Administrator• Classroom Teacher for World Studies, American Studies, AP American History, Writing Lab, Computers and Animation, and Networking• Developed the Arkansas Memory Project• Received fellowship from the Library of Congress• Received fellowship from the New Media Classroom		
Greenbriar High School	June 1991-May 1994	
<i>Teacher</i>		
<ul style="list-style-type: none">• Classroom Teacher for World History, American History, and Photography		
US Navy	October 1979 – October 1984	
<ul style="list-style-type: none">• PH2, VP-19 Reconnaissance Squadron		

(b)(6)

Danita Hvrkas

501-682-5199 Office

(b)(6)

Special Knowledge:

- Business Administration
- Financial Accounting
- Administrative/organizational principles, procedures and practices
- Information Systems Technology
- Computer Technology

Skills:

- Management, Organizational, Communication, and Problem Solving Skills
- Excellent Interpersonal skills
- Excellent computer skills, including web design
- Skilled in the use of Microsoft Word, MSEXcel, MSPowerPoint, MSAccess, MSPublisher, MSProject, FrontPage, Pentamation FinancePlus, Pentamation Student Open Series and Plus, Cognos Reportnet, Visio, and various other software.

Specialized Training

- Budget Planning, Microsoft Office Suite, and have attended numerous other workshops on software products and Internet usage.
- Fund Accounting
- Quality Team Management
- AASIS training – Human Resources, Financial, Purchasing, Payroll

Experience:

4/6/98 to Present - Arkansas Department of Education - (501)682-4887

Position: APSCN Internal Operations Coordinator

- Manage and supervise administrative support staff
- Administer all phases of organizational activities related to business and personnel management
- Serve on the APSCN Steering Committee
- Foster effective communications throughout APSCN departments, Financial, Student and State Reporting; the ADE, and the Department of Information Systems (DIS)
- Plan for and assist in administering APSCN special projects such as software conversions, server upgrades, etc.
- Assess budget needs and monitor APSCN expenditures
- Research and analyze reports, data, documents as needed
- Edit and make recommendations for APSCN training documents and for State Reporting Cycle documentation
- Manage the APSCN web site
- Establish and implement office procedures and policies
- Assist in creating and maintaining the APSCN Standards of Operation (SOP)

- Maintain APSCN personnel files, interview prospective employees, recommend for hire
- Compose effective correspondence with vendors, customers, staff and related agencies.

6/97 to 4/6/98: Arkansas Public School Computer Network (APSCN), - Robert Friedman, Director, (501)682-4887

Position: Office Manager

- Manage and supervise administrative support staff
- Administer all phases of organizational activities related to business and personnel management
- Manage and maintain multiple bank accounts and investments of funds
- Manage and supervise all phases of financial accounting
- Prepare and submit all Federal and State required reporting
- Analyze accounting reports and create monthly financial statements for multiple funds
- Report to the Board on the financial status of the organization
- Establish and implement office procedures and policies
- Maintain personnel files and administer employee benefit plans
- Compose effective correspondence with vendors, customers, staff and related agencies.
- Assist in assessing budget needs and submit annual budgets for Board approval

9/83 to 6/30/97: IMPAC Learning Systems, Inc. (ILS) - Ray Scott, Administrator, (501) 324-9652

Position: Office Manager

- Supervise administrative support staff
- Manage and supervise all office functions: personnel, payroll, budgets, record keeping, and accounting
- Maintain multiple bank accounts and investments of funds
- Approve purchase orders and personnel leave requests
- Assist in planning and coordinating the implementation of IMPAC computer projects
- Coordinate the purchase and delivery of computer and technology equipment for IMPAC projects
- Negotiate hardware and software maintenance contracts with school districts
- Negotiate hardware and software licensing agreements and/or contracts with vendors
- Assist school districts in the procurement of computer and related technology equipment
- Establish and implement office procedures and policies
- Compose correspondence, create and analyze financial reports
- Prepare financial reports for Board presentations
- Initiate hardware and software bid requests, assist in analyzing and selecting vendors from the bid responses
- Assess budget needs and submit annual budgets for Board approval

10/82 - 8/83 Owens-Illinois, Inc., PO BOX 30, Tracy, CA 95376, (209)835-5701

Position: Executive Assistant to the Plant Manager

An executive assistant position to the plant manager in a glass container manufacturing corporation employing over 700 employees.

11/80 - 10/82 Tracy School District, 315 East 11th Street, Tracy, CA 95376, (209)835-8000

Position: Special Services Administrative Assistant II

- Managed the Special Services Office
- Managed, supervised and evaluated performance of support staff
- Composed correspondence, approved purchases,
- Set-up and monitored confidential student testing files
- Supervised the preparation of confidential psychological reports on students

3/80 - 11/80 Tracy School District, 315 East 11th Street, Tracy, CA 95376, (209)835-8000

Position: Classified Personnel Administrator

- Administered all facets of soliciting, hiring, firing and maintaining classified (non-certified) staff for the Tracy School District

11/74 - 12/78 Chemetron Corporation, Santa Fe Springs, CA

Position: Executive Assistant to the Western Regional Sales Manager

- Managed the regional sales office for this supplier of pigment to ink and paint companies.

Education:

College Business Admin Christian Life College, Stockton, CA

Business College Programming. MTI Business College, Stockton, CA

Continuing Education/Workshops/Seminars

- Performance Evaluation, Grievance Prevention and Handling, Computers and Data Processing, Time Management, The Human Element (T.H.E.) Course, Stress Management, Business Financial Management, Coaching and Teambuilding Skills for Managers and Supervisors and Building Budgeting Skills

Personal information: Married, good health

Personal references available upon request

(b)(6)

Carmen Jordan

Objective To use my experience as a manager in a corporate environment

Employment 04/1998 - present Arkansas Dept of Education/APSCN Little Rock, AR

Student Applications Manager

- Supervise 16 employees who support school districts with day-to-day software support
- Oversee statewide Student Administrative Reporting software (Sungard Pentamation Software) support operations which includes new software release testing and testing bug fixes and enhancements
- Troubleshoots software problems for end-users
- Write SQL statements to correct data errors
- Correspond with software vendor to ensure software is working efficiently and effectively

07/1995-04/1998 AR Public School Computer Network Little Rock, AR

Applications Trainer

- Wrote training documentation using Microsoft Word
- Trained school district personnel across the state to use student administrative software (software used: SunGard Pentamation)
- Tested software bug fixes and software updates

11/1994-07/1995 AR Public School Computer Network Little Rock, AR

Student Applications Help Desk Support

- Test software releases in a Unix environment before distribution throughout the state
- Maintained software database template used by the school districts
- Helped school district personnel to resolve software problems

08/1994-09/1995 United States Postal Service Sherwood, AR

Data Conversion Operator

- Used data conversion machine to key 400-500 pieces of mail per day

10/1989-11/1994 Pulaski County Special School District Little Rock, AR

Counselor's Secretary (Fuller Junior High School)

- Used PC to input school's master schedule and student schedules
- Maintained student cumulative records folders

- Created ad hoc
- Typed correspondence for school principal
- Used PC to input student's marks and daily attendance
- Used NCS optical scanner to scan attendance daily
- Setup PC to run nightly backups
- Liaison between the counseling staff and the students

Education 05/04-07/05 Kennedy-Western University Agoura Hills, CA
Bachelor of Science Management & Leadership (07/2005)

08/1985 - 05/1986 University of ARK Monticello Monticello, AR

08/1980 - 05/1982 University of ARK Monticello Monticello, AR
Major: Office Administration

References

(b)(6)

Volunteer experience

Volunteer with an organization, Teen Promise, Inc. based in Little Rock. I have volunteered for the organization for four years. The last three years I have worked as administrator of the Miss Teen Promise Female Preparatory Workshops (see <http://www.missteenpromise.com>). As administrator I'm in charge of overseeing the preparation of the workshops e.g. collecting fees, contacting workshop presenters and collaborating with the organization's executive director.

Knox, Clara Denise

(b)(6)

(b)(6)

OBJECTIVE

Find a rewarding and challenging long-term programming/networking career with a growing company, where I have growth potential, while proving my worth to the organization and working in a team environment.

TECHNICAL SKILLS

Network	CISCO: install, configure, and operate LAN, WAN. Including but not limited to use of these protocols: IP, IGRP, IP RIP, VLANs, RIP, Ethernet, Access Lists.
Languages	SQL, VISUAL BASIC 6.0, 4GL, C-Survent
Software	MS Word, Excel, PowerPoint, Internet, Outlook, WordPerfect, Cognos Report Writer
Database Systems	INFORMIX (SQL), MS Access
Operating Systems	Windows XP, Windows 95/98, Unix AIX and MS DOS

WORK EXPERIENCE

Senior Systems Programmer

From 06/97 To Current

Employer's name and address: Arkansas Department of Education
(Subdivision: Arkansas Public School Computer Network -APSCN) 101 East Capitol, Suite 101, Little Rock, AR 72202

Duties and accomplishments: Supervises programming staff. Designs, develops, test, installs and maintains the State Information System software and other operating systems and program applications, and provides technical assistance as needed. Diagnoses, researches, and resolves technical and operation problems. Analyzes requirements, evaluates systems and programs and modifies as needed to enhance system or program efficiency. Works on special projects related to the APSCN Pentamation software or ADE program requirements. Train Statewide Information System Software and Manage and operate the SIS Customer Service Helpdesk.

Spec Writer II

From 3/93 To 6/97

Employer's name and address: Maritz Marketing Research, Inc., 1375 North Highway Drive/Fenton, Saint Louis County, Missouri 63099 (Headquarters, Little Rock office closed)

Duties and accomplishments: Codes, compiles, test and implement programs. Maintain existing programs. Process collected data into statistical reports. Perform system backups. Provide technical support for personnel and staff.

EDUCATION

Pulaski Technical College, North Little Rock, AR 72032
Certificate: Working on CCNA Certification
Period: 01/2004 - Current

University of Central Arkansas, Conway, AR 72032
Majors: Mathematics, **Minor:** Computer Science
Degree: Bachelors of Science **Year received:** 1992

OTHER QUALIFICATIONS

- Certificate of Completion in INFORMIX 4GL
- Certificate of Completion in Visual Basic 6.0
- Certificate of Completion in Intro to Java Script
- Certificate of Completion in HTML 4.0: Introduction

Nancy Kay Tepera

(b)(6)

EXPERIENCE

July 2007 **Arkansas Department of Education**
To Present 101 East Capitol, Little Rock, AR

Education Program Administrator

Work for Division of Research and Technology in the Office of Data Quality to develop curriculum and conduct training programs across the state of Arkansas for technology based data applications (Triand). Analyzed state-wide educational reporting data and developed strategies for improving integrity of state data system. Coordinated efforts of educational institutions in the use of technology to comply with Arkansas Department of Education reporting standards. Presented at state-wide technology conference.

2001-2007 **Monticello School District**
935 Scogin Drive, Monticello, AR

Technology Coordinator/APSCN System Administrator

Responsible for state reporting of APSCN (Arkansas Public School Computer Network), registration and transcript processes, scheduling, state standards requirements, course number accuracy, scanning and uploading student grades, cycle reports, district training of APSCN software, and troubleshooting issues that arise. Worked with the federal programs coordinator on the Arkansas Consolidated School Improvement Plans (ACSIP) for K-12 schools. Responsible for technology purchases while complying with state purchasing regulations including the purchase of all EAST lab equipment and software licensure. Responsible for implementation and maintenance of Excelsior Gradebook software for secondary schools. Responsible for E-Rate application filing, technology plan development and implementation, and assisting district-level administrative personnel as needed. Five-year cadre member for TICAL (Technology Information Center for Administrative Leadership).

1997
to
2001 **Pearsall High School**
Pearsall, Texas 78061

Business Computer Information Systems Instructor

Responsible for teaching computer applications to high school students using a Windows platform. Developed curriculum and conducted training for Microsoft Office, Windows, E-mail, and Internet usage to the faculty and staff of Pearsall ISD, as well as the local community. Computer troubleshooting. Maintenance

and support of classroom hardware and software as necessary and individual technical assistance to staff as needed. Assisted in writing a successful Telecommunications Infrastructure Fund (TIF) Grant.

1989
to
1991

Pearsall High School
Pearsall, Texas 78061

Business Computer Applications/Business Education Instruction
Computer Applications, Accounting, Business Law, Recordkeeping and Typing instructor. Sponsored the U.I.L. Accounting team and served on the District Budget Committee, Parent-School Relations, and Campus Education and Improvement Committee.

1988
1987
1985-86
1984
1983-84

Robstown I.S.D. Continuing Education Program, Robstown, Texas
Bee County College, Texas A & I University, Kingsville, Texas
International Business College, El Paso, Texas
South West Texas Junior College, Uvalde, Texas
Alma High School, Alma, Arkansas

Taught Computer Applications, Word Processing, Secretarial Procedures, Business Math, Record Management, Marketing, Typing, Office Machines, and Shorthand.

EDUCATION

2004 to
2008

Master of Educational Leadership, University of Arkansas at Monticello
Degree Completion, May 2008
Master of Education, University of Arkansas at Monticello
Major: Education with Leadership and Technology

1979-1983

Bachelor of Science, Arkansas Tech University
Major: Business Education
Associate of Science, Arkansas Tech University
Major: Secretarial Science

COMMUNITY INVOLVEMENT

University of Arkansas at Monticello, Graduate Council member
Junior Auxiliary of Monticello, Served as committee chair
Director, Vacation Bible School, First United Methodist Church
Director, LOGOS children's program, First United Methodist Church
Children's Council Member, First United Methodist Church
Vocational Committee, Technology Committee, Campus Education and Improvement Committee, Attendance Committee, Pearsall High School

REFERENCES

(b)(6)

Metis Associates Resumes

Alan J. Simon, Ph.D.

Senior Vice President

Summary Dr. Simon brings over forty years of outstanding service to the field of education evaluation. During the time since he completed his doctoral studies that were supported by Title IV of ESEA, he has directed a rich array of policy and research studies and program assessments that employed both qualitative and quantitative features including the use of experimental and quasi-experimental designs. Dr. Simon serves on Metis' Design Consulting Committee and provides senior consultation of several large-scale (e.g., state- and city-wide) projects. He has designed, executed and directed many data management-related projects that were used to inform broad policy decisions. Dr. Simon is a strong proponent of data-driven decision making and has contributed to this process throughout his professional life through his teaching, writing, research and evaluation and presentations at major conferences.

Skills Skilled manager of consultative and research services in the social sciences, especially education. Proficient at qualitative and quantitative research design, application of sound psychometric practices and the management of data to inform educational administrators, teachers, policy makers and the lay public. Expert at the presentation of research outcomes in a non-technical manner. Co-author of a textbook used in graduate level research courses (Merrill/Prentice Hall, 1992; 1997; 2002; and 2006).

Education Ph.D., Hofstra University, educational psychology, research methodology
M.A. Teachers College - Columbia University, curriculum & teaching
B.A. Queens College, C.U.N.Y., elementary education
Permanent Certification - Director of Research, NYSED

Experience **Project Support and Corporate Leadership**

For over forty years, managed large-scale programmatic and policy-related research, evaluation and technical assistance projects for a wide array of education clients including state and local agencies. As an officer of Metis for the last sixteen years, helped to increase and diversify its client base and to provide leadership to its staff.

- Senior Technical Advisor to the evaluation North Carolina's High Priority (HP) Schools Initiative (authorized and funded by the North Carolina General Assembly)
- Senior Technical Advisor or Project Director for the evaluation of Magnet Schools Assistance Projects since the program's inception
- Senior Liaison with the Bill & Melinda Gates Foundation
- Senior advisor or Project Director for the evaluation of five National Science Foundation-supported projects
- Senior advisor for a team of Metis researchers evaluating local-, state- and federally-funded initiatives for the Cleveland Municipal School District, the Chicago Public Schools and the Arkansas Department of Education
- Chair of Metis' Institutional Review Board (IRB) and corporate Officer on

internal Design Consulting Committee (DCC). The IRB (#IRB0003465) is certified by the Office of Human Research Protections (OHRP) of the US Department of Health and Human Services. The DCC provides quality control regarding the appropriateness of evaluation methods and measures selected or developed for research and evaluation projects undertaken by Metis.

Program Evaluation

Designed, implemented, directed and provided technical assistance for the evaluation of federal, state and local educational initiatives. Evaluations utilized both qualitative and quantitative approaches and were focused on implementation and outcomes concerns.

- Principal Investigator for the evaluation of the IES-supported Longitudinal Data System for the Arkansas Department of Education
- Principal Investigator for a scientifically-based implementation and outcome study of Project EAST – Arkansas’ state-wide technology curriculum - funded by the USDOR under its Evaluating State Education Technology Programs initiative
- Principal Investigator for the evaluation of the Striving Readers Initiative – Chicago Public Schools
- Principal Investigator for the Audit of Magnet Schools and Programs for the Pittsburgh Public Schools.
- Principal Investigator for the evaluation of Magnet Assistance Program evaluations for various New York City Districts
- Principal Investigator for a national data profile initiative for the Bill & Melinda Gates Foundation
- Principal Investigator for the evaluation of the College Board’s New York Education Initiative
- Principal Investigator for the evaluation of the College Board’s EXCEerator Schools Initiative
- Principal Investigator for the evaluation of the English Language Arts Initiative in the Cleveland Municipal School District
- Principal Investigator for the evaluation of the North Carolina Reading First Program
- Principal Investigator for the N.J. Math Science Partnership
- Senior Advisor for the evaluation of the EETT Project in NYC’s Region 10
- Principal Investigator for the evaluation of the Illinois Technology Immersion Pilot Project (TIPP)
- Principal Investigator for the evaluation of the Chicago Public Schools’ Supported Core Reading Materials Adoption (SCRMA)
- Project Director for the Interim Evaluation of the State Senate-supported partnership between the Maryland State Education Department and the Baltimore City Public Schools

- Co-Director for the multi-year evaluation of the New York City Board of Education Summer School.
- Principal Investigator for the U.S. District Court-ordered evaluation of the Desegregation-based Remedy in U.S. v. Yonkers

Technical Assistance

Provided technical assistance to local education agencies seeking to collect, analyze and utilize data to improve teaching and learning. Developed systems that organized and presented data in a user-friendly manner to teachers, administrators, parents and policy makers.

- Developed needs assessments for schools and school districts that analyzed achievement and other student-, staff- and school-related information
- Member of the Advisory Committee - Cleveland Municipal School District Math Science Partnership
- Provided technical assistance for the evaluation of Magnet Schools Assistance Programs
- Provided technical assistance for the evaluation of many USDE-supported Title VII (bilingual) grants
- Provided technical assistance for the evaluation of two USDE-supported Technology Improvement Challenge Grants
- Member of the Advisory Committee of the Bill & Melinda Gates Foundation-supported Jobs for the Future early college high school initiative
- Member of the Advisory Committee for the N.J. Math Science Partnership.

Work History	2007-present	Senior Vice President, Metis Associates, Inc.
	1992-2007	Vice President, Metis Associates, Inc.
	1981-1992	President, Educational Computer Resources, Inc.
	1992-2005	Adjunct Professor of Education, Queens College, C.U.N.Y.
	1984-1991	Assistant Director, Center for the Improvement of Education, and Adjunct Associate Professor of Education, Queens College, C.U.N.Y.
	1977-1980	Senior Research Associate, New York Institute of Technology
	1968-1976	Assistant Professor of Education, Queens College, C.U.N.Y. Assistant Chairman for Elementary and Early Childhood Education (1972-1974)
	1968-1977	Executive Vice President, Teaching & Learning Research Corporation

Dennis Cribben, MBA

Director of Special Projects/Information Technology

Summary As Director of Special Projects, and formerly as Metis Associates' Information Technology Division Director, Mr. Cribben has had overall responsibility for and currently consults on key IT projects within the Metis' consulting practice as well as the delivery of IT services by the firm. Mr. Cribben has overseen a variety of projects involving technical support for innovative human services delivery and evaluation initiatives in the fields of child welfare, community development, juvenile justice, and K-12 education. Services involve both assisting clients in the definition and planning of information technology needs, and the development and implementation of systems through Metis' team of senior consultants and experienced application developers.

For the last three years Mr. Cribben has been extensively involved in providing project management support and data quality services across a wide range of initiatives that are part of the Arkansas Department of Education Statewide Longitudinal Data system, and is very conversant with all aspects of this important effort.

Before joining Metis, Mr. Cribben held a number of senior level positions in government and in private sector government consulting involving the planning and delivery of IT systems and services.

- Skills**
- Systems Design and Development
 - IT Management/Administration
 - Project Management
 - Quality Assurance
 - IT Planning

- Education**
- M.B.A. Stern School of Business Administration, New York University: Computer Applications and Information Systems
 - M.A. Graduate School of Arts and Sciences, New York University: English
 - B.A. University of Notre Dame School of Arts and Letters: English

- Experience** For **MAXIMUS**, Mr. Cribben:
- Headed a joint consultant and agency staff project team of 25 business analysts, IT Architects, DBAs, Java developers, and infrastructure support staff in performing business process re-engineering, system design, development and implementation for the Texas Railroad Commission's Oil and Gas (mainframe to J2EE) Migration Project;
 - Served as Interim QA Manager performing an independent QA audit of the New York State Department of Taxation Empire Project, a multiyear business process/systems replacement effort; and
 - Participated in a major quality assurance engagement for New York City's

Financial Management System (FMS). For this \$150M+ ERP project. Mr. Cribben:

- Established an FMS Project Office with responsibility for coordinating project management and staff allocation and resource usage tracking across multiple initiatives;
- Coordinated QA reviews of requirements and design deliverables, coordinated systems testing activity and tracked software problem resolution; and
- Led an interagency task force in the development of an integrated citywide payee/vendor database, consolidating data stored in multiple databases/files, and facilitated establishment of a New York City vendor enrollment office and mass re-enrollment of city vendors.

For the **Port Authority of New York and New Jersey**, Mr. Cribben managed internal consulting units of 12-16 senior level IT professionals with varied responsibilities for corporate IT oversight, project consulting, and management of IT architecture and infrastructure. He led or provided business/technical consulting for large-scale system acquisition/integration projects associated with the agency's capital programs. Mr. Cribben prepared/evaluated feasibility studies, functional requirements and RFPs; evaluated vendor proposals; and negotiated/managed system integration contracts and service agreements.

Projects included a/an:

- Airport security system at three New York metropolitan airports;
- Integrated security system, emergency control center and building management systems for the World Trade Center complex;
- Access control and intrusion detection system at trans-Hudson bridge and tunnel crossings;
- Automated fare collection system for a NY/NJ bi-state rail link;
- Tolls registration system;
- Early planning for electronic tolls (EZ Pass) initiative;
- Airport parking lot revenue control system; and
- CAD master plan/standards and migration project.

Mr. Cribben also developed the agency's *Platforms Standards and Guidelines* and *Turnkey Systems Standards and Guidelines* which defined standards for platform selection and turnkey systems acquisition. He developed a corporate IT oversight program and guided development of and audited distributed systems with respect to IT architectural fit and adherence to IT standards. He also held major responsibility for development of the Information Services (IS) Department annual and five-year plans, mission/strategy statements and IS budgets.

For the **City of New York Human Resources Administration (HRA)**, Mr. Cribben served as an Assistant Director for a large project office that migrated the city's human service applications to a new statewide Welfare Management System. Subsequently, Mr. Cribben also held the post of Director of Planning for HRA's data center, responsible for development of IT strategic plans, liaison with oversight agencies, hardware, software and telecommunications planning

and data center finances.

**Certifications/
Professional
Affiliations** PMP (Project Management Institute)
Project Management Institute

Work History

2004-present	Director Special Projects , Director Information Technology Division, Metis Associates
1998-2004	Director/ Senior Manager Consulting, MAXIMUS, Inc.
1985-1998	Program Manager for Capital Programs/Manager Information Technology Consulting and Technical Support/ IT Planner, Information Services Department, Port Authority of New York and New Jersey
1983-1985	Director, Office Of Planning, Office of Data Processing, New York City Human Resources Administration
1980-1983	Assistant Director, Welfare Management System (WMS), New York City Human Resources Administration.
1978-1980	Deputy Director/Project Manager, Office of Operation Support, New York City Human Resources Administration

Lori Gerstein Ramsey, Ed.D.

Senior Research Associate

- Summary** Dr. Ramsey has several years of experience as a researcher and educational program evaluator in K-12, community-based and higher education settings as well as a special education teacher and technology coordinator.
- Skills** Experience in many areas of research and evaluation including development of project plans, project management, instrument development, report writing, focus groups and interviews, substantial experience with gender issues in STEM, educational technology implementation and evaluation, and familiarity with educational policy.
- Education** EdD, Instructional Technology and Media, concentration in Educational Policy, Teachers College, Columbia University
MEd, Curriculum and Instruction, specialization in Instructional Design and Technology, University of Cincinnati
BS, Special Education, Miami University
Ohio Licensure: SBH (Severely Behaviorally Handicapped)
Ohio Licensure: SLD (Specific Learning Disabilities)
- Experience** **Educational Program Evaluation and Research**
Evaluator of various projects involving institutions of higher education (MSP, FIPSE, PT3, and NIH), technology (ESETP, EETT, PT3, CTC, and Laptop projects), violence prevention (Safe Schools Initiative), school-based reform, and Title VII projects in local (NYC) and out of state schools and districts. Also working as member of project teams on such large-scale projects as a federally funded evaluation of the State Educational Technology project in Arkansas and the evaluation of standards in the Cleveland Municipal School District. Dissertation work focused on gender issues in technology in higher education. Completed formative and summative evaluation work using both quantitative and qualitative research methods.
- Works directly with schools, State personnel and others to develop evaluation plans
 - Creates research designs and evaluation plans, interview and focus group protocols, analysis plans, and developed instruments (including surveys) for use in the field
 - Conducts interviews and focus groups and completes data analysis as well as report writing
 - Analyzes data from multiple sources and triangulates the results
 - Develops and provides support for proposals focused on education.
- Evaluator of educational technologies developed for professors at Columbia University and affiliates. Developed and administered surveys,

conducted focus groups and interviews, usability testing, statistical analysis and writing of final reports based on technologies and their effective use in the classroom and beyond.

- Participated in both formative and summative evaluation with both quantitative and qualitative research methods employed
- Worked with faculty, developers, educational technologists, and students to develop and administer evaluations of programs and make recommendations for future iterations of technologies
- Served on design teams as an evaluator/Q.A. specialist in order to assure high quality and objective related products.

Education Practitioner

Worked with a team including 6 Special Education teachers, and 4 regular education teachers in a secondary school. Taught in self-contained Severely Behaviorally Handicapped (SBH) classrooms as well as in inclusionary situations supporting special education students in regular classrooms.

- Co-facilitated the New American Schools Co-NECT model of education, an interdisciplinary, project-based, and technology rich model. Attended various Co-NECT conferences, and a member of both the school and district Design Team
- Participated in the pilot of the Reinventing Education Grant by IBM. Made presentation to the Ohio State Board of Education regarding the programs of study and progress at Aiken High School
- Orchestrated and supervised the Ohio School-Net wiring of the school, and the installation of the network supporting 400 users
- Served on the district's technology team, developing requirements and planning expansion of technology throughout the district
- Developed technology curriculum and taught the curriculum to team of 150 students. Developed and conducted professional development with teams of teachers.

Work History	2005-present	Senior Research Associate, Metis Associates, Inc.
	2003-2005	Research Associate, Metis Associates, Inc.
	2001-2003	Research Analyst, Metis Associates, Inc.
	2000-2001	Evaluator, Columbia Center for New Media Teaching and Learning
	2000-2001	Evaluation Consultant, Institute for Learning Technologies Editorial Assistant for Research and Practice Resources, Teachers College Record
	1999	Instructor, University of Cincinnati

1997-1999 Technology Coordinator, Cincinnati Public Schools
1996-1999 Special Education Teacher, Cincinnati Public Schools

Michael Scuello, B.A.

Senior Research Associate

Summary Mr. Scuello has several years of experience in data management, research design, statistical analyses and hardware/software technical support. He has extensive knowledge in handling longitudinal education datasets and several standardized examinations (e.g., SAT-9/SAT-10, ITBS, TPRI). In the past, he has managed Metis' internal data management and statistical analysis team, the IT network support staff and co-managed the IT application development staff.

Skills Detailed knowledge of parametric and non-parametric analysis techniques, research methodology, database design, multi-platform file handling and conversion (Linux, MacOS, WinOS), computer hardware, operating systems and software packages. Substantial understanding of server maintenance and networking (hardware and software).

Education Ph.D. Candidate, Experimental Psychology, City University of New York

BA, Psychology, New York University

Experience **North Carolina Department of Public Instruction - High Priority Schools Initiative**

Elementary schools identified as 'High Priority' (i.e., low achieving) by the state department of education are followed through several years to determine whether additional funding and support have facilitated changes in student performance. Mr. Scuello currently manages all data and analyses for this multi-year initiative.

- Gathers and consolidates datasets from the state department's liaison
- Organizes qualitative data for analyses
- Generates data mart to store data for multiple years of initiative
- Identifies possible comparison schools from the statewide dataset
- Assists in generating a comprehensive analysis plan in response to target research questions
- Conducts all demographic and statistical analyses

New York City Department of Education (multiple initiatives)

Mr. Scuello has provided statistical analyses and research design support for a multitude of individual school district and citywide initiatives, including, but not limited to, Title I and VII, 21st Century,

American Gateways, Summer School and various curricular evaluations. He also assisted in designing and building a data mart from several years of education data. He currently manages said data mart and collects data from the departments' central office on a regular basis.

- Gathers and consolidates datasets from the city's education department
- Conducts demographic and statistical analyses
- Provides research design support / creates analysis plans
- Updates data mart when new data is available
- Generates new queries / storage routines to handle changes in data over years
- Provides technical support to Metis' current statistics and data manager
- Generates canned reports for recurring analyses

Cleveland Municipal School District (multiple initiatives)

Mr. Scuello has provided statistical analyses and research design support for several initiatives, including Reading First and multiple evaluations of literacy programs. Most initiatives rely heavily on survey research, resulting in the use of more complex statistical designs including hierarchical linear modeling, regression and factor analysis. He is currently responsible for most data collection and consolidation from the department and all analyses for several active initiatives.

- Gathers and consolidates datasets from the district
- Conducts demographic and statistical analyses
- Provides research design support / creates analysis plans
- Provides technical support to staff working with the education data

Work History	2006-present	Senior Associate for Design and Analysis, Metis Associates, Inc.
	2005-2006	Senior Research Associate for Design and Analysis, Metis Associates, Inc.
	2002-2005	Senior Systems Associate, Metis Associates, Inc.
	1999-2002	Systems Associate, Metis Associates, Inc.
	1998-1999	Research Assistant II, Metis Associates, Inc.
	1998	Temporary Employment, Deutsche Bank, NA & Estee Lauder, Inc.
	1995-1998	Research Assistant, NASA-IRA

- 1994-1999 Adjunct Faculty, Department of Psychology, Brooklyn College, C.U.N.Y.
- 1992-1994 Caseworker, Coney Island Hospital Psychiatry Services
- 1987-1992 Accounts Receivable Clerk, Fab Industries, Inc.

Frances Lochte, BA

Senior Associate

Summary Extensive experience in the fields of education, social services, manpower development and law enforcement, which includes ten years of successful program delivery and management, twenty successful years in the construction and management of information systems, and ten successful years as a provider of consulting services to state and local government agencies and community-based nonprofit organizations.

For the last three years Ms Lochte has been extensively involved in providing project management support and data quality services across a wide range of initiatives that are part of the Arkansas Department of Education Statewide Longitudinal Data system, and is very conversant with all aspects of this important effort.

Skills Broad knowledge of state and local government operating environments and programs. High level of methodology-based competency in performance modeling and measurement, benchmarking and the design of executive information systems. Skilled in the application of analytic techniques to program evaluation and redesign. Toolkit includes soft systems analysis, data modeling, area activity analysis, dynamic systems modeling and capacity analysis.

Education BA, psychology, Mt. Saint Agnes College (Loyola College in Maryland) Additional coursework at New York University (information technology) and The New School for Social Research (human resources and manpower development)

Relevant Experience **Benchmarking Performance of Child Welfare Service Systems**
Currently engaged by the Annie E. Casey Foundation to benchmark the outcomes that the nation's child welfare service system achieves for children. The project involves definition of indicators or measures of the outcomes, matching those indicators to the best available comparative data and identifying or suggesting benchmarks, both quantitative and qualitative, against which jurisdictions can judge their own performance.

- Modeling of service-system characteristics in the areas of policy, program design, system structure and front-line practice
- Research and analysis employing national datasets as well as local data
- Definition of indicators and benchmarks; specification of calculation methods.

Workload and Capacity Analysis, Performance Measurement

For the New York City Administration for Children's Services, conducted a systematic examination and analysis of the workload during the ninety days following a child's removal from home. Products included recommendations related to performance measures, a capacity analysis and recommendations

related to the resources required to implement a planned programmatic initiative, and identification of opportunities for improving agency procedures and protocols.

- Reviewed policies and procedures
- Interviewed managers and front-line personnel
- Analyzed data extracted from the agency's in-house automated system, enhanced with data extracted from paper case records
- Modeled the organization's structure, processes and workflows
- Identified opportunities for performance improvement.

Information Technology Management and Planning Support

Provided Information Technology (IT) management and planning support to Georgia's Policy Council for Children and Families/Community Partnerships Initiative and Family Connection. The Policy Council was a state policy-making body responsible for directing efforts to achieve positive results for children and families. Family Connection is a statewide network of counties that has established broad-based public/private partnerships to plan and pursue strategies for obtaining improved results for families and children.

- Provided IT support for the Council in its role as leader of a broad community-based initiative to re-engineer Georgia's human-services delivery system by establishing universal contact with newborns and families, improving access to services by streamlining intake and eligibility processes, creating a network of one-stop offices with a family orientation, and setting up a system of evaluation and accountability
- Documented the organizational entities and automated systems relevant to the re-engineering initiative; conducted extensive interviews with IT managers and staff in every agency and reviewed documentation for existing and planned systems; constructed models of the state-wide information architecture supporting organizations operating within the health and human services domain
- Facilitated joint-application-design (JAD) sessions; planned and led sessions at which managers, front-line staff and application developers specified a new front-line service process and defined requirements for a front-line system; documented the results of these sessions and constructed data, process and workflow models.

Work History

1993-present	Senior Associate, Metis Associates, Inc.
1988-1993	Director of Information Systems and Information Security, New York City Department of Investigation
1984-1988	Director of Information Systems Quality Assurance, NYC Human Resources Administration
1981-1984	Director of Welfare Management Systems Planning, NYC Human Resources Administration
1979-1981	Director of Information Systems Testing and Audit, NYC Human Resources Administration

1975-1979 Program Research Analyst, NYC Human Resources
Administration
1973-1975 Employment Specialist, NYC Department of Employment
1970-1973 Employment Specialist, NYC Department of Social Services
1965-1969 Caseworker, NYC Department of Social Services
1964-1965 Child Welfare Caseworker, Cook County, Illinois Department of
Public Aid
1962-1964 Educator, Baltimore City Public Schools
1961-1962 Caseworker, Baltimore City Department of Public Welfare

Chao Li, BS

Systems Associate

Summary Mr. Li has more than four years of experience in web and database development at Metis Associates. Since 2003, he has been involved in various stages of the lifecycle of web-based and database application development including coordinating testing procedures, creating technical documentation, providing technical support to project managers and designing and coding applications and websites.

- Skills**
- Applications Programming – VB.NET, VBA, C#, C, C++, JAVA, OpenGL, 2LP, and FORTRAN
 - Web Development Applications – VB.NET and C# in Visual Studio; Java Servlet and JSP in Borland JBuilder; ASP, JavaScript, VBScript in Macromedia Studio
 - Database Development/Administration – MS SQL SERVER, MS Access, Oracle, MySQL, FileMaker Pro
 - Data Analysis/Report Writing – MS SQL Server Reporting Services, MS Excel, and MS Access, Crystal Reports
 - Data Transformations (ETL) Tool – MS SQL Server 2000 DTS, MS SQL Server 2005 Integration Services (SSIS)
 - Scripting Programming – JavaScript, VBScript, Perl, and UNIX Shell Script

Education B.S., Brooklyn College, C.U.N.Y.
Concentration: Computer and Information Science (Software)
Minor: Multimedia Computing

- Experience** Since joining Metis Associates, Mr. Li has participated in a variety of database and web development projects, including:
- Developed Access database applications for Annie E. Casey Foundation (National Tax Assistant for Working Family and Team Decision-Making), EAST Baltimore Development Inc., World Care Center, Inc.
 - Developed a web-based activities tracking system for the Bronx Institute GEAR UP Network
 - Developed a web-based activities tracking system for the South Bronx GEAR UP
 - Developed a web-based case management system in ASP.NET 2.0 and ASP.NET AJAX for the New York City Managed Care Consumer Assistance Program (NYC MCCAP)
 - Developed a web-based survey and reporting system in ASP.NET 2.0 and ASP.NET AJAX for the Jim Casey Youth Opportunities Initiative

- Currently developing a web-based data dictionary system in ASP.NET 3.5 for Arkansas Department of Education
- Currently developing a web-based data tracking and reporting system in ASP.NET 3.5 for Governor's Office for Children and Families
- Currently developing a database repository and web-based reports for the Bill and Melinda Gates Foundation
- Developed and updated several web-based surveys including the Jim Casey Youth Opportunities Initiative, EAST Arkansas, Model United Nations, Region 10, etc.
- Assisted in data analysis and reporting for the United Federation of Teachers (UFT) Dial-A-Teacher
- Performed general helpdesk and network administration support at Metis Associates
- Performed data management for the NYC Department of Education database

Work History	2007-present	Systems Associate, Metis Associates, Inc.
	2006-2007	Systems Analyst, Metis Associates, Inc.
	2003-2006	Systems Assistant, Metis Associates, Inc.
	2002-2003	College Tutor, Computer Science, Mathematics, Kingsborough Community College

Decision Ed Resumes

Mark Mason

Overall Program Manager for all activities within Arkansas.

Mark has worked with Arkansas staff including APSCN, ADE, and DIS over the past several years on projects related to data and Cognos technology. Serving as the Project Manager for implementation of Phase 1 Financial Reporting, Phase 2 Student Reporting, and Longitudinal Data Warehouse deployment Mark led the deployment teams throughout the implementation process. His experience with working with Arkansas staff and data over several years has provided continuity and insight across multiple projects.

Mark has been a nationwide consultant in the area of K12 data warehousing and reporting for several years. With over 12 years of experience with SEA and LEA data, Mark identifies and leverages best practices related to Data Warehousing and visual interfaces for SEA/LEA information consumers. SEA experience includes Massachusetts, Texas, Arkansas, Georgia, Maryland, and Washington. Large district experience includes Miami Dade County Schools, Palm Beach County Schools, Montgomery County Public Schools, San Diego City Schools, Round Rock Independent Schools. Working through cooperatives and collaborative organizations in Texas and Minnesota Mark led deployment efforts bringing together LEA's, both large and small, into integrated longitudinal reporting solutions.

Dan Conley

Onsite manager in Arkansas for all activities related to knowledge transfer, visual interface development and reporting analytic enhancements.

Dan has been working closely with Arkansas Department of Education staff, overseeing and assisting with the upgrade to Cognos 8, the deployment of an enhanced security architecture, and standardization of State Reports. Dan is currently overseeing and supporting ADE staff with the migration of ED Facts reporting into the Cognos environment.

Prior to joining the DecisionEd team, Dan worked for Cognos in the role of national manager for K12 Professional Service delivery. His responsibility included oversight of all K12 projects for SEA and LEA implementations. Prior to his management role, Dan was a Senior Architect working across K12 districts.

Luther Weeks

ETL Enhancements, Data Model Support.

Luther led ETL component of the initial implementation of EPMS within Arkansas. He developed the multi-database sourcing architecture that is used to automate the connections to the 490 individual Pentamation databases. His experience with working with DIS technical staff for team troubleshooting of build issues ensure an efficient, timely response to technical issues.

Prior to working on the Arkansas projects, Luther performed ETL consulting for Cognos Decisionstream to Cognos and Cognos clients. His mixture of experience between public sector and private sector projects ensures the best practices relative to data warehousing are integrated into each activity. Project experience includes Palm Beach County Schools, San Diego City Schools, Frederick Public Schools, State of Washington Department of Education (OSPI) along with numerous districts in Texas, Georgia, Maryland, and Pennsylvania.

Byron Johnson

Meta Data Modeling, Reporting Support

Byron led the deployment of EPMS reports and the development of the initial warehouse meta data model.

In addition to his experience working with Arkansas specific requirements, Byron has worked exclusively on K12 projects for the last few years including: GA Dept of Education, Miami Dade, Montgomery County Public Schools, San Diego Public Schools, and Frederick County Public Schools. Byron also provides technical support and project support for Cognos team members on education projects.

Triand Resumes

Dan Hansen, CEO and Founder

Mr. Hansen is an industry pioneer of large-scale Web-based applications with a proven track record in building teams that deliver large e-Commerce Internet solutions. He has led teams of engineers in developing the Southern Union Gas e-Commerce site (serving half a million customers) at Servana.com, Inc.; developing new products for companies such as Nortel, Ericsson and Deustch Telecom at Datum, Inc.; and developing products such as the original Microsoft Internet Explorer, Oracle Web Server, and the Prism technology used to deliver content to all Palm Handheld devices at Spyglass, Inc. At Dell Computer, he directed worldwide strategic planning, development, implementation and maintenance of software manufacturing for operating systems, readyware and graphical user interface applications. At Apple, he led a team of 15 engineers who delivered the first Apple Notebook with built-in handwriting recognition. Mr. Hansen has over 25 years of experience in the field. He studied Electrical Engineering at the University of Texas at Austin.

Nikolas White, Chief Financial Officer

Mr. White brings over 15 years experience in finance, operations, product development and testing to his role at Triand, including senior positions at Dell Computer and SchoolPeople. In Dell Finance, he was the Senior Financial Analyst for the Worldwide Software Development group (\$43 million, 360 person division). In Dell's Product Group, he was a Senior Engineer leading testing and quality teams in Advanced Systems, Software, Desktops, and Portables. Mr. White holds patents in hardware design.

As a Fulbright Scholar, Mr. White earned a Master of International Business degree at the Norwegian School of Economics and Business Administration, in Bergen, Norway and a Bachelor of Science degree in Electrical Engineering from Vanderbilt University. He is on the board of the Swedish-American Chamber of Commerce and the American-Scandinavian Foundation's Texas branch.

Richard E. Funderburk, Chief Developer

Mr. Funderburk is a senior level Systems Architect with over 20 years experience in embedded system development. When he joined Triand in mid-2008, he brought his business experience as the president of a 5-year old consulting firm year as well as his technical and engineering experience of two decades of cutting edge technology work with him.

Mr. Funderburk has a degree in electrical engineering/computer science from the University of Colorado at Boulder and is a published author, patent holder, and national presenter on issues relating to network synchronization and interoperability.

Budget Narrative

Budget Narrative

Attachment 1:

Title: Pages: Uploaded File: 1235-ADE.Bud.Narr.Just.FINAL.91908.pdf

Budget Narrative (Justification)

The Arkansas Department of Education (ADE) is requesting a Statewide Longitudinal Data System (SLDS) grant in the amount of \$4,967,992 from the U.S. Department of Education's Institute of Education Sciences (IES). The following description provides an explanation for the federal (i.e., grant) and non-federal resources that will be used to achieve the goals that have been established for this three-year project.

It should be noted that, in addition to the items described in this Budget Narrative, a very large commitment of resources has been and will continue to be made to this project by local school districts and school staff throughout Arkansas, as well as ADE institutional partners described throughout this application. Because the project is deeply embedded in the ongoing operation of the state's educational processes, it is difficult to distinctly isolate and quantify the full value of all non-IES grant-funded resources that will be used to carry out this work. As a consequence, budget documents included in this application, including this Budget Narrative, capture only the state-level ADE/Department of Information Services (DIS) resources most directly dedicated to this effort. Although an estimate has been included in the non-federal portion of the budget for data processing services contracted by ADE from DIS that are directly related to the project, no estimate has been made, for example, of the value of equipment and facilities that ADE is providing because there is no readily available formula for disaggregating these shared resources in a meaningful way.

Proposed Federal Expenditures: Years 1–3

Personnel. The ADE is requesting funds to cover the salaries of three full-time staff members—two Assistant Project Managers and a Cognos technical resource person—all of whom will report directly to the Project Manager, Neal Gibson, and the Project Director, James Boardman. These members of the core project management team will augment current staffing of ADE's Office of Data Quality and are responsible for ensuring that the many new initiatives outlined in ADE's new three-year SLDS agenda are carried out in an efficient and timely manner. The roles and responsibilities of these three key staff members are described in Section (f) Project Personnel and Resources in the proposal narrative. Salaries for these three staff members will be \$180,000 in Year 1. ADE anticipates salary adjustments of 2.5% in Years 2 and 3 of the grant, bringing the totals for those two years to \$184,500 and \$190,035, respectively.

Fringe Benefits. In keeping with ADE contracting and budgeting rules, fringe benefits for the three full-time salaried staff members include social security (7.65%), unemployment insurance (2.10%), worker's compensation (1.03%), retirement (14%), and health insurance (\$4,200 per full-time equivalent). Therefore, the total budget for fringe benefits in Year 1 will be \$57,204. Projecting that these fringe benefit rates will remain stable over the three-year grant period, the totals for fringe benefits in Years 2 and 3 will be \$58,319 and \$59,691 respectively.

Travel. As required in the RFA, ADE will send two representatives from the project to the annual grantee conference in Washington, D.C. In addition, funds are being budgeted to enable members of the core project team to participate in professional conferences or other off-site activities for the purposes of gathering and sharing information and networking. Although the

nature of this out-of-town travel will change and evolve over the three years, the amount of funding earmarked for travel is projected to be \$9,500 each year.

Equipment. No funds are requested for equipment.

Supplies. No funds are requested for supplies.

Contractual Services. ADE proposes to establish and/or expand a number of collaborations for the purpose of achieving the SLDS goals. As described further in Section (f) of the proposal narrative on project resources and personnel, grant funds will be used to support contracts with IBM/Cognos, Triand, Metis Associates, Decision Ed, CCSSO for Surveys of Enacted Curriculum (SEC), and a developer of online professional development tools (vendor not yet named). A brief description of each organization's services is provided below.

- In Year 1, ADE will purchase from **IBM/Cognos** an upgrade to its current Cognos 8 data warehousing and BI tools license. The license will be expanded to a site license that no longer restricts the number of Arkansas educators who can access it. This will allow ADE to provide use of the Cognos tools suite to a wider population of users in the state and implement its planned initiatives relating to visualization—dashboards, visual analytics, and scorecards. The cost of the upgrade to the site license is \$1,240,000 and reflects price credits against ADE's previous investment with Cognos. The license will be purchased on a three-year, 0% financing plan, resulting in a cost of \$413,333 in each year of the three-year grant period.
- In Year 1, ADE will enter into a subscription contract with **Triand**—the current supplier of the electronic transcript transfer and automated student and teacher unique ID generating system—to use an expanded suite of product features beyond those currently under subscription. Many of the features that are delivered via the web on a SaaS (Software as Service) model—like Triand's electronic transcripts system—are already in use (albeit not yet under paid subscription) in about half of Arkansas' school districts. Projected costs for the expanded Triand subscription are based on a rate of \$1 per student. ADE is already assuming the \$1 per student cost (\$460,000) for the current Triand subscription. ADE will also assume 50% of the incremental \$1 annual subscription fee (\$230,000) and is seeking IES funding for the remaining 50% of the incremental subscription costs, or \$230,000 in each of the three years of the new grant period.
- In Years 1–3 of the project, ADE will purchase consulting services from **Decision Ed**, ADE's Cognos system integrator consultant, to assist ADE in implementing the visualization features of the Cognos 8 tools suite. These services are projected to cost \$150,000 in each of the three years of the grant. This will supplement funds ADE will expend with Decision Ed to continue providing support for the current Cognos implementation. An annual breakout of these costs by consulting days, rates, and travel is included in the Decision Ed worksheet in the project budget (ED 524 – Section C).
- In Year 1, ADE will enter into a contractual agreement with **Metis Associates**, a research and consulting firm that has been working with the ADE on its SLDS since 2005. Metis will

be providing management consulting across all areas of the ADE SLDS project effort, targeted support for several data quality initiatives, and program evaluation over the three-year span of the grant. Projected costs for the full scope of services to be provided by Metis are \$380,050 in Year 1, \$399,053 in Year 2, and \$419,005 in Year 3. An annual breakout of these costs by consulting days, rates, and travel and expenses is included in the Metis worksheet in the project budget (FD 524 – Section C).

- In Years 1-3, ADE will purchase a core membership in the CCSSO's Surveys of Enacted Curriculum (SEC) services at a cost of \$20,000 per year.
- During Years 1-3, ADE will engage a web-based training development vendor to assist ADE in developing and maintaining a set of computer-based training modules directed at staff in many different roles across the educational enterprise. These training modules will focus on the mechanics of the SLDS interface and its content, as well as best practices in the use for DDDM. The anticipated cost of these services is \$80,000 in each of the three years of the grant period, of which ADE is seeking \$40,000 annually in IES grant support.

Construction. No funds are requested for construction.

Other. No funds are requested for other items.

Indirect Costs. ADE has budgeted 10% for indirect costs, which is the rate that it has negotiated with the federal government. ADE anticipates that this rate will remain stable over the three years of the grant. The indirect costs will be \$148,009 in Year 1, \$150,470 in Year 2, and \$153,156 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. The State of Arkansas is contributing significant staff resources to ensure the successful design, implementation, and use of the SLDS. The proposed Project Director, James Boardman, will devote 20% of his time to the project each year. Mr. Boardman will be supported by colleagues from the ADE, each of whom is slated to play a key role in the project (details regarding the specific staff members providing in-kind support are provided in Section (f) of the proposal narrative and Section C of the budget). ADE has in place a project management structure as outlined in Section (e) of the proposal narrative, including a Project Management Office, a full-time Project Manager, and a full-time Assistant Project Manager. Based on ADE's experience in the last three years, it is anticipated that the other key ADE project staff named in the grant will, in almost all cases, need to devote 20% of their time to this project, and one will need to be dedicated at 50%.

In the new grant period the project will transition toward placing more emphasis on engaging educators and institutional partners in an effort to drive more effective utilization of the SLDS through a focus on DDDM, research, and data sharing. This emphasis and the improvements in the SLDS technical infrastructure are expected to engage these ADE staff just as much as in the earlier focus of laying the project's technical foundations and carrying out the initial implementation phase. ADE anticipates that the same staff members will work on the project in

all three years, and that the percentage of time dedication will remain relatively constant from year to year, varying in total cost only as a function of salary adjustment. These in-kind staff resources will total \$265,100 in Year 1, \$271,728 in Year 2, and \$278,521 in Year 3.

Fringe Benefits. The same fringe benefits are budgeted for the in-kind personnel as for the grant-funded staff (i.e., social security, unemployment insurance, worker's compensation, retirement, and health insurance); as noted above, we anticipate that these fringe benefit rates will remain stable over the three-year grant period. The budget for fringe benefits will be \$81,862 in Year 1, \$83,504 in Year 2, and \$85,187 in Year 3.

Travel. No funds are requested for travel.

Equipment. No funds are requested for equipment.

Supplies. No funds are requested for supplies.

Contractual Services. In Years 1–3, ADE will continue to assume the cost of its subscription service from Triand for the electronic transcript transfer and automated student and teacher unique ID generating system that is currently installed and in use throughout the state. ADE will also assume 50% of the incremental \$1 annual subscription fee for new functionality, described above, for a total cost of \$690,000 in each of the three years of the grant period. At the conclusion of the grant period, ADE will begin to assume all Triand subscription costs.

In Years 1–3, ADE will purchase consulting services from **Decision Ed**, ADE's Cognos system integrator consultant, to continue to assist ADE in implementing aspects of the suite of Cognos 8 tools that are currently in use. With continuing knowledge transfer to ADE staff, these services are projected to diminish over the three year grant period, from \$220,000 in Year 1, to \$146,520 in Year 2, and \$73,260 in Year 3. An annual breakout of these costs by consulting days, rates, and travel is included in the Decision Ed worksheet in the project budget (ED 524 – Section C).

During Years 1–3, ADE will assume 50% of the projected \$80,000 in annual costs needed to engage a web-based training development vendor to assist ADE in developing and maintaining the computer-based training modules described above. The projected cost will be \$40,000 in each of the three years.

In Year 1, ADE will assume \$28,000 in CCSSO Surveys of Enacted Curriculum costs associated with project planning and professional development for ADE and Regional Service Center personnel that will lead the SEC project (the cost of web-based surveys will be borne by schools participating in the program).

In Year 3, ADE will purchase the services of a Data Quality Auditor to be named at a cost of \$50,000.

In addition, ADE will use non-federal resources to purchase the services of data processing and consulting support from the Arkansas Department of Information Systems (\$3,500,000 each year) to support the project.

Construction. No funds are requested for construction.

Other. No funds are requested for other items.

Indirect Costs. The indirect cost rate of 10% also applies to non-federal resources. Indirect costs on the non-federal share of the grant will be \$483,036 in Year 1, \$493,555 in Year 2, and \$507,077 in Year 3.