U.S. Department of Education

Washington, D.C. 20202-5335

APPLICATION FOR GRANTS UNDER THE

STATEWIDE LONGITUDINAL DATA SYSTEM RECOVERY ACT GRANTS
CFDA # 84.384A
PR/Award # R384A100010

Closing Date: NOV 19, 2009

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Application for Federal Assistance SF-424 Version 02

* 1. Type of Submission	* 2. Type of Application:	* If Revision, select appropriate letter(s):
[ ] Preapplication	[X] New	
[X] Application	[ ] Continuation	* Other (Specify)
[ ] Changed/Corrected Application	[ ] Revision	

* 3. Date Received:	4. Applicant Identifier:
12/1/2009	

5a. Federal Entity Identifier:	* 5b. Federal Award Identifier:
	NA

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Arkansas Department of Education

* b. Employer/Taxpayer Identification Number (EIN/TIN):	* c. Organizational DUNS:
716007390	781558564

d. Address:

* Street1:	ADE Technology Center
Street2:	8221 Ranch Boulevard
* City:	Little Rock
County:	
State:	AR
Province:	
* Country:	USA
* Zip / Postal Code:	72223

e. Organizational Unit:

Department Name:	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:			

* Last Name:	Boardman		
Suffix:			
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:

84.384A

CFDA Title:

Statewide Longitudinal Data System Recovery Act Grants

*** 12. Funding Opportunity Number:**

ED-GRANTS-072909-001

Title:

Institute of Education Sciences;(IES) Grant Program for Statewide Longitudinal Data Systems Recovery Act Program (ARRA) CFDA 84.384A

13. Competition Identification Number:

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 Improvement and Modernization Project

Attach supporting documents as specified in agency instructions.

Attachment:
Title :
File :

Attachment:
Title :
File :

Attachment:
Title :
File :

Application for Federal Assistance SF-424 Version 02

16. Congressional Districts Of:
* a. Applicant: AR-002 * b. Program/Project: AR-all

Attach an additional list of Program/Project Congressional Districts if needed.
Attachment:
Title :
File :

17. Proposed Project:
* a. Start Date: 5/1/2010 * b. End Date: 4/30/2013

18. Estimated Funding ($):

a. Federal	**$ 2855984**
b. Applicant	**$ 2230745**
c. State	**$ 0**
d. Local	**$**
e. Other	**$**
f. Program Income	**$**
g. TOTAL	**$ 5086729**

*** 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.
[X] c. Program is not covered by E.O. 12372.

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

[ ] Yes [X] 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)**

[X] ** 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:	Mr.	* First Name:	James
Middle Name:			
* Last Name:	Boardman		
Suffix:			

Title:	Assistant Commissioner

* Telephone Number:	(501)371-5005	Fax Number:	(501)371-5010

* Email:	JIM.BOARDMAN@ARKANSAS.GOV

* 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: 1894-0008

Expiration Date: 02/28/2011

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	$ 465,500	$ 477,138	$ 489,066	$ 0	$ 0	$ 1,431,704
2. Fringe Benefits	$ 144,751	$ 147,635	$ 150,591	$ 0	$ 0	$ 442,977
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	$ 1,976,598	$ 3,424,300	$ 2,131,838	$ 0	$ 0	$ 7,532,736
7. Construction	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
8. Other	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
9. Total Direct Costs (lines 1-8)	$ 2,596,349	$ 4,058,573	$ 2,780,995	$ 0	$ 0	$ 9,435,917
10. Indirect Costs*	$ 259,635	$ 405,857	$ 278,099	$ 0	$ 0	$ 943,591
11. Training Stipends	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
12. Total Costs (lines 9-11)	$ 2,855,984	$ 4,464,430	$ 3,059,094	$ 0	$ 0	$ 10,379,508

***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? [X] 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: [X] ED [ ] Other (please specify): _____ The Indirect Cost Rate is 0%

(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(c)(2)? The Restricted Indirect Cost Rate is 0%

ED Form No. 524

U.S. DEPARTMENT OF EDUCATION

BUDGET INFORMATION

NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

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	$ 298,300	$ 305,758	$ 313,401	$ 0	$ 0	$ 917,459
2. Fringe Benefits	$ 91,769	$ 93,617	$ 95,511	$ 0	$ 0	$ 280,897
3. Travel	$ 5,400	$ 5,400	$ 5,400	$ 0	$ 0	$ 16,200
4. Equipment	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
5. Supplies	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
6. Contractual	$ 1,632,481	$ 830,250	$ 1,162,000	$ 0	$ 0	$ 3,624,731
7. Construction	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
8. Other	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
9. Total Direct Costs (lines 1-8)	$ 2,027,950	$ 1,235,025	$ 1,576,312	$ 0	$ 0	$ 4,839,287
10. Indirect Costs	$ 202,795	$ 123,502	$ 157,631	$ 0	$ 0	$ 483,928
11. Training Stipends	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
12. Total Costs (lines 9-11)	$ 2,230,745	$ 1,358,527	$ 1,733,943	$ 0	$ 0	$ 5,323,215

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Standard Form 424B (Rev.7-97)

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

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 sub-agreements.

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 (Clear Air) Implementation Plans under Section 176(c) of the Clear 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. "1721 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

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 the 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.

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.

Signature of Authorized Certifying Representative:
Name of Authorized Certifying Representative: James Boardman
Title: Assistant Commissioner
Date Submitted: 11/25/2009

Approved by OMB 0348-0046 Exp.

Disclosure of Lobbying Activities

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

1. Type of Federal Action:	**2. Status of Federal Action:**	**3. Report Type:**
[ ] Contract [X] Grant [ ] Cooperative Agreement [ ] Loan [ ] Loan Guarantee [ ] Loan Insurance	[ ] Bid/Offer/Application [X] Initial Award [ ] Post-Award	[ ] Initial Filing [ ] Material Change **For Material Change only:** Year: 0Quarter: 0 Date of Last Report:

4. Name and Address of Reporting Entity:	**5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:**
[X] Prime [ ] Subawardee Tier, if known: 0 Name: Arkansas Department of Education Address: 8221 Ranch Boulevard City: Little Rock State: AR Zip Code + 4: 72223- **Congressional District, if known:**	Name: Address: City: State: Zip Code + 4: - **Congressional District,** if known:
6. Federal Department/Agency: U.S. Department of Education	**7. Federal Program Name/Description:** Statewide Longitudinal Data Systems CFDA Number, if applicable: 84.384A
8. Federal Action Number, if known:	**9. Award Amount,** if known: $0
10. a. Name of Lobbying Registrant (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: -	**b. Individuals Performing Services** (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: -
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.	Name: James Boardman Title: Assistant Commissioner Applicant: Arkansas Department of Education Date: 11/25/2009

Federal Use Only:	Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

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 any 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 or 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: Mr. First Name: James	Middle Name:
Last Name: Boardman	Suffix:
Title: Arkansas Department of Education	
Signature: _____	Date: 11/25/2009

ED 80-0013 03/04

SUPPLEMENTAL INFORMATION REQUIRED FOR DEPARTMENT OF EDUCATION GRANTS

1. Project Director:

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

Address:

* Street1: ADE Technology Center

Street2: 8221 Ranch Boulevard

* City: Little Rock

County:

* State: AR* Zip / Postal Code: 72223 * Country: **USA**

* Phone Number (give area code)	Fax Number (give area code)
(501)371-5005	(501)371-5010

Email Address:

JIM.BOARDMAN@ARKANSAS.GOV

2. Applicant Experience

Novice Applicant [ ] Yes [X] No [ ] Not applicable

3. Human Subjects Research

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

[ ] Yes [X] 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:

Attachment:
Title :
File :

Project Narrative

Project Narrative - Project Abstract

Attachment 1:
Title: **Section 5 - Project Abstract** Pages: **1** Uploaded File: **Section 5 - Project Abstract.pdf**

5. Project Abstract

Arkansas Department of Education's SLDS Improvement and Modernization Project

With significant help from its 2005 and 2009 IES SLDS grants, the Arkansas Department of Education (ADE) has established and continues to improve its SLDS, which by 2007 had already met all of the Data Quality Campaign's 10 essential elements. ADE is committed to achieving improvements in student outcomes and is pursuing a broad range of new initiatives to build a strong culture of DDDM that is enriched through cross-agency data sharing and engagement of the research community. In its December 2008 evaluation of the Arkansas SLDS, ADE's evaluator documented significant utilization and good end-user satisfaction with the SLDS and showed that schools that made the heaviest use of the SLDS experienced small but discernable growth in student achievement compared to other schools. ADE will use the opportunity provided by ARRA and the IES SLDS 2009 grant to advance several new improvements and accelerate initiatives to address the new SLDS standard set by the seven required capabilities and 12 elements outlined in the RFA. To improve the currency and utility of data delivered to stakeholders, ADE will significantly modernize its SLDS environment, replacing or restructuring legacy components and migrating to newer technologies and real-time data/information exchange and exchange standards. ADE will advance several bold, cutting-edge initiatives related to inter-agency data sharing and adoption of national data standards that will benefit Arkansas and advance the state of practice nationally. Backed by a strong endorsement for its planned activities by Arkansas Governor Mike Bebee and heads of several state agencies ADE will, in addition to meeting all current grant commitments, achieve the following outcomes:

- Expansion of the Arkansas Research Center (ARC) with participation from ADE; Arkansas educational research, teacher preparation, and educational policy institutions; and higher education, workforce, human services, and health agencies.
- Expansion and acceleration of current work on DDDM and researcher engagement, facilitation of relevant research within each of these agencies and research that requires data from these agencies to be combined.
- Development of the DDDM and researcher/policy portals and the conducting of targeted needs assessments to address gaps in SLDS utilization in some ADE administrative units.
- Establishment and utilization of teacher-student links to support evaluation of teacher effectiveness, and participation in the Gates Foundation-funded multistate Teacher-Student Link Project for Agency Leadership pilot.
- Expansion of data-sharing agreements to maximize amount of data about the Pre-K population collected in the SLDS.
- Participation in Arkansas's new state data-sharing consortium, the Arkansas Education to Employment Tracking and Trends Initiative (AEETT), and development of master data management/entity resolution, "TrustEd", and service oriented architecture (SOA) based solutions—including a focus on NIEM, SIF, and PESC data-exchange standards—to ensure privacy protection, FERPA compliance, and a high degree of interoperability.
- Completion of a two-phase modernization/standardization upgrade of the SLDS systems architecture, including replacement of 12-year-old statewide school information systems with a new SIF 2.0 compliant SunGard eSchoolPLUS solution, implementation of a state-level Zone Integration Server and restructuring of data exchange based on SOA/SIF standards.
- Implementation of a NEDM-compliant database synchronized to the current ADE production SLDS for use by researchers and data analysts, external data exchanges, and alignment of Arkansas' data definitions to the NCES Handbook.

ADE will continue to evaluate its SLDS implementation, including tracking stakeholder use and satisfaction and impact on student achievement outcomes.

Project Narrative

Project Narrative - Project Narrative

Attachment 1:
Title: **Section 6 - Project Narrative** Pages: **30** Uploaded File: **Section 6 - Project Narrative.pdf**

6. Project Narrative

(a) Need for the Project

Introduction and Current Status of the SLDS

With significant help from its 2005 IES SLDS grant and the recently awarded 2009 IES SLDS grant, the Arkansas Department of Education (ADE) has established and continues to improve its SLDS, which as early as 2007 had already met all of the Data Quality Campaign's (DQC) 10 essential elements. Today, ADE is aggressively pursuing a broad range of new initiatives that build on the foundation established in the 2005–2008 grant period, with a primary focus on driving the effective utilization of its SLDS data resources. ADE's objective is to engage the research community and build a strong culture of data-driven decision-making (DDDM) in the state that is enriched by sharing of data across the K–12, higher education, and workforce thresholds. In all of its work, ADE is committed to driving real and demonstrable improvements in student outcomes.

Since the 2009 award, ADE has moved forward with the initiatives described in its 2008 grant application and is working across several fronts. Earlier this year, ADE executed its statewide site licensing agreement with IBM/Cognos. Initial versions of scorecards and dashboards built using the Cognos tools suite are now being deployed, as is an ADE open source visual analytic and collaboration tool (Hive). Central to its drive to ensure the effective use of its data resources and tools, ADE recently completed the first phase of its strategic effort to engage institutional partners and educators throughout the state around a common and defined set of best practices, methods, and curriculum components necessary to achieving a culture of DDDM. Working with the Assessment and Accountability Comprehensive Center (AACC)/National Center for Research on Evaluation, Standards, and Student Testing (CRESST) and the Mid-Continent Comprehensive Center (MC3), ADE developed a stepwise framework and protocol for educational data analysis and decision-making at the school and classroom level, and is now working with its Arkansas institutional partners to make this a central element in educational practice throughout the state. ADE's parallel efforts to strengthen the framework for data sharing across the K–12 to workforce thresholds and other organizational boundaries have been reinforced by the establishment of a statewide multiagency data-sharing consortium established at the direction of the Arkansas Governor.

ADE is moving forward with many other SLDS initiatives to which it committed in its 2008 IES grant application, including those related to interim testing and curriculum development, integration of teacher licensure, professional development, district-level system integration, researcher access, systems documentation, and training. In its December 2008 evaluation of the Arkansas SLDS effort, Metis Associates, ADE's SLDS evaluator, was able to document significant utilization and a very good level of satisfaction based on results of surveys administered to some 5,000 Arkansas teachers, principals and other educators. In addition, Metis showed that schools that made the heaviest use of SLDS system resources experienced a small but discernable growth in achievement over schools that made less use of these resources. There is now a very strong indication that the work ADE is doing to develop the SLDS program is achieving results.

ADE has carefully reviewed the state of its SLDS implementation against the new standard established by the seven required capabilities and the 12 elements prescribed in the America COMPETES Act outlined in the RFA. As documented in the chart included in Section 10, Appendix C of this application, Arkansas can report significant accomplishment across many of these capabilities and elements, but there are still substantial gaps. Accomplishment in a number of areas is only partially complete, leaving room for further improvement. Therefore, ADE seeks to use the opportunity provided by ARRA stimulus funding and the IES SLDS 2009 grant competition to advance a number of new initiatives to address, or to more fully address, the required capabilities and elements outlined in the RFA. In doing so, ADE will begin to substantially upgrade its SLDS systems architecture. Legacy components that have been in place for a decade or more tie ADE to capturing data that are out of date for many potential uses; this is increasingly at odds with the users' needs and the forward-looking architectural strategies for data delivery expressed in Triand interfaces and Cognos business intelligence (BI)/visual tools. To guarantee the currency of SLDS data into the next decade, ADE will modernize its SLDS environment by replacing or restructuring legacy components and moving to newer technology and data and information exchange architectures that support real-time exchange. This is essential to keeping Arkansas aligned to the best and emerging practices being used by its SEA peers and others across the country, as well as ensuring that the SLDS continues to meet broader goals for enabling educational change and student improvement. In its approach to interagency data sharing and national data standards adoption, Arkansas is also seeking to advance several bold, cutting-edge initiatives with the potential to greatly benefit Arkansas and advance the state of practice nationally. Although these initiatives are consistent with emerging technology standards and trends, they have not yet been advanced by other SEAs to the extent that Arkansas proposes in this grant application.

Accelerating Arkansas' DDDM and Policy Research Agendas and Evaluating Teacher Effectiveness

Driving use of Arkansas' SLDS and creating a culture of DDDM in the state—in which data are used pervasively and materially to inform decision-making from the classroom to the highest levels of local and state policymaking—has been and continues to be the central focal point of all of ADE's SLDS work. An aggressive program to bring about these transformations is already under way based on commitments made in ADE's last grant application and funding provided through the 2009 IES grant award. In its 2008 IES SLDS grant application, ADE committed to engage several institutional partners, including the Arkansas Leadership Institute, University of Central Arkansas (UCA), and Arkansas Regional Cooperatives, to adopt a DDDM focus and integrate this into their respective professional development, training, and curriculum development and delivery programs. Working with AACC/CRESST and MC3, ADE conducted a year-long pilot project to determine how educators actually use the data provided in the SLDS. From this work came a stepwise framework and protocol for systematically engaging educators in detailed data analysis and identification of actionable relationships in the data they analyze. Following an evaluation of this phase of work, which is currently under way, this framework will become the basis of Arkansas' new DDDM-driven school improvement planning process in which educators will analyze their local school or classroom data, plan and carry out actions based on what the analysis shows, and over time continue to identify what other data should be

captured and analyzed. The DDDM framework will be shared with ADE's institutional partners for embedding in the state curriculum and will be advanced in other complementary ways to ensure widespread adoption in the state. A joint task force consisting of representatives from these institutional partners is being organized and will be charged with overseeing development of more detailed plans for the next phase of this activity, which will be further stimulated by the initial roll out of ADE's visual tools suite of Cognos-based dashboards and scorecards.

ADE has already strengthened its computer-based training facilities and is augmenting these with a more robust instructor-led training program. In past years, work by the University of Arkansas Fayetteville and NORMES has contributed substantially in this area, as has Arkansas' Educational Renewal Zones, which have representatives located at colleges across the state. To further support the goal of aligning the curriculum and sharing electronic lesson resources across the state, ADE is in the process of becoming 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 its 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. In a parallel effort, Arkansas is engaged in pursuing major new initiatives to strengthen institutional relationships with researchers to undertake substantive and directed research that will be fed back into the decision-making processes within the educational establishment.

ARC: Strengthening ADE DDDM and Policy Research Initiatives

ADE is moving forward on all of the initiatives it committed to as part of its DDDM and researcher engagement plans described in its 2008 IES grant application, but it has become apparent that progress in these areas could be significantly accelerated if there was a greater degree of centralized leadership, a greater commitment of resources, and a more focused organizational and institutional structure for coordinating this work. Although many partners have been involved, the central responsibility for coordinating the many DDDM and researcher engagement initiatives has fallen primarily to one Assistant Manager and one data management specialist within ADE's SLDS project management office (PMO), who must divide their time across several other initiatives. In response to this, ADE has recently entered into a partnership with the Arkansas Department of Higher Education (ADHE) and has established the Arkansas Research Center (ARC) under the joint governance of both ADE and ADHE. This relationship between ADE and ADHE has been given special impetus by the state legislature, which has specifically mandated increased collaboration between ADE and ADHE, including setting reporting mandates that require the matching of data between the two agencies.

The ARC is centered at University of Central Arkansas (UCA), with a main office in Conway, Arkansas, but it has been established as a cross-institutional entity that includes units at the University of Arkansas at Little Rock and the University of Arkansas at Fayetteville. The UCA is the primary center in the state for the development and promulgation of curriculum for teacher and administrator preparation in the state. The University of Arkansas at Fayetteville houses the Office of Educational Policy, the main educational policy research entity in the state. The University of Arkansas at Little Rock, and in particular its Laboratory for Advanced Research in Entity Resolution and Information Quality (ERIQ), houses staff with special expertise in

information technology, data standards, and data quality. Since its recent establishment, the ARC has been primarily focused on educational policy research, using data sets from both ADE and ADHE, and it has already begun a series of targeted policy studies beginning with an important study concerning remediation for Arkansas' students entering college in the state. However, Arkansas would like to greatly expand the scope and role of the ARC and have it assume responsibility for providing more focused leadership across the range of DDDM and associated researcher engagement initiatives being pursued by Arkansas under its 2009 IES SLDS grant award.

As described more fully elsewhere in this application, the ARC will play a major role in advancing several other initiatives/outcomes relating to cross-agency data sharing and standards adoption. Bringing these entities together in the ARC allows the integration, "under one roof," of specialists in teacher preparation, educational policy research, and information systems and data quality. This, in combination with the launching of interdisciplinary efforts based around a shared vision for advancing the goals of educational transformation—as articulated in ADE's SLDS applications—as well as the augmentation of resources to support this effort, can generate the critical mass necessary to stimulate the work described in this and earlier applications. The expanded ARC will provide a more focused organizational structure that is fully dedicated to ensuring the critical interaction between staff pursuing focused policy research and the work being conducted to promote adoption of the state's framework for DDDM. These institutions are already collaborating with ADE on SLDS related research and dedicate a substantial amount of staff time in helping ADE advance its SLDS DDDM and researcher engagement agenda. A number of researchers at ADHE are working on material related to the K–12 higher education transition and related issues. The SLDS PMO Project Manager also serves as the director of the ARC, and other ADE staff focused on DDDM work under the current 2009 IES award are now working under the ARC umbrella with staff from the UCA to embed the new DDDM framework into the curricula used to train state educators.

To take the ARC to the next level, ADE proposes adding a new Assistant Project Manager and four additional full-time equivalents (FTEs), including one senior program manager knowledgeable across all disciplines from each of four other Arkansas agencies, some of which are also collaborating with ADE in the state's cross-agency data-sharing initiatives. This includes the Arkansas Department of Workforce Services (DWS), the Arkansas Department of Health (DOH), the ADHE, and the Arkansas Department of Human Services (DHS). This will further enrich the interdisciplinary nature of the ARC with an interagency focus that is critical to viewing the "whole child" from early childhood through transition to higher education and the workforce, will open up many new research opportunities using combined interagency data, and is central to advancing an effective DDDM policy research agenda. To drive DDDM, the ARC team will be charged with expanding and intensifying outreach efforts to institutional partners, schools and school districts, parent organizations, and others, and will serve as the primary facilitator and staff resource to the broader task force comprising part-time stakeholders that Arkansas is in the process of establishing pursuant to the 2008 grant application work plan. This will allow Arkansas to give greater impetus to this work over the next 3 years. The team will be responsible for promoting and coordinating activities with all of the state entities that are involved, as well as systematically monitoring, measuring, and reporting on the progress of the state's transition toward a culture of DDDM and the outcomes being achieved. The expanded

ARC will work in close coordination with ADE's Research and Technology Division, the SLDS PMO, and all ADE units responsible for systems development and support of ADE's SLDS infrastructure to ensure close interaction between staff developing and implementing visual tools and related technology and data resources. The ARC staff spearheading the work will ensure that the initiatives related to visual tools deployment and the state's DDDM framework take hold. Similarly, the team for policy research will drive and help focus the policy research agenda by reaching out to researchers and policymakers, inviting researchers to utilize the state's SLDS resources, challenging researchers to address the critical questions facing educational policymakers, and ensuring that the results of policy research are driven back into the state's policy decisions. The ARC will serve as a research and development hub for driving innovation and technology solutions for the educational community, will play a central role (described below) in advancing technology solutions for the state's expanding commitment to data sharing, and serve as an incubator for work related to the development and utilization by Arkansas of national educational technology standards.

Developing DDDM and Researcher Collaboration Portals

As a critical aid in the advancement of this work, ADE will create a statewide DDDM collaboration portal that not only allows viewing of static information on a website envisioned in the 2008 grant application, but also becomes the central repository/collaboration site for all participants across the state to discuss their experiences; share lessons learned; and post guidance, best practices, online tutorials, etc. ADE will establish clear benchmarks and ensure regular reporting on statewide progress against these benchmarks through the collaboration portal. As appropriate, the portal will be linked to the ADE SLDS data repository (and potentially other data sources) to create a quasi-public portal site to allow for the presentation of various data aggregations, scorecards, and other artifacts deployed in the SLDS environment. ADE would like to establish a research policy portal that aggregates relevant materials from the research community across the states and internationally, where ADE and local policymakers, researchers, and others can view and discuss selected research papers and abstracts, including the anonymized data sets used in the research. The portal will be used to engage policymakers and promote collaboration between the researchers and the consumers of the research; the site will allow needed research projects to be proposed and discussed, and will highlight examples of the effective application of research to policy decision-making. The site will contain wikis and blogs, and encourage users to collaborate and share their opinions. The repository of data sets available on the site, which researchers will be required to cite in any published work, will allow additional analyses to be performed to test the original hypotheses and/or extend the original analysis into new areas. The DDDM collaboration and policy and research portals will be implemented using a SharePoint MOSS portal product for which ADE is already licensed, and both portals will run in a DIS hosting environment. The content of the portals will be guided by the ARC, and the technical implementation will be conducted by the technical specialist in the ADE Research and Technology Division with support from a consultant.

Evaluating Teacher Effectiveness: Teacher-Student Link

The establishment of effective teacher-student links needed to include student achievement as a component of teacher effectiveness has become an important priority for Arkansas over the last year. Arkansas' SLDS collects information on teachers, students, and the programs of study in which the students are enrolled, and these data provide the basis for analyzing teacher

effectiveness. In the past, however, these data have not been organized within the SLDS in such a way that they can be readily used to measure teacher effectiveness without additional technical work, nor has Arkansas previously developed a comprehensive strategy to address the complex set of policy questions that surround the use of student achievement data as the basis of evaluating teacher effectiveness. Arkansas has adopted and made effective use of a student growth percentile model methodology used in many states and localities to assess school and teacher contributions to student growth, and the results of these analyses have been widely disseminated and discussed among educators in the state. However, until now, these analyses have been aggregated at the district and school level but have not drilled down to the teacher and classroom level (exceptions exist, such as in a one-time special effort where ADE retrieved and provided Teach for America test scores for all their teachers, along with student growth percentiles). With each presentation of the aggregated district-level analysis, educators across the state are demanding that teacher-level analysis be provided; the idea is popular among teachers themselves, making this a priority for ADE to address.

Currently, ADE's Cognos data warehouse environment captures the planned schedule of courses to be taught by teachers only twice each year, in October and June. Using this infrequently captured course roster information as the basis for analyzing teacher effectiveness is by itself unreliable in establishing the teacher of record and is, therefore, inadequate as the basis of analysis. On the other hand, ADE's Triand system captures regular information about the teacher, class, and student assignments as they change throughout the year, and it also receives from ADE's assessment vendor detailed year-end test results for individual students. In addition, ADE is moving toward a near-term ETL solution that will result in much more frequent uploads to the SLDS from the Pentamation environment. Subject to timing of the availability of the Pentamation ETL upgrade, ADE will pull the requisite teacher, class, and student assignment data from one or, if needed temporarily, both of these sources at regular intervals to load an appropriate table within the Cognos data warehouse. When combined with year-end test results, ADE will then be able to use these data to perform the necessary growth model analyses and generate a variety of reports and visuals for display in its Cognos BI environment. With more reliable and timely information about the actual teacher-student course relationships over the course of the year, ADE will then be in a position to perform its analysis at the teacher level with greater confidence that it will accurately reflect the specific contributions made by specific teachers to the progress of the students they teach.

Arkansas has just been awarded a Teacher-Student Link Project for Agency Leadership grant by the Bill and Melinda Gates Foundation. Under this grant, Arkansas will collaborate with Florida, Georgia, Louisiana, and Ohio to address a broad range of system, process, and policy questions around how to most effectively measure teacher effectiveness. Arkansas' participation in this project will provide the critical broader context for how to most appropriately collect, validate, and use data. Through this grant, which engages states that already have the capability for capturing student-teacher course linkages, the Bill and Melinda Gates Foundation seeks to help states improve the collection, verification, reporting, and analysis of linked teacher and student data, with a special focus on the need for high-quality data that are comparable across states and validated by teachers. The project's goal is to develop and implement a common, best practice definition of teacher of record and a standard SEA business process for linking and validating teacher and student data (including state assessment data), with a small group of participating

states beginning with three pilot LEAs within the state. The first phase of the project, from April to June 2010, will involve a detailed needs assessment of each state and its participating LEAs; this assessment will evaluate each state's relevant data definitions, systems, and processes, and identify gaps between the current capacity/process and the project's goal. Participating SEAs and LEAs will then develop a common definition of teacher of record and a common business process for collecting and having teachers validate these data. Each state will then conduct a pilot implementation with its participating LEAs from July 2010 to October 2011. Collaboration across the participating states will ensure that a single, common definition and set of business processes are developed, and collaboration between the SEAs and their participating pilot school districts will ensure that the definition and processes accurately reflect the reality at the school level and will facilitate teacher buy-in. The CELT Corporation and the Data Quality Campaign will be actively involved in helping the Foundation implement the project. ADE will systematically adopt approaches, processes, and definitions from this work to inform and enhance its broader statewide efforts, which will proceed in parallel, especially with respect to the introduction of a means for teacher validation of the teacher of record. From October 2011 through the end of the IES grant period in 2013, ADE anticipates taking the piloted model fully to scale in its statewide implementation of teacher-student linkage.

To provide all stakeholders with the capability to better analyze, draw conclusions from, and collaborate around state education data, ADE has used the services of Enspire, Inc. to implement a new open source tool, named "Hive," which is now available to the general public online. Hive has many analytical and visualization capabilities. The tool's website is designed as a venue for collaboration, and Hive is contributing to an expansion of knowledge about student achievement in the state. The tool allows stakeholders to explore state and local test scores at the district, school, and individual levels, with filter options for program participation, demographics, and socioeconomic status. It also incorporates the Colorado Growth Model, which allows users to place growth measures on one axis and scale scores on the other axis to see improvements since prior test administrations. Individuals can work on their particular area of interest: a parent can compare schools in a district, a teacher can try to discover patterns of student performance, and a principal can try to determine if there are weak areas of instruction in his/her building. Users can post and share analyses they create, comment on the work of others, and share ideas in threaded discussions. ADE will engage Enspire to enhance this tool to incorporate teacher-student links so that this information can be made an integral part of the Hive environment for interactive use by stakeholders for a broad range of purposes in addition to its use within the state's scorecard and dashboard environments.

Comprehensive SLDS Needs Assessment Program: ADE Administrative Users

The Metis evaluation of the Arkansas SLDS project in December 2008, as well as regular interactions and discussions on the part of ADE with individuals at all levels of the educational establishment, has shown that use of the facilities provided by the SLDS is not universal. Although some non-use or limited use by individuals within the system can be attributed to a lack of education or training or ease-of-use issues (now being addressed via visualization), it is recognized that this shortfall is due in part to the system not always being fully attuned to the information needs of intended users and their unique roles. It has been several years since the original focus groups specified the requirements that led to the initial design of the SLDS that is currently used. As part of the current initiative related to DDDM and the development of

dashboards, scorecards, and visual analytics, ADE is establishing a process that emphasizes significant interaction with stakeholders in the major roles related to educational delivery, especially teachers and principals. ADE would like to undertake a more systematic and far-reaching needs assessment in which in-depth interviews will be held with key individuals within each of ADE's more specialized administrative units (e.g., special education, school meals, facilities, distance learning, etc.). Interviews will also be conducted with representative individuals in corresponding or similar administrative roles in the state, district, and school level organizational structure, institutional partners, and appropriate external entities. This will result in the development of a set of business use cases that more broadly captures these respondents' data needs. This information will be used to enhance the SLDS to be more fully responsive to the information needed by all the groups and individuals functioning in these roles.

Expanding and Enhancing Cross-Agency Data Sharing

Since before 2005, ADE has aggressively pursued a broad range of efforts to establish a policy framework for extending the state's longitudinal view of its students to P–20 and into the workforce. For some years, ADE has had in place agreements with ADHE for the execution of P-20 higher education matches for students entering all institutions of higher learning in the state, including private colleges, as freshmen in 2007. ADE now does annual matches as successive groups of high school graduates enter college in the fall of each year for the purposes of creating college-readiness reports that are sent to high schools and colleges. ADE also has agreements with Arkansas' workforce authorities for similar matching for graduating students entering the workforce. In both cases, the agreements permit the match activity but prohibit the introduction of the resulting match data directly into the SLDS, though match results are available in an offline repository for analysis by ADE or its designees. ADE also has long-standing data sharing agreements with DHS to certify meal status, electronically exchange transcripts for young adults entering DHS alternative learning environments, and provide data for the evaluation of the early childhood programs.

Important as these efforts have been, they have until now remained somewhat limited in their overall approach, involving ad hoc arrangements among the parties for exchanging files and manual handling of matching, de-duplication, etc. The dissemination of results is also far from a formalized process in which these data resources are well known, understood, and easily accessible by policymakers and researchers as part of the Arkansas SLDS or extended SLDS. In 2008, as part of its efforts to achieve more effective use of the SLDS, ADE committed to establishing a plan to engage appropriate institutional partners around the use of the match results to ensure that the results of these efforts are effectively interpreted and used as part of the state's focus on DDDM to address the appropriate questions about P–12 programs, policies, and performance. In its 2008 IES SLDS grant application, ADE indicated that it would begin in-depth discussions with institutional partners already engaged in higher education matching, including ACT, UCA, and others; review current strategies and plan and execute more comprehensive analyses based on match data; and solicit input from educators in the state. Although this work is progressing on a number of fronts, some of this work is about to occur in an entirely new context as the result of the launching of the Arkansas Education to Employment Tracking and Trends initiative, discussed below.

Arkansas Education to Employment Tracking and Trends Initiative (AEETT)

In August 2009, at the direction of Governor Mike Beebe, a Project Charter was executed by four state agencies to establish the AEETT consortium under the lead of the state's DIS and operating under the direct oversight of The Governor's Workforce Cabinet. The AEETT was established to plan and execute a series of cross-agency matches and produce reports on the progress of students in the workforce, as well as other topics to "unify Arkansas' current education, employment, and workforce development statistical results to aid in providing new and better services." The initial signatories to the agreement are the ADHE, ADE, DWS, the Arkansas Economic Development Commission, and the Arkansas Department of Career Education. It is anticipated that several other agencies, such as DHS, will become signatories in the near future. The signatories approved a detailed work plan and budget for DIS to carry out the initial phase of work, including the design, build, and implementation of a data mart data repository. This repository will contain selected education and employment data using extracted files from ADHE, ADE, DWS, and also the Arkansas Department of Finance and Administration (Income Tax System) that will be matched and merged for data analysis, with storage of non-personally identifying results. Data are to be included only after official documented approval from agency data owners, and, once completed, the data repository will be used only by authorized participating agency users for approved custom report views. Phase I will include identifying data sources to produce select reports, identifying missing data sources, documenting the methodology and approach for data storage and metadata, and documenting reports to be produced in this phase. The effort will also involve defining the scope of work of Phase II, including the involvement of additional agencies.

The plan set forth in the AEETT MOU and project plan provides the basis for important major advances in cross-agency data sharing in the state. However, a great deal of work beyond what is currently envisioned or explicitly discussed in the Phase I plan will need to be addressed in both the short and longer terms to ensure that the solution is robust, fully protective of privacy, and capable of meeting a broad range of data sharing needs, including those that bear on achieving improved educational outcomes. This changes the context in which ADE will advance elements of its previous SLDS cross-agency data-sharing strategies. ADE will need to address a number of new initiatives to support the work of the AEETT as currently envisioned and to carry out additional tasks to assist in the evolution of this new data-sharing environment over the next 3 years. ADE will regularly participate in the consortium's ongoing activities, working in both a governance and oversight capacity and also playing a technical participatory role. Most importantly, this grant application seeks funding for several positions in the ARC for representatives from AEETT and other partner agencies, allowing ADE to establish the ARC as an essential research and development arm of the AEETT. The ARC will collaboratively examine the multitude of issues around the current availability and quality of data in the systems of the participating agencies, contribute to the development of comprehensive business use case definitions to identify the range of most important data-sharing needs among ARC and AEETT partners, and help define cross-agency data governance processes. The ARC will also develop new forward-looking data-sharing strategies that are flexible, efficient, and in keeping with both the spirit and letter of FERPA, HIPPA, and all other state and federal laws concerning the privacy of individuals. By placing the control of FERPA-restricted educational data under the control of the ADE, ADHE operated ARC and using the TrustEd solution, described below, to filter data exchanges within AEETT, Arkansas will avoid the problem that AEETT would

otherwise face if it were to allow educational data to come under the control of non-educational entities.

TrustEd

Working in the ARC, ADE will focus on assisting DIS and other AEETT partners to develop and implement a set of technology solutions to achieve AEETT's goal of robust and widespread data sharing in the state while also protecting the privacy of individuals. In addition to its DDDM and research focus at the UCA, the ARC will expand its work by engaging ERIQ at the University of Arkansas at Little Rock as an additional ARC partner. ERIQ has already been deeply engaged in planning and the initial development of a statewide facility to address the need for secure FERPA-compliant cross-agency information exchange. Of immediate concern is the need to address FERPA and related privacy concerns where student data are to be shared within a consortium that is under the direction of entities other than ADE and ADHE.

To address both FERPA and general privacy concerns, the ARC Trusted Broker unit, TrustEd, will operate as a service bureau to the AEETT consortium by establishing a highly secure TrustEd registry of individuals known to AEETT partner agencies that will include linkages between agency-specific client IDs (CIDs). TrustEd will use industry standard master data management approaches, including deterministic and probabilistic matching, for entity resolution, thus ensuring a very high level of integrity of its registry index (something not achievable with social security number or other deterministic matching methods). It will receive requests for matched data from an external agency, perform a lookup within its registry to find the corresponding CID for the receiving agency, and send only the relevant set of CIDs to the receiving agency along with the request for matched data. The receiving agency will return the set of CIDs back to TrustEd along with the requested data, and TrustEd will remap the data set back to the requesting agency CIDs, returning the requestor's original requested file with the additional data, as long as policy and regulation allows. If not allowed, TrustEd will return anonymized data that are still at a unit level if it does not compromise the privacy of individuals. This procedure will accomplish the necessary exchange of data, but no personally identifiable data will move between the agencies that are party to the exchange. This process will also support returning de-identified data or aggregates back to the originating agency, depending on what policy and regulation allows. The ARC will work with the AEETT consortium to undertake the research, development, and testing activities necessary to move these TrustEd solutions to the point where an appropriate technology transfer can occur and the solutions can be migrated into regular, ongoing use by the AEETT consortium.

AEETT Interoperability Architecture

The consortium's data exchanges, including operation of TrustEd, will initially rely on traditional data exchange mechanisms such as the physical exchange of data files and storage of the matched data in the receiving agencies' data repositories or a central AEETT repository. However, creating a truly robust data-sharing environment that can flexibly handle a substantial increase in the volume and types of data exchanged over time by different agencies requires a more forward-looking architectural strategy that builds on best practices and emerging trends in data exchange methodology. The system must be able to handle everything from the large data sets exchanged less frequently for policy and research to exchanges involving real-time access to cross-agency data in the course of transaction processing. To address these requirements, the

consortium will likely need to migrate over time to a more federated approach based on the use of service-oriented architecture (SOA), web services, and SOAP technologies in which data from two or more agencies are linked virtually on an on-demand basis rather than physically integrated through the actual movement of data from a source agency and its persistent storage in a requestor's database. A federated approach provides efficiency and economy in resource use and is essential to maintaining the integrity and quality of data resources that can be problematic under circumstances in which every agency seeks to store and maintain all the data supplied by all of the agencies. With this environment in place, queries initiated by a requesting agency will spawn appropriate web service calls through the Trusted Broker to agency web services, and the results will be returned to the requester in a fully transparent process as if all of the data were stored within the agency's own data system environment.

The development of this federated strategy must address the standardization of data from the standpoint of the exchange models and the semantics of the data that are exchanged. It is essential for senders and receivers to be able to efficiently carry out exchanges without the need for custom mapping of every exchange, and to be certain there is an agreement as to the meaning of the data that are exchanged. As described elsewhere in this application, ADE intends to migrate toward the adoption of the School Interoperability Framework (SIF) along with standard data definitions published in the NCES Handbooks Online as the basis for the exchange of educational data in Arkansas as well as with educational entities in other states and the federal government. However, the AEETT data exchange consortium will involve the participation of many agencies, each representing a field of endeavor outside of education with its own unique data and exchange models. Very substantial momentum has been building around a national standard, the National Information Exchange Model (NIEM), for broad cross-domain data-sharing in the United States. Until now, NIEM has primarily involved a partnership of the U.S. Department of Justice and the Department of Homeland Security and related agencies to efficiently automate the sharing of critical information throughout the whole of the justice, public safety, emergency and disaster management, intelligence, and homeland security enterprise. However, recently, federal government representatives, several states, and local governments have initiated efforts to assess and, in some cases, adopt NIEM for information exchange not only within law enforcement, public safety, and antiterrorism operations, but also with a view toward its use for transportation, health, and human services. Comparable to SIF in the educational domain, the NIEM framework defines XML structured data components consisting of a common core and agency-specific extensions of the core components that together provide the mechanism for interagency communication. NIEM is based on the International Organization for Standardization (ISO) 11179. Most recently, the organization that handles NIEM, the NIEM Program Management Office, announced the beta release of NIEM 2.1.

ADE proposes to work with ADHE and other agency representatives in the ARC and AEETT consortium to assign responsibility to the ARC to undertake the necessary research and (to the maximum extent practical and indicated based on research) development and testing and other activities necessary to move the solutions described in this section (i.e., data federation, NIEM adoption) to the point where the technology can be transferred and the solutions migrated into regular use by the AEETT consortium. It is Arkansas' intent, working through the ARC, to place itself in the forefront of emerging efforts to address the technological challenges in expanding cross-agency data sharing. However, ADE recognizes that the solutions described in

this section are very much in the category of emerging practice and have scarcely begun to be considered, much less implemented, in other SEA environments. Thus, although ADE is committed to advancing this practice, its commitment to the outcomes to be achieved under this grant will extend only to conducting a proof of concept (POC) and follow-on pilot implementation. ADE recognizes that national direction on cross-agency data-sharing standards may undergo changes that impact this effort, and the readiness for full adoption by AEETT will likely be contingent on a number of factors that will only become fully understood as Arkansas pursues this work. As part of the POC and pilot effort, the ARC will address the need for a SIF to NIEM mapping solution, as well as mapping to the PESC standard, recognizing their role in the field of higher education. Working through the ARC, ADE will work closely with representatives of the SIF Organization, vendor partners it engages in its internal SIF migration, the NIEM Program Management Office, PESC representatives, and appropriate IES workgroups in this field.

Linking to Pre-K and Early Childhood

Historically, Arkansas has captured information about Pre-K students attending programs within the Arkansas public school system as part of its regular data collection processes for all students attending public schools. For some Pre-K students in private or publically funded programs outside of the public school systems, no data have been captured or made available within ADE's data systems. Hence, the potential for bringing Pre-K and K–12 data together for longitudinal analysis has been somewhat limited. Comprehensive data exist in the state pertaining to early childhood and Pre-K programs, but they are contained in systems maintained by agencies other than ADE. Although a number of matches and special studies involving crossing the Pre-K to K–12 boundary have been performed, Arkansas has not previously achieved the cross-agency data sharing in this domain that it now seeks to establish.

ADE is planning to take a substantial step in addressing these limitations through a data-sharing arrangement with Arkansas' Pre-K program, the Arkansas Better Chance (ABC) program, administered under the DHS Division of Child Care and Early Childhood Education. The ABC program serves 3- to 5-year-olds in Pre-K programs run by 318 agencies, including 145 school districts and cooperatives and 173 private providers in either center-based classrooms or through its Home Instruction Program for Parents of Preschool Youngsters. Places are allocated to children in families with incomes below 200% of the federal poverty threshold, with priority funding for programs in low-performing school districts. Importantly, the ABC program is of very high quality as measured by teacher standards, class sizes, and support services. The ABC serves 25,096 children, or one half of children eligible, and about one third of the 79,000 children in the state in this age group, including an approximately 9,000 children not currently know to ADE. The ABC program maintains a comprehensive roster of demographic information on all Pre-K enrollments and also maintains data pertaining to a number of screenings it performs on children participating in the program, particularly those in need of early intervention because of physical, emotional, or health problems. All ABC children are required to have an annual health and developmental screening. Body Mass Index (BMI) data are collected on all ABC children through ABC's web-based reporting system, and ABC children are assessed three times per year using the Pearson Work Sampling System. Information is maintained on early interventions triggered as a result of these screenings. ABC also maintains information on the educational background of teachers and paraprofessionals serving in its programs. These data

represent an excellent basis for the pursing of a number of avenues of valuable research, all of which are not being pursued at the present time.

To expand the population of Pre-K children known to ADE and available in the SLDS, ADE has recently reached an agreement with the ABC program under which the full roster of Pre-K students will be provided to ADE twice annually (which is sufficient regularity for the intended purpose). The information will include demographic and other screening-related information, as well as teacher and paraprofessional educational profiles. ADE will run this file through its unique ID identifier system to generate a 10-digit ID for each student. The roster will then be unduplicated for students already known to ADE, and all new Pre-K students not previously known to ADE will be added to the SLDS, specifically to the Cognos data warehouse. As a result, as school-age children not previously known to ADE enter the Arkansas public school system, they will already have a record relating to their Pre-K experience. In this way, ADE will achieve the objective of being able to extend its longitudinal view for a much larger percentage of its students back into Pre-K. Using the screening information and information on early interventions, ADE will be able to help itself and DHS to understand the efficacy of early interventions that are made as a result of ABC screenings, determine the impact of Pre-K teacher educational attainments, and evaluate other dimensions of the Pre-K programs delivered from the perspective of how the students progress later in their K–12 experience. ADE also has an agreement to obtain historical rosters, going back to 2005, which will allow it to immediately begin conducting comprehensive studies. Unlike some data received through cross-agency sharing, these Pre-K children will become students in the Arkansas K–12 school system, so it is appropriate that core data elements for these children be stored directly in ADE's SLDS. However, it is likely over time that a broader range of data collected in Pre-K, childcare, and related early childhood programs will be most effectively handled through a data federation approach as previously described. ADE's longer term objective is to expand the capture of information for all Arkansas children in this age category and ultimately to collect a broad range of information on children in the state from their earliest years to fully understand the impact of these experiences on their future educational success. The ARC will pursue a distinct agenda to maximize the collection and/or access to these data through the AEETT and direct negotiations with appropriate organizational entities, such as Department of Health, vital records, and child care providers, and to maximize its use in policy research and decision-making.

Restructuring ADE's SLDS Technical and Data Architecture

Over the past 4 years, ADE has solidified the basic elements of its current SLDS architecture, which was built using a combination of elements that were either already in place, under development, and/or newly acquired with funding from the 2005 IES SLDS grant. As described in prior grant applications, ADE began with an existing vertical reporting system based on near-universal adoption by school districts in the state of the Pentamation transactional system (which supports 245 school district instances of both the Arkansas Student Management System [SMS] and its Financial Management System [FMS]). These are all co-located in Little Rock in the DIS data center under the administrative control of the Arkansas Public School Computer Network (APSCN) Division. The district Pentamation system feeds data to a central statewide Student Information System (SIS) based on the state's nine-cycle reporting schedule. The state's Cognos based educational data warehouse, which was already being implemented at the time of the 2005

grant, was designed to provide a user-friendly and accessible front end to the SIS data by providing a set of dimensionally structured data marts and advanced BI tools and reports to administrative users. To address the broader and very urgent need to provide near real-time access (i.e., before certification of the data in the cycle process) to student data housed in the district Pentamation transactional system to a much wider audience of school-based educators (teacher, principals, and others), ADE used funding from the 2005 grant to begin a subscription to Triand's Software as a Service or cloud-based solution. This system pulled student data twice weekly directly from the district Pentamation system in near real-time into a virtual data warehouse, combined it with an extensive body of assessment data that Triand was authorized to collect, and made this extensive body of student information—including demographics, test scores, and much else—immediately available to school-based staff via Triand's web-based interface. Triand also provided ADE its solution for providing unique student IDs as well as transfer of transcripts between districts and to institutions of higher education through the same cloud-based computing solution. This architectural solution for deploying the state's SLDS provided a practical solution for leveraging resources or initiatives already in place or under way while at the same time meeting the imperative of putting longitudinal data immediately in the hands of large numbers of ADE educators at every level of the educational enterprise. This environment continues to be enhanced; in support of the large number of scholarship applications received under Arkansas' new state lottery for scholarships, this system will allow electronic transcripts to be automatically pulled into the ADE scholarship application, allowing a student to automatically see what scholarships s/he is eligible for.

In its 2008 grant application, ADE requested additional funding to help build on the basic architectural foundation to extend its front-end BI interface components, add visual components (e.g., dashboards, scorecards, visual analytics), and to integrate several additional source systems (e.g., teacher licensure, professional development, child nutrition, etc.) into the data warehouse environment. ADE also planned to expand the functionality of the Triand cloud environment (e.g., expand target testing, integrate LEA-based systems, etc.). Activities related to the further advancement of ADE's data quality program, including improvements needed to complete and extend its data dictionary/metadata management system and address the need for data quality measurement and audit, were requested and approved as part of that grant application. ADE is or will begin (depending on each initiative's scheduled start date) actively pursuing each expansion initiative. However, ADE has come to recognize the limitations imposed by several legacy components within the SLDS architecture adopted in 2005 and the need to restructure key elements in the architecture to forestall obsolescence and address the need for moving to a modern standards-based and real-time data oriented environment that SLDS end users increasingly need and expect. To address these limitations, ADE will conduct a two-phased restructuring and re-architecting modernization effort that involves short-term tactical improvements and long-term strategic changes.

Phase I: SLDS Technical Architecture and Data Quality and Reporting Improvements (ETL/Staging Area Restructuring and Other Improvements)

Technical Architecture. In the last year, ADE developed an initial roadmap for the development of an Arkansas SOA-based Enterprise Data System. The vision underlying this roadmap involves two main elements. The first, which will be the subject of the Phase 1 restructuring effort, involves restructuring the SLDS' ETL processes and back-end technical staging areas

where data are moved from district transactional systems, undergo certification in the state's certification cycle, and then move to the Cognos data warehouse. ADE has already begun this restructuring effort. Although this work addresses, in part, the initiatives outlined in the 2008 IES grant application to streamline the state's cycle certification process, it has now grown into a much more substantial effort to address a broader range of near-term objectives. Thus, ADE also plans to implement an operational data store in its back-end technical environment that will more rationally consolidate data feeds provided from the district systems as well as additional source systems it is working to integrate, including special education and professional development. ADE also plans to upgrade the ETL processing routines to handle daily batch loads of incremental changes in source data, which is essential if ADE is to begin making fully meaningful use of the non-cycle certified data collected from Pentamation environments and loaded to its "District Data Warehouse" region in its Cognos data warehouse (in contrast to the cycle data oriented "State Data Warehouse" region) to populate dashboards and scorecards. The new operational data store will allow ADE to ensure the synchronicity of time dimensions of the data that are migrated to the Cognos warehouse, thus eliminating the frustration of discrepancies between data viewed or reported in different environments due to point-in-time data collection issues. As committed to in the 2008 IES grant application, a facility will be provided to handle the cycle certification process online and improve overall quality management. Currently, Pentamation data are loaded via a set of old and brittle Informix 4GL Genaro ETL routines directly from the DIS mainframe to the SIS running on a DIS Informix database. ADE is seeking to more effectively document these programs as part the ETL upgrade effort already under way, but ADE needs additional resources to complete this work.

Data Quality. Since 2005, ADE has devoted substantial effort to creating an organizational structure and plan to ensure data quality. ADE established an Office of Data Quality (ODQ), established a formal program of data stewardship, and published a formal data quality campaign plan, and has gradually implemented elements of the plan with good results. In 2007, ADE established a web-based data dictionary/metadata management system. With 2008 IES grant funding, ADE is pursuing several data quality improvement initiatives, including expanding the data dictionary/metadata management system, developing a collaboration portal for data stewards, beginning a quality measurement and reporting program, and conducting a data audit from now through 2011.

Arkansas has made solid progress on quality programs and policies and has built a strong culture of data quality, but it has not previously addressed the complementary need to build quality directly into its information systems architecture, allowing quality to be addressed using facilities provided within the system. To address this, ADE will introduce a commercial data quality rules engine such as DataFlux or a similar product as part of its plan to restructure the data staging area, as previously described. The staging area will be designed to not only allow districts and schools to review and certify data, but also allow direct implementation of data quality monitoring and continuous improvement using profiling, standardizing, clustering, and other techniques, thus giving data stewards and others the ability to analyze the data and resolve problems in source systems. ADE would like to enhance, expand, and more formally organize its data stewardship program; this will realize the benefits of the new capability offered through such a facility, accelerate work currently under way to populate the existing data dictionary model, and address the very large body of work implied in the transition to the use of standards-

based data models and definitions discussed elsewhere in this application. ADE will designate more data stewards, including one more for each of the agency's major program areas—General LEA Information, Assessment, Title I, Title III/LEP, Teacher Quality, Special Education-IDEA, Accountability, Migrant Education, Homeless, Graduates and Dropouts, Technology, Discipline Area, and Financial Data. ADE will expand its current plans to develop a collaboration portal to exchange information between APSCN stewards and LEA data managers to include what will become a much broader and more strategic scope of activity. This will be supported by the development of an Information Reporting Training Program, including use of in-house data management and reporting experts and an outside training vendor who will deliver combination CBT modules and ILT training sessions. The program will ensure that state data management strategies, models, and associated policies and procedures become widely known, and that state data resources are developed in a way that most effectively support the state's goals of enhanced data sharing, improved interoperability, and greater data use.

Reporting. ADE is in the process of completing the work described in previous IES grant applications to maximize automation of EDFacts reporting from its Cognos Data warehouse. At this year's NCES Data Conference, USDOE announced its plan to transform the EDFacts Submission Plans into the EDFacts Metadata and Process System (EMAPS) tool, which ADE would like to do beginning in 2010. The purpose of this transition is to improve the way USDOE monitors timeliness and completeness of the data submissions, eliminate the current process of updating and uploading the Submission Plans, and enhance the features of the Submission Plans by integrating them with EDFacts. This will allow for the Submission Plans to eventually be maintained entirely online.

Phase II: SLDS Technical Architecture Improvements (eSchoolPLUS upgrade, SIF, and SOA Migration)

The subject of the Phase II restructuring effort is the planned migration to XML technologies and SOA. This will become the data exchange standard by which data will be brought into the SLDS environment and exported for use in public-facing portals (ADEdata), to other agencies, to partners in multistate collaborations, and to the federal government (USDOE/EDFacts). A major facilitator and accelerator of this work will be a new SunGard SIF 2.0 compliant district transaction system that ADE will acquire for all districts in the state. Significant discussion has already taken place with the key vendors who will be involved, SunGard Inc. and Edustructures Inc., regarding the required products and services and planned staging of these activities as further documented in attachments provided in Section 7 and the project Timeline included in this Section.

Upgrading SunGard Pentamation District Transactional Systems. The most basic building block in ADE's SLDS environment is its approximately 12-year-old SunGard Pentamation transactional system for student and financial management. By today's standards, the version of this system used by ADE for student management is well beyond its end-of-life product cycle. District and school-based staff are still able to fulfill their responsibilities using this system, but it is with increasing difficulty and at significant cost in terms of lost efficiency, diminished functionality, and absence of data quality support features compared to what is available in more contemporary student management systems, such as the current release of SunGard eSchoolPLUS. The current Pentamation system provides very limited SIF (1.0) support that is

inadequate for accomplishing a real and cost justifiable SIF migration today, as concluded from an earlier Edustructures ZIS pilot discussed below, which is a key reason for upgrading.

ADE continues to perform minor updates to the system, but, in the absence of up-to-date vendor documentation and after many years of patches and changes, ADE is experiencing increasing difficulty in understanding and maintaining both the Pentamation database schema and the logic embedded in the many ETL programs developed over the last decade that move data from Pentamation to SIS and the Cognos Data Warehouse. It is also expected the vendor will announce a date in the coming year after which the current product will no longer be supported. eSchoolPLUS has many functional enhancements that will be of great advantage to school and district personnel and also provide ADE staff much greater transparency and ease in maintaining the ETL environment. Similar to comparable products, the new SunGard version provides a transcript transfer system that will relieve ADE of the need for continued outsourcing of this functionality to Triand, and will provide a superior solution in that transcripts will be automatically transferred to the receiving schools' eSchoolPLUS system without the need for the manual re-entry of student data from Triand to Pentamation. Of particular note is the fact that the current version of eSchoolPLUS is SIF 2.0 compliant (and will provide an upgrade path to SIF 3.0), which is essential to allow Arkansas to advance its objective of standardizing SIF in its Pentamation to SIS vertical reporting system, as well as horizontal integration with external systems providing data to or receiving data from ADE's SLDS. Based on ADE's evaluation of SunGard and other upgrade paths, ADE believes an upgrade to the SunGard eSchoolPLUS system is in its best interest, both in terms of minimizing the cost to purchase and reducing the effort required to upgrade. At this time, Arkansas will seek only to upgrade its Pentamation SMS. In recent years, the ADE APSCN Division has invested a great deal of resources in fine tuning the Pentamation FMS, which is now stable and mature in spite of the age of the underlying platform. Therefore, ADE will defer consideration of an upgrade of the Pentamation-based FMS until after the SMS upgrade has been successfully completed.

Transitioning to SOA Using XML, SIF, Web Services (WS)/WSDL, and SOAP. With its planned transition to eSchoolPLUS, in 2010 ADE will begin to re-architect the education data integration and exchange process consistent with its SOA-based Enterprise Data System roadmap and the standards and technologies it employs. This will move the technical environment more fully in the direction of a SOA using XML-based exchange, including use of SIF 2.0, standard WS/WSDL, and SOAP. The objective is to achieve greater efficiency and reuse of technology investments and greater utilization of standards-based real-time or near real-time data exchange in contrast to the current need to exclusively develop and maintain multiple custom point-to-point batch-oriented exchange solutions. To achieve this, a statewide ZIS will be acquired that will serve as the central point of integration between the eSchoolPLUS system and the state's SIS and data warehouse environment. In a carefully planned and phased migration, data will be moved from eSchoolPLUS to the state's SIS and Cognos warehouse and other systems interoperating with these as XML-based SIF objects. ADE will use the SIF SDK to build the necessary connections to its legacy and non-SIF compliant components and/or will use the more ubiquitous WS and WSDL standards to fill out its SOA architecture where appropriate. Using SIF, ADE will migrate to a continuous, real-time incremental upload strategy to move data from eSchoolPLUS to SIS, addressing more completely the data latency problems that have inhibited the use of its "District Data Warehouse" component. ADE will use SIF as a

more effective way to integrate special education, teacher licensure, professional development, and other education systems that ADE is currently working to integrate into its SLDS; exchange data with EDFacts; and handle interactions with the state's new data-sharing environment, AEETT via TrustEd. The ZIS will be provided to schools and districts as an improved platform to integrate local data systems; this work is also under way based on the 2008 IES grant.

An Edustructures SIF pilot project was conducted in 2008 with three Arkansas districts, which provided ADE with critical experience in understanding how a statewide SIF solution can be deployed. Despite the limited amount of data elements supported with SIF 1.0 vs. 2.0, there is a great deal of interest among districts that a statewide ZIS be set up for schools to automatically populate their different software programs. A statewide ZIS will represent another enormous savings in time and effort at the school and district level. To establish better overall control and ensure synchronicity within the SLDS environment, once the ADE SIF environment is in place, ADE will migrate its Triand cloud computing solution provider to receive SIF feeds from ADE's re-architected back-end SLDS environment instead of from the 245 direct connections to transactional systems that are being used today.

NEDM/NCES Handbook: Standards Adoption and Alignment

ADE continues to do a great deal with respect to documenting metadata and data models used in its current environments, but it would like to begin work to make greater practical use of NEDM, the emerging national standard for educational data modeling. ADE also plans to adopt the data definitions in the NCES Handbook Online. Currently, ADE's SIS data management environment uses a non-normalized relational database structure that, although subject oriented, is optimized to support the ADE cycle collection and certification process and generation of required State and Federal reports. Although the structure represents a good and practical approach to meet the needs for collecting and subsequently reporting cycle data, it does not provide a global enterprise model for all of the agency's educational data. Data promoted from SIS to the Cognos data warehouse are organized into data marts closely following the structure of the SIS using a standard star schema and fact and dimensions tables. The data warehouse is optimized to provide easy-to-understand and quick response access to users querying information within the scope of the subject matter of a particular data mart. However, these structures do not (and are not intended to) provide either a normalized or global and comprehensive relational enterprise model view that is documentable in an entity relationship diagram, which is something that a number of ADE staff and potentially researchers and data analysts would like to have at their disposal as an alternative way to access this data resource.

ADE would like to leverage the work of the IES and the recent publication of the NEDM conceptual model (and expected forthcoming logical model) to initiate a project to map its SLDS and related repositories to the NEDM model, document this in its existing metadata management system, and extend the NEDM conceptual model using OWL and associated tool sets recommended by the NEDM task force. ADE will then build on an Arkansas-specific enterprise level logical model based upon, and conforming to the maximum extent possible with, the NEDM logic model. The NEDM compliant model will be built as an extension of the SLDS environment, will be populated with the same operational data store used to populate the Cognos data warehouse, and will keep in sync with the production SLDS environment. ADE will assign responsibility for this work to the ARC, where the detailed planning and implementation will be

carried out, and where the primary utilization will occur. In addition, this environment can be used as the source of data for the federated model for cross-agency data exchange, and integrating the NEDM database will be an important element in the POC and pilot AEETT interoperability solution implementations discussed above. Based on the successes and lessons learned in that effort, ADE will make these available to IES for sharing within the IES Data Modeling Task Force and with SEAs who may be interested in moving in a similar direction, and will consider any wider role that the model might play in the future evolution of its SLDS architecture. ADE will undertake a complementary effort to complete the mapping of data in its metadata management/data dictionary system to the NCES Handbook Online and the NEDM model. To the maximum extent feasible and consistent with the need to maintain the integrity of its definitions by retaining certain definitions currently in use, ADE will engage appropriate subject matter experts, data stewards, and affected stakeholders in a systematic review to convert ADE definitions to definitions published in the NCES Handbook. Inasmuch as the NEDM model is linked to the NCES Handbook as its definition source for NEDM entities, these efforts will be integrated in the way ADE organizes this work. The overall goal will be to create a transparent integration between the data resources used by SLDS end users and the associated metadata that defines what each of the components of this data resource means individually, as well as how each relates to all others within the framework of a statewide Arkansas global NEDM compliant educational data model.

Evaluation

Metis Associates, a national consulting firm that is conducting the evaluation of activities supported by the current (2009–2012) grant, will evaluate the new initiatives specified in this grant and integrate the findings associated with the new efforts with those related to activities that are already under way. In addition to expanding the formative evaluation that Metis is conducting through the third year of the current grant, Metis will design and execute a summative evaluation that provides a comprehensive evaluation focused on measuring the impact of the distinct initiatives associated with this 2010–2013 grant. Each of the proposed outcomes related to this grant (as specified in Section b, below) will be evaluated to measure the extent to which they have been met. The final year of the proposed evaluation will also include an in-depth analysis and review of the impact of the cumulative effects of the ADE SLDS investments on student achievement and teacher effectiveness. In 2013, Metis will produce a comprehensive assessment of the sustainability of the ADE SLDS elements that are in place. A formative evaluation of new initiatives will focus on evaluating activities pertaining to the acceleration of the ADE DDDM and policy research embedded into the expanded role that will be undertaken by the ARC, specifically the work of the ARC DDDM Team, including a needs assessment that will inform the design of the DDDM and research collaboration portals and an assessment of stakeholder use of these portals once implemented. The evaluation will also assess the progress of activities on behalf of statewide cross-agency data sharing through AEETT and its consortium partners. Under this grant, in addition to performing evaluation, Metis staff will also be engaged in both project management and technical delivery roles. However, as is addressed in more detail in Metis' Statement of Independence, included in Section 8 (Appendix A), Metis can assure both the USDOE and the ADE representatives that its evaluation will be thorough, useful, and while collaborative, findings will be based solely on the data that are collected and analyzed pursuant to the published research questions and to Metis work plan in accordance with established evaluation practices.

(b) Proposed Outcomes Related to System Requirements and Implementation Outcomes

Listed below are the proposed outcomes for each of the system requirements (both capabilities and elements) that Arkansas will be addressing with funding from this grant. The 11 outcomes are organized under three broad categories that closely follow the organization of Section a, Need for Project, in which each of the outcomes has previously been described and its need justified. Additional justification is also provided in Appendix C, where each outcome is cross-referenced to one or more of the seven capabilities and 12 elements listed in the RFA.

I. Acceleration of Arkansas' DDDM and Policy Research Agendas and Evaluating Teacher Effectiveness

1. ***ARC: Strengthening ADE DDDM and Policy Research Initiatives***
   - Establishment of an expanded role and expanded multiagency staffing for ARC.
   - Augmentation of staff resources dedicated to expanding and accelerating ADE's activities already under way to drive DDDM at all levels of the educational establishment and engage researchers in more focused policy research using the SLDS.
2. ***Development of DDDM and Researcher Collaboration Portals***
   - Establishment of web-based collaboration portals in support of ARC's work on DDDM and policy research.
3. ***Evaluating Teacher Effectiveness: Teacher-Student Link***
   - Establishment and utilization of teacher, student, and course linkages to support evaluation of teacher effectiveness.
   - Participation in the Gates Foundation sponsored Teacher-Student Link Project for Agency Leadership pilot, and development of a common, best practice definition of teacher of record and a standard SEA business process for linking and validating teacher and student data.
   - Implementation of these practices statewide after the pilot phase.
4. ***Comprehensive SLDS Needs Assessment Program: ADE Administrative Users***
   - Completion of a comprehensive needs assessment of SLDS needs for ADE administrative units.
   - Development and implementation of a plan to address these needs as part of the ongoing SLDS maintenance/enhancement process.

II. Expansion and Enhancement of Cross-Agency Data Sharing

5. ***AEETT***
   - Participation in and contribution to the successful completion of the AEETT Phase I work plan (development of Phase I reports and establishment of the shared online data mart).
   - Development and implementation of the AEETT Phase II plan.
   - Development of comprehensive business use case definition process that defines cross-agency needs for shared data and a cross-agency data governance process.
6. ***TrustEd***
   - Establishment of a Trusted Broker unit (TrustEd) within the ARC.

- Performance of entity resolution and integration of the operation of this facility into the AEETT consortium's data-sharing processes.

7. ***AEETT Interoperability Architecture***
   - Completion of the necessary research and development work and implementation of a POC and pilot implementation of advanced technology solutions for AEETT interoperability, including data federation, SOA, and adoption of the NIEM exchange model for interagency data exchange. Establishment of a SIF to NIEM mapping protocol and comparable mapping to PESC.

8. ***Linking to Pre-K and Early Childhood***
   - Conclusion of data-sharing arrangement and establishment of a file exchange process with the ABC program.
   - Addition of the ABC file as a regular data feed to the SLDS.
   - Development of expanded data-sharing agreements to maximize the Pre-K population registered to SLDS.

III. Restructuring ADE's SLDS Technical and Data Architecture

9. ***Phase I: SLDS Technical Architecture and Data Quality and Reporting Improvements (ETL/Staging Area Restructuring and Other Improvements)***
   - Restructuring of the current SLDS ETL and Staging Area environments and strengthen ADE's data quality program components and reporting.
   - Creation of a new operational data store, establishment of daily batch loads from ADE transactional systems, and inclusion of other ADE systems currently being integrated into the SLDS within this upgraded environment.
   - Automation of the EDFacts Submission Plans into the EMAPS tool, and installation of a commercial data quality rules engine.
   - Implementation of a significantly expanded data stewards program and expansion of data steward training.
10. ***Phase II: SLDS Technical Architecture Improvements (eSchoolPLUS upgrade, SIF, and SOA Migration)***
   - Upgrading of the current Pentamation district transactional systems to SunGard eSchoolPLUS.
   - Transitioning ADE's technical architecture to a SOA-based model using XML, SIF, WS/WSDL, and SOAP.
11. ***NEDM/NCES Handbook: Standards Adoption and Alignment***
   - Implementation of a NEDM compliant database synchronized to the current SLDS production environments for use by researchers and data analysis and for TrustEd/AEETT interactions.
   - Alignment of the state's data element definitions with the NCES Handbook.
   - Enhancing of the state's metadata management/data dictionary system to reflect resulting metadata expansion/changes.

Supporting attachments providing evidence or further detail concerning aspects of several proposed outcomes are included in Section 8. Appendix A. Letters of support, including strong endorsements for activities included in the application from Arkansas' governor, Mike Beebe

and the Directors of four state agencies with which ADE plans to collaborate in carrying out elements of the proposed work are included in Section 11. Appendix D.

(c) Timeline for Project Outcomes

The outcomes identified in Section b, above will be achieved through the joint effort of ADE's staff, its institutional and Arkansas agency partners coordinated through the ARC, and ADE's software vendors and professional services contractors in accordance with the Timeline included in this section. The Timeline provides the schedules for initiation and completion of tasks needed to achieve each of the outcomes, supporting subtasks, and the principal (underlined in Timeline) and other parties responsible for completing tasks for each outcome. The roles and responsibilities of the ARC, technical staff working in the ADE Division of Research and Technology and the SLDS PMO among which principal responsibilities are allocated in the Timeline are further described in (d) Project Management and Governance Plan, below.

Timeline			
Outcome & Resp.	Tasks and Subtasks	Start	End
1. ARC-Accelerate/Expand DDDM Programs and Researcher Engagement Resp: ARC	• Establish Multi-Agency Expanded ARC Team		
	○ Assign new ADE and multi-agency staff	May '10	May '10
	○ Establish charters defining roles and responsibilities and team functioning	May '10	Jun '10
	○ Plan and Execute Accelerated DDDM Researcher Engagement Activities		
	▪ DDDM		
	• Establish accelerated/expanded DDDM action plan	Jun '10	Sep '10
	• Carry out expansion and acceleration plan	Sep '10	Apr '13
	▪ Researcher Engagement		
	• Establish accelerated/expanded researcher engagement action plan	Jun '10	Sep '10
	• Carry out expansion and acceleration plan	Sep '10	Apr '13
2. Develop DDDM and Policy Research Collaboration Portals Resp: ARC, Div. R & T, Metis	• DDDM Portal		
	○ Identify users, develop portal plan	May '10	Jul '10
	○ Design/develop/deploy	Jul '10	Oct '10
	○ Carry out implementation/user transition activities	Oct '10	Jan '11
	○ Maintain and improve	Jan '11	Apr '13
	• Policy Research Portal		
	○ Identify users, develop portal plan	Aug '10	Nov '10
	○ Design/develop/deploy	Nov '10	Feb '11
	○ Carry out implementation/user transition activities	Feb '11	May '11
	○ Maintain and improve	May '11	Apr '13
3. Establish Teacher-Student Linkage for Evaluation of Teacher Effectiveness Resp: ARC, Div. R & T, Enspire, CELT	• Plan/design teacher link technical solution including teacher course roster validation feature	May '10	Jun '10
	• Complete Phase I solution model implementation	Jun '10	Sep '10
	• Participate in Gates Foundation Teacher-Student Link Project for Agency Leadership Pilot		
	○ Complete pilot planning phase	May '10	Jun '10
	○ Complete 3 LEA pilot implementation	Jul '10	Oct '11
	○ Define follow-on Phase II implementation strategy	Nov '11	Nov '11
	• Complete statewide implementation of Phase II solution model	Nov '11	May '13
4. Perform ADE Administrative Units Needs Assessment	• Develop scope definition, survey instruments and survey plan	May '10	Jul '10
	• Conduct survey, analyze results, and develop improvement recommendations	Jul '10	Apr '11

Timeline			
Outcome & Resp.	Tasks and Subtasks	Start	End
Resp: ARC, Div. R & T, Metis,	• Implement improvement recommendations	May '11	Mar '12
5. AEETT Resp: ARC , Div. R & T,	• AEETT Startup/Initial Operations Phase		
	○ Participate in and help complete Phase I AEETT tasks, including reports and central data mart	May '10	Jul '10
	• Ongoing Operational Phase:		
	○ Collaborate in development of Phase II AEETT plan and its implementation	Jul '10	Nov '10
	○ Participate in developing cross agency business use cases defining data-sharing needs	Nov '10	Apr '11
	○ Participate in ongoing operations, accommodating member expansion, and technology transfer/enhancement planning	Apr '11	Apr '13
	○ Participate on AEETT governance body and supply ongoing ADE support across all AEETT activities	Jul '10	Apr '13
6. Implement TrustEd Resp: ARC , Div. R & T	• Develop program technical design and governance model	May '10	Sep '10
	• Acquire tools and infrastructure and develop, configure, test and deploy TrustEd service	Sep '10	May '11
	• Begin and continue service delivery to AEETT, and maintain and improve	May '11	Dec '12
7. Implement AEETT Interoperability Architecture Resp: ARC , Metis, Consultant(s) for AEETT Interoperability	• Establish participation in NIEM, SIF, PESC standards bodies. Develop detailed interoperability roadmap, including governance model	May '10	Apr '11
	• Develop and implement initial POC using NIEM, web services, data federated approach and NIEM to SIF/PESC mapping	May '11	Apr '12
	• Develop and test expanded pilot solution consistent with AEETT exchange requirements	Apr '12	Jan '13
	• Develop plan for follow-on post-pilot implementation	Jan '13	Apr '13
8. Expand Pre-K Integration. Resp: ARC , Div. R & T	• Finalize agreement with ABC on Pre-K data sharing	May '10	Jun '10
	• Design/build interface to load ABC to SLDS and begin regular loading of ABC data	Jun '10	Sep '10
	• Identify alternative source of Pre-K data, and negotiate appropriate MOUs	Sep '10	Sep 11
	• Arrange and implement direct importation of additional Pre-K files or exchanges via AEETT	Mar '11	Mar '12
9. Implement Phase I SLDS Technical Architecture Improvements Resp: Div. R & T, DecisionEd, Rules E. Vendor, Metis, Training Vendor	• Complete architectural restructuring design and plan	May '10	Aug '10
	• Complete restructuring documentation of current environment	May '10	Aug '10
	• Complete implementation of new ODS and staging areas	Aug '10	Feb '11
	• Complete (currently IES funded) redesigned cycle certification process	Feb '11	Apr '11
	• Complete ETL redesign to schedule daily batch loads from Pentamation and other integrated systems	May '11	Jul '11
	• Acquire data quality rules engine and implement	Nov '10	Jul '11
	• Establish expanded data stewards program and train initial stewards group	May '11	Jul '11
	• Maintain and improve data stewards program	Aug '11	Apr '13
10. Implement Phase II SLDS Technical Architecture Improvements Resp: Div. R & T, Decision Ed,	• Develop Phase II technical architecture design and roadmap	May '10	Jul '10
	• eSchoolPLUS Upgrade		
	○ Develop eSchoolPLUS migration plan	Jun '10	Sep '10
	○ Acquire eSchoolPLUS license	Sep '10	Oct '10
	○ Phase 1 - SunGard Hosted Pilot Districts		
	▪ Set up/ configure 2 hosted pilot districts	Oct '10	Jan '11
	▪ Train hosted pilot districts	Jan '11	Mar '11
	▪ Go Live	Mar '11	Mar '11

Timeline			
Outcome & Resp.	Tasks and Subtasks	Start	End
SunGard, Edustructures, Metis	○ Phase 2- All Districts		
	▪ Install/configure eSchoolPLUS on ADE/DIS host	Mar '11	Jun '11
	▪ Conduct systems testing	Jun '11	Aug '11
	▪ Carry out phased parallel conversion of districts, including just in time training	Aug '11	Jan '13
	• SOA SIF/ web services solutions		
	○ Acquire/install ZIS	Oct '11	Nov '11
	○ Configure/develop initial SIF/web services integration solution	Nov '11	Jun '12
	○ Conduct SIF / web services integration testing	Jun '12	Oct '12
	○ Implement SOA SIF/web services interfaces between SLDS and other ADE systems environments and external systems	Oct '12	Apr '13
11. Implement NEDM Compliant Database and Align to NCES Handbook Resp: ARC, Metis, Consultant(s) for DB Design (NEDM)	• Complete preliminary research and establish a detailed NIEM NCES Handbook implementation plan	May '10	Oct '10
	• Complete detailed analysis and perform an ADE to NEDM and NCES Handbook data mapping, and update ADE data dictionary with mapping data	Oct '10	Jul 11
	• Design NEDM Database and implement limited POC version, assess and develop full implementation plan	Jul '11	Apr '12
	• Complete full NEDM Database implementation synchronized by SLDS production repositories for researcher use	Apr '12	Apr '13
	• Begin phased adoption of NCES Handbook definitions in SLDS production environments	Jul '11	Apr '13
Governance and Project/Program Management Resp: PMO, Metis	• Adjust governance plan to address coordination of two concurrent IES funded SLDS agendas. Complete new hires and assignment of roles. Expand and re-charter SLDS PMO and SLDS Steering Committee for expanded responsibilities	May '10	Aug '10
	• Update detailed SLDS project plans and augment SLDS team portal	May '10	Aug '10
	• Begin ongoing project management based on new integrated ADE SLDS project agenda	Aug '10	Apr '13
Evaluate Expanded SLDS Project Resp: PMO, Metis	• Plan and implement expanded Year 1 evaluation	May '10	Apr '11
	• Plan and implement expanded Year 2 evaluation	May '11	Apr '12
	• Plan and implement expanded Year 3 evaluation	May '12	Apr '13

Grant Coordination

ADE has recently established a facility, with the support of IBM, using its Cognos tools for reporting progress on the metrics established for the State Fiscal Stabilization Fund. It has in place all of the necessary systems to track all funds received and expenditures made pursuant to this IES SLDS grant separately from expenditures made pursuant to its existing IES SLDS grant awarded in 2009 and any other ARRA funds it has received or should receive, and ADE will avoid any duplication of expenditures. The scope of work described in this application and associated budget takes strict account of the distinction between the initiatives and the resources being used for the work on the proposed and existing grants. As described in the Project Management and Governance Plan, below, the work on the two grants will fall under the same governance and project management structure and in many cases will involve the use of the same individuals who will work across activities on both grants. FTE and other resource usage will be strictly separated for accounting purposes and tracked separately over the life of the two grants. Currently ADE has no plans to use any other ARRA funds to support the initiatives included in this grant application.

(d) Project Management and Governance Plan

Governance

Since its initial 2005 IES SLDS award, Arkansas has had in place a governance structure for its SLDS activities that addresses the legislative, administrative, and policy frameworks; stakeholder participation; and program and project management needed to ensure effective SLDS program delivery. Governance is fully integrated into the broad statewide governance structures through which Arkansas uses technology as a means to achieve the state's educational goals. Arkansas has assigned a senior ADE executive, James Boardman, Assistant Commissioner of the Division of Research and Technology, to the role of Project Director. In this position, he is responsible for the overall coordination of the effort, a role he has fulfilled since 2005. To ensure broad institutional support, the Project Director has created a high-level steering committee comprising institutional stakeholders from throughout the state who are called together from time to time by the Project Director and are met with individually and in groups to address specific issues where stakeholder communication and consensus building is required. To carry out the day-to-day work of planning, coordinating, and implementing the SLDS across several ADE organizational units, vendor organizations, and external stakeholders, in 2006, ADE established the ODQ and assigned an SLDS Project Manager, Neal Gibson, and other staff to this office. Since 2006, this office has acted to centrally manage the work associated with the SLDS initiative. 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 have met 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.

This basic governance and project management structure has served the project well for the last 4 years and will continue to be used, albeit with a few modifications, as the basis for managing SLDS work carried out under both the current 2009 IES grant and the new work described in this grant application. To gain tactical advantage in its delivery capability, ADE has recently centralized most of the critical technical resources responsible for the SLDS infrastructure within the Division of Research and Technology (the lead administrative unit in ADE for the SLDS, headed by James Boardman). Thus, these resources have been brought into the SLDS Program Management Office (PMO), which replaces the prior ODQ in the SLDS program management role and incorporates the re-chartered ODQ, which now fulfills a more specific function focused on data quality.

The SLDS PMO has also been restructured to reflect two major sub areas of responsibility, with each area now headed by PMO project managers. The two project managers work closely together and with the Project Director, and SLDS initiatives typically involve a great deal of the joint participation of teams in both areas. Overall, technical infrastructure responsibilities have been placed under one SLDS Project Manager who focuses on SLDS infrastructure, Cognos tool support, and data quality, working through the regular ADE Division of Research and Technology technical unit structure. The existing Project Manager focuses primarily on external partner and user-facing aspects of the SLDS project work, as well as research and development aspects of the initiative carried out through the ARC. The three Assistant Project Managers assigned to work on the current IES grant initiatives, as well as other staff members working in

the PMO, report to these two Project Managers. With the addition of two new Assistant Project Managers being requested under this grant, as well as a new Administrative Assistant, the SLDS PMO leadership team, currently consisting of five individuals, will increase to eight. Consolidation of PMO resources has resulted in a more streamlined program management process. However, ADE also convenes a wider ADE steering group, constituting the prior Data Warehouse Steering Committee (to be renamed the SLDS Steering Committee), to ensure engagement is fully maintained with all ADE division stakeholders with respect to all aspects of the work. As part of a strategic effort to achieve greater cross-agency collaboration with other Arkansas agencies around researcher engagement, data sharing, and data use for DDDM, ADE has extended the external boundaries of the SLDS PMO by beginning a formal collaboration with university partners and other state agencies by establishing the ARC. As already described, a great deal of the work proposed by ADE in this application will be carried out in the multi-institution, multiagency collaborative environment of the ARC. Although jointly managed under an ADE-ADHE compact, the ARC will function as an additional arm of the SLDS PMO for executing the work defined in this application by virtue of the leadership role that one of the SLDS Project Managers holds within the ARC. The ARC will also be regulated by agreements between ADE and its ARC partners with respect to the work conducted by IES-funded ARC positions. Section D, Appendix D contains letters of support testifying to the participation of agencies and institutions that will be party to work on the state SLDS program.

Project Management

ADE is committed to using recognized, industry standard project management process and project controls. Historically, ADE has used Metis Associates as a professional project management consulting and support resource to assist in strategic planning, maintaining formal plans, developing periodic status reports, and handling other SLDS project management support tasks. ADE will continue to use Metis for project management support for work proposed in this application to help ensure that the work is guided according to a set of Project Management Institute, Project Management Body of Knowledge (PMI PMBOK) based processes. Upon award, work outlined in the grant application timeline will be drilled down to more detailed levels and tracked through an MS Project Plan that provides a comprehensive view of milestone targets, schedules, responsibilities, and progress across the multiple outcomes-specific sub-initiatives underway at any time. Additional project tracking and other instruments will be developed and maintained to facilitate discussion and provide visibility to the status of project work, issues, and risks, as has been done in past years. Metis Associates will also conduct special research and analysis assignments pertinent to several of this application's proposed outcomes, participate in regular SLDS PMO team meetings, help facilitate discussions, record meeting minutes, and provide the PMO with updates on progress with respect to all work assigned to each of the Assistant Project Managers, for review at monthly team meetings. Recently, Metis completed work on an initial version of an SLDS team project management and collaboration portal that aggregates and centralizes information relating to all of the strands of project activity and includes project documents, links, schedules, and task and issues lists, as well as collaboration tools for improved team collaboration. Upon award, this will be expanded to address the work of the new grant as well.

ADE is mindful that with an award resulting from this application, it will be carrying out work on two concurrent IES grants that will overlap in Years 1 and 2 of the new grant period.

Although the two grant-supported work streams will be managed under the same SLDS PMO and the structure will include cross-utilization of many of the same staff members, ADE will pay special attention to the need to maintain independent accounting for the two efforts and will ensure that resources are properly apportioned among the two efforts and that commitments on both are fully carried out.

(e) Staffing

With funding supplied through the 2008 IES grant, the SLDS PMO was strengthened by the addition of two new Assistant Project Managers to provide more focused attention to each of the major project work streams outlined in ADE's 2008 SLDS grant application. In addition, ADE has made and will continue to make a major commitment of staff time and infrastructure resources from its regular budgetary funds. With the addition of the new initiatives and augmentation or acceleration of existing initiatives described in this application, ADE will require further support from IES to augment the resources devoted to SLDS work. The scope of the new work to be pursued is of considerable size and involves nearly a dozen new work streams, and some aspects of the proposed new work are at the advanced edge of emerging practice. ADE is confident, however, that through the combination of its own resources and the resources for which it is requesting new IES funding it will be able to assemble a team with all of the qualifications needed to successfully execute this work.

Project Personnel: Existing Non-Federal ADE Staff

This section highlights the qualifications, roles, and responsibilities of key individuals, along with the percent of time to be devoted in each of the 3 years of this project, including their dedication under ADE's current 2009 IES grant and the additional commitment to be made for work under the new grant being sought through this application, and the total of the two in Years 1 and 2 when the two grants overlap. Resumes for these key personnel are provided in Section 9, Appendix B of this proposal. Many of these staff are already dedicated in varying degrees to work under the current SLDS grant. Upon award, their level of dedication to SLDS work will increase as detailed here and in Section 4, Budget Information Non-Construction Program (ED 524) Section C, and Section 7, Budget Narrative (Justification).

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 policymakers, 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 the SLDS. (Dedication: current 20%, new grant 30%, total for both grants 50%.)

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. (Dedication: current 10%, new grant 20%, total for both grants 30%.)

Neal Gibson is one of the two Project Managers in the SLDS PMO who oversees the overall work of the SLDS project. Mr. Gibson also serves as the Director of the ARC. ADE has assigned another staff member to take on work related to data quality, which will make it possible for Mr. Gibson to work on new grant initiatives at 50% dedication. (Dedication: current 100% [will be reduced to 50%], new grant 50%, total for both grants 100%.)

Cody Decker is the second SLDS PMO Project Manager and Division Administrator within the Division of Research and Technology. He is responsible for the SLDS infrastructure, including the Cognos Data warehouse, and also oversees EDFacts reporting. (Dedication: current 50%, new grant 50%, total for both grants 100%.)

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. (Dedication: current 20%, new grant 20%, total for both grants 40%.)

Kathleen Crain is the Financial Applications Manager and is responsible for FMS (financial data from Pentamation and financial reporting) and financial data quality. Ms. Crain will continue to supply expertise and act as the steward for financial data. (Dedication: current 10%, new grant 20%, total for both grants 30%.)

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. (Dedication: current 20%, new grant 20%, total for both grants 40%.)

Charity Smith is the Director of Accountability for ADE and will contribute in this capacity to guiding the project. (Dedication: current 10%, new grant 15%, total for both grants 25%.)

Jeremy Kratz heads ADE's ODQ, which is responsible for web initiatives, development of data quality processes/tools, and the SLDS Triand environment, and is ADE's lead for SharePoint server and web development. (Dedication: current 0%, new grant 50%, total for both grants 50%.)

Carrie Leonard is the ADE lead for Cognos, dashboards, and scorecards. (Dedication: current 0%, new grant 75%, total for both grants 75%.)

Chris Berry is the ADE lead for Microsoft Windows and SQL server. (Dedication: current 0%, new grant 20%, total for both grants 20%.)

Melanie Bradford is a Division Leader within the Division of Research and Technology and a skilled researcher in areas such as the impact of educational technology on student achievement. (Dedication: current 0%, new grant 20%, total for both grants 20%.)

ADHE funded researchers will also be assigned to the ARC. (Dedication: current 0%, new grant 50%, total for both grants 50%.)

Greg Holland is an Assistant Manager within the SLDS PMO, and is dedicated 100% to current grant work related to cross-agency data sharing and other current initiatives. Mr. Holland has special expertise with respect to work that will occur for TrustEd and other new data-sharing initiatives described in this application. Upon award, arrangements under which some of the staff resources dedicated to new grant work will be cross utilized to work on portions of the exiting grant, and visa versa, will allow Mr. Holland to participate in some aspects of the new initiatives to which he brings unique capability. As previously stated these arrangements will be strictly controlled to maintain agreed levels of resource commitment to each grant. Although his resume has been included in Section 9, no level of dedication is being reflected here because he will not represent any net new FTE non-federal contribution to this work.

Arkansas Staff Resource Augmentation to Be Funded under the IES SLDS Grant

In addition to the key staff members identified above, upon award, ADE plans to hire two additional Assistant Project Managers in the SLDS PMO (100% dedication in all 3 years) who will report, one each, to the two current SLDS Project Managers. One new Assistant Project Manager will work to strengthen the leadership of ARC activities, specifically focusing on ensuring that the cluster of activities coordinated under the umbrella of ARC, especially the DDDM and researcher engagement initiatives already funded through the 2009 IES SLDS grant, are accelerated and expanded. This individual will also be responsible or primarily responsible for TrustEd, the new AEETT collaboration, Teacher-Student Link, Pre-K integration, the NEDM/NCES Handbook, and several other initiatives outlined in this grant application. The other Assistant Project Manager will primarily focus on strengthening the leadership of the work related to Phases I and II of the SLDS technical architecture restructuring initiative.

ADE will also fund four new positions in the ARC for staff members from the four ADE partner agencies participating in the ARC: ADHE, WFS, DHS, and DOH. The four agency staff FTEs (which will not necessarily be a single individual for a given agency and may change over time based on the evolving emphasis and needs of ARC work) will combine a mix of research and technical skills to supplement ADE staff and its consultants in conducting the range of activities assigned to the ARC. It is fully expected that these positions will become critical to the goals of the respective agencies and will be funded directly by the agencies involved at the conclusion of the 3-year grant period.

A new Administrative Assistant will be hired to assist the Project Director with organizing high-level steering committee meetings. Among other administrative duties in direct support of the PMO, the Administrative Assistant will also act as a liaison with the broader spectrum of ADE stakeholders not immediately involved in the day-to-day work of the project to ensure that the appropriate level of engagement is maintained.

Contract Personnel

Contract personnel will be used as follows:

SunGard and Edustructures. ADE will purchase consulting services from both SunGard and Edustructures as part of the work needed to implement these companies' products in the ADE

environment.

Enspire. ADE will purchase additional services from Enspire to further enhance the "Hive" web-based visual analytics tool, especially with respect to teacher-student linking.

DecisionEd. ADE will continue to use consulting support from DecisionEd to assist in integrating new elements described in this application into the Cognos data warehouse. DecisionEd 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 3 years will be necessary to carry out the several improvement and expansion initiatives described in this application that involve the Cognos 8 tools, which will involve significant changes in the systems and data structures that will interface with and supply the Cognos data warehouse.

Metis Associates. ADE will make increased use of Metis Associates, its current professional project management, management consulting, data quality, and evaluation services provider. As previously described, this will include the provision of augmented strategic planning and project management support services around the new scope of work to ensure that all new project activities are planned, managed, and controlled in an efficient and effective manner. It will also include a series of outcome-specific consultation and technical support assignments, including assisting with development of SharePoint portals with which Metis has expertise, conducting a comprehensive needs assessment for ADE administrative units, assisting with the documentation of legacy code needed for Phase I SLDS restructuring work, providing planning and technical analysis for aspects of AEETT interoperability initiative, and assisting in planning and executing aspects of the proposed NEDM database NCES handbook adoption initiatives, including the incorporation of the results of these and other standards initiatives and changes made as part of the Phase II SLDS restructuring initiative into the Arkansas data dictionary/metadata management environment. As previously described, this work will also include conducting an expanded SLDS evaluation to address project components not present in the current 2009 SLDS grant work, and to conduct a final evaluation in Year 3 of the new grant period.

Other Consulting Personnel. ADE will acquire additional services either directly or through subcontracts with its primary vendors for services related to designing and implementing the most challenging and complex aspects of the technical architecture migrations it plans to undertake, especially in areas where ADE recognizes the presence of a skills gap. This will include a special consultancy focused on expertise in NIEM and data federation, and a consultancy for NEDM expertise. It will also include services for a vendor to help train the large number of data stewards that will be recruited as part of the Phase I SLDS restructuring effort. Augmenting internal and external program and technical resources for the duration of the grant is essential if the Arkansas team is to be effective in carrying out the plan of work outlined in this application. During the programmatic and technical transitions that will occur over the life of the grant, ADE will pay close attention to proactively ensuring that a formal process of knowledge transfer is in place to ensure that specialized skills and knowledge initially brought to the project by external resources are imparted to ADE staff, thus ensuring that the advances made under IES grant funding are sustainable.

Project Narrative

Project Narrative - Appendix A, Optional Attachments

Attachment 1:
Title: **Section 8 - Appendix A - Optional Attachments** Pages: **12** Uploaded File: **Section 8 - Appendix A - Optional Attachments.pdf**

8. APPENDIX A
OPTIONAL ATTACHMENTS

SUNGARD®

SunGard Public Sector • K-12 Education • www.sungardps.com • 610-691-3616 *tel* • 610-861-9323 *fax*

Willam J. (Bill) Goff, CPA
Assistant Commissioner-Fiscal & Administrative Services
Arkansas Department of Education
101 E Capitol Ave.
Little Rock, AR 72201

November 24th, 2009

Mr. Goff,

SunGard Public Sector K12 is excited about the opportunity to continue our positive business relationship with Arkansas as they migrate to our eSchoolPLUS student information system platform.

Our company mission is to enhance the education of children by providing a highly functional web-based student information system that provides administrators, counselors, teachers, and parents with the collaborative, relevant and potent student information they need in order to have high impact with managing their students.

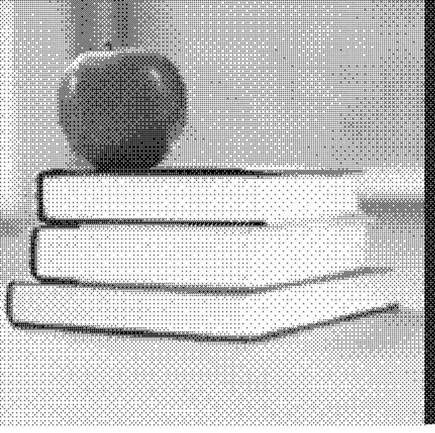
Migrating to the eSchoolPLUS platform will afford Arkansas with a system that is built from the ground up with 100% web technologies to provide an open system that is accessible, flexible and scalable. eSchoolPLUS will equip the users with the tools they need to be more effective, will provide for greater integration and will enhance to user experience with its extremely intuitive interface.

SunGard understands the significance of this project and is committed to work with the staff in Arkansas to help ensure its success. Our experienced staff will work with the team in Arkansas to provide comprehensive implementation planning, data conversions, onsite and remote training, project management and consulting services throughout this project. Another key part of this project is customer services and we will continue to provide timely assistance to support now and into the future.

Sincerely,

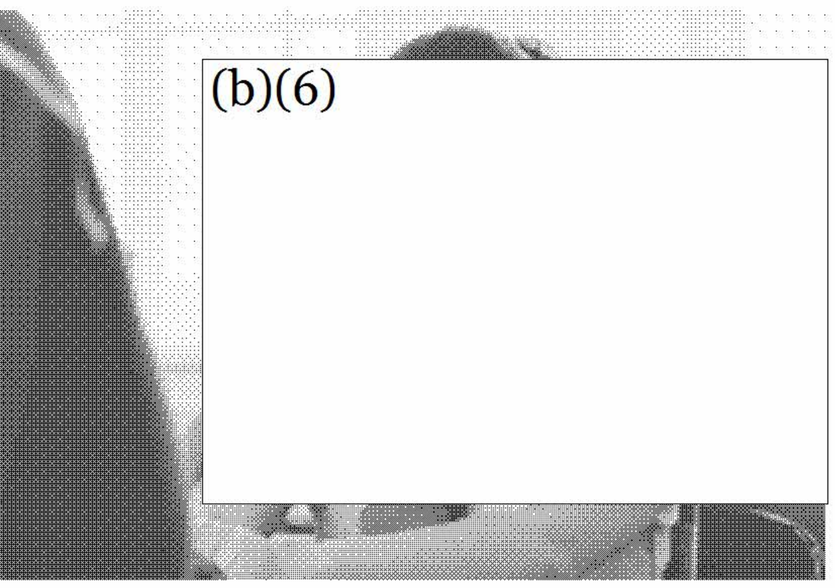
George F. Pepper
Senior Vice President Operations

SunGard Public Sector • K-12 Education • 3 West Broad Street • Bethlehem, PA 18018



SUNGARD PUBLIC SECTOR
PLUS SOLUTIONS

eSchoolPLUS
Web Student
Management Software



Student Administration

Your building or district staff can use **eSchoolPLUS** to easily manage all day-to-day student administration, processing and information. With a single complete record for each student and a single centralized database *(no data aggregation)*, you can transfer students within your district with all of their historical data. You can allow students to take courses in more than one building, and your district wide reporting and analysis is made fast and easy. Accessing student information is simple: Search for a student or a group of students with the basics like name or ID number, or use any additional criteria such as busing, address or emergency contact information. And if you need to work in a different school year, simply click on the year to switch to the desired school year (which is displayed with a different color background) without having to log out, load a different database and log back into the system.

Features:

100% Web Technology

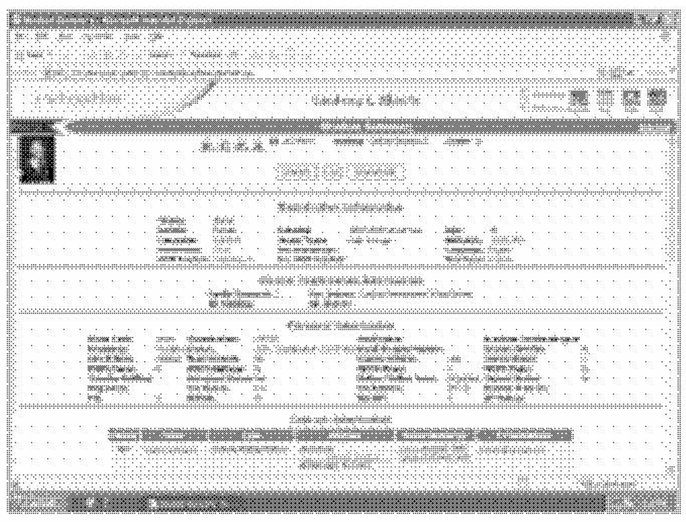
Intuitive to Use

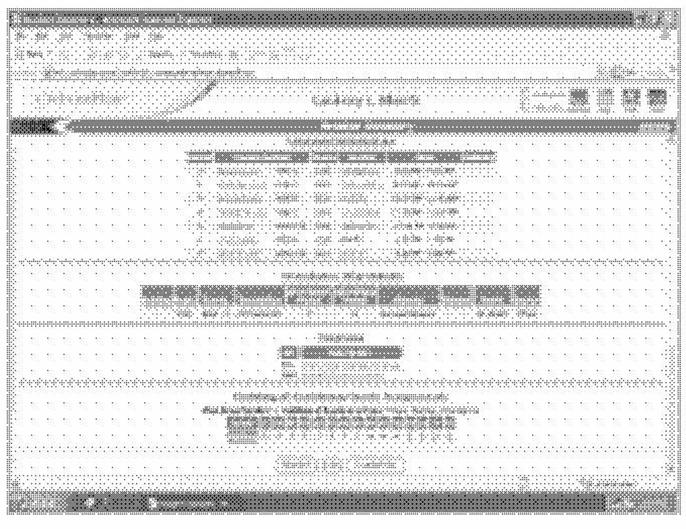
Centralized Database

Desktop Integration

Easy to Deploy

SIF Certified





Functionality

Demographics: Easily enroll or pre-register a new student, use our Geo-code feature to determine building assignment and even set up special 'Alert Messages' (medical, custodial, etc.) which appear in a pop-up window whenever anyone accesses that student's record. Track everything here from basic information, family linking, unlimited guardians and which mailing each should receive, to all of the activities a student is enrolled in and whether they are meeting your eligibility requirements. Our entry/withdrawal feature automatically tracks and provides you with a chronological view of each student's movement from building to building, or out of the district. Should the student return to your district, simply reactivate the student's record for re-enrollment. Want to add and track your district's unique additional fields or screens? No problem. Just select the option to add them through a simple process and they are immediately displayed exactly where you want them. Our demographics are comprehensive and configurable to suit your district's needs.

Scheduling: Flexible. Fast. Effective. Easily define or carry over all scheduling information such as school year calendar, teachers, rooms, marking periods, number of periods, course prerequisites, etc., to meet your unique scheduling methodologies and requirements. Choose which way you would like to enter your student course requests, either by scanning, using our course request entry screen, or allowing students and parents to enter their own requests on-line. Use our single screen walk in scheduler to generate schedules for those students who come in after the start of the school year, or for those who are hard to schedule. When running our scheduler you may want to prioritize by course, student, or any field tracked in student demographics, and use our *powerful* options to maximize your results. You can save, adjust and rerun as many versions as you would like.

Career Planner: A highly effective tool for counselors and students to develop and track the academic path for each individual student. Based on the plan choice, they can easily select from a list of appropriate courses that will meet the plan requirements allowing them to create course requests for an unlimited number of years in advance. This ensures that the student is working toward meeting all graduation requirements. In addition, through the Home Access Center, when appropriate, students and guardians can enter course requests for upcoming years and track their progress toward graduation.

Intervention Plans: Because a student's success is the primary goal of all school districts, our Student Success Plan feature provides the ability to involve administrators, teachers, parents and students in determining, successfully implementing and tracking intervention for individual student's needs. Use a number of options to identify the students in need of a plan and create goals or objectives. Administrators, teachers and parents can easily enter results for each goal or objective as often as necessary as well as quickly view the individual student's progress.

eSchoolPLUS

Attendance: Whether you take daily, class, minute or a combination of attendance types, our application can track teacher, office and a bottom line attendance entry. With unlimited arrival and dismissal times per student, we can calculate exactly how many minutes each student was in school on any given day, as well as convert that to full and half day absences. Absence codes and descriptions are defined by you, but if you have a need for any additional notes on why a student was not in attendance, we have free text available for each absence entered. Attendance can be quickly entered from the classroom through our *Teacher Access* feature or through central office staff. All of this information is stored in a full audit file for easy reference.

Discipline: Because schools are required to track more and more detailed discipline information, we provide you with an extremely comprehensive discipline solution. Simply create an incident summary and add all of those students that were involved, either as a victim, a witness, or an offender. Track all actions taken against each offender and the system knows whether to e-mail the guardian or contact based upon your district's pre-defined criteria. Because we have designed this application for even the most severe offenses you can include details such as weapons, drugs, charges and convictions.

Mark Reporting: IPR's, Honor Rolls, Rankings, Report Cards and Transcripts…it's all here. Alpha and/or numeric grades, an unlimited number of marking periods, as well as courses with alternate marking patterns. Create as many honor rolls and rank types as needed for each building. We've got you covered! Enter grades through our grade entry feature, or automatically post them from our Teacher Access gradebook or any third party gradebook system. Easily and automatically create as many Interim Progress Reports as needed with detail grades, standard comments or free text. Issue IPR reports regularly for all students or more frequently for any special criteria such as students with a failing grade or weekly athletic eligibility. Our configurable Transcript feature provides you with a complete historical record (on screen or hard copy) of each student's courses, grades and activities, as well as any additional requirements needed for graduation. You can also easily add course information from other schools for each student.

Standards and Competencies: Our Standards and Competencies application is highly flexible and multi-functional. At the elementary level you may use this application for your elementary report card, without having to create a schedule for your students. Simply define all of the competencies in which students may be assessed, and group them by subject area. You may use non-standard assessments like check marks and smiley faces for your younger grade levels and a more standard grading scale such as alpha and numeric marks for your older elementary students. Free text and/or standard 'drop down' comments can be used with each subject area. Create your report card in multiple languages and the system will check each guardian record for the language code and print in the appropriate language on each report card. At the secondary level you may tie competencies to a specific course. For example, if a student must pass an achievement test in order to complete a course requirement, you may associate that test (as a competency) to the course and require it for course completion. Use our Standards and Competencies application to meet multiple needs within your district.

Medical Records: Your school nurses can track each student's medical information from physical, dental, growth, hearing, vision and medications, to all their immunization dates. The system will even send needed immunization notification letters home based upon immunization requirements. Nurses can easily log all details regarding daily office visits and see what medications are permitted, quickly view a listing of which students are to have medications issued each day and record all medications issued. Naturally, only those individuals with the appropriate security are permitted access to medical information.

Test Scores: Keep an unlimited number of national, state and district test results for your students. Easily import results from testing agencies for each test, subtests and scores, and include detailed national, state, district, building and student averages. District personnel can quickly access or create reports to analyze information such as which buildings are scoring highest (or lowest) in what areas, how students in each building are doing this year compared to previous years, and how your students are doing compared to the rest of the state or country.

Student Fees: Your district personnel can automatically invoice and track student fees associated with courses or activities as well as other miscellaneous fees or fines. Fees can be pre-defined for individual, group or multiple fee criteria for any item such as textbooks, instructional materials and uniforms. Invoices can be automatically generated for all students or individually, manually created or printed on each student's schedule.

SUNGARD www.sungardps.com

SunGard Public Sector
3 West Broad Street
Bethlehem, PA 18018

Tel. 610-691-3616
Toll-free 866-905-8989
Fax 610-861-9323

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PR/Award # R384A100010

EDUSTRUCTURES

Mr. Jim Boardman
Assistant Commissioner – Research & Technology
Arkansas Department of Education
Four Capitol Mall, Room 301-A
Little Rock, AR 72201

Mr. Boardman:

This letter is to affirm Edustructures, (A Pearson company's) commitment to provide Enterprise Integration Solutions and Services that support the Arkansas Department of Educations 2009 IES grant application.

In early 2007, Department of Information Services (DIS) contracted with Edustructures and three of Arkansas School Districts to provide a SIF Data Integration Proof of Concept (POC) using the Schools Interoperability Framework and Edustructures SIFWorks® Zone Integration Server (ZIS).

At the conclusion of the 90-day POC, all three district IT departments and their respective personnel, unanimously reported great success with the POC and highly encouraged both DIS and ADE to move forward with the purchase of this solution.

Given the success of this earlier endeavor, it is our desire and commitment to support the Arkansas Department of Education and their Local Education Agency Data Interoperability needs.

Sincerely,

Greg Hill – State Solutions Director

metis associates
making a meaningful difference

90 Broad Street
Suite 1200
New York, NY 10004
Tel: 212-425-8833
Fax: 212-480-2176
www.metisassociates.com

November 16, 2009

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

Dear Mr. Boardman:

I am pleased 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. Metis would be proud to serve as one of ADE's key partners in the proposed project.

As you know, Metis Associates is an independent consulting firm formed in 1977 to provide human services evaluation, research, and design support to public, philanthropic, and private-sector organizations. In addition to conducting research and evaluation for schools and school systems for over thirty years, 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 four years we have been engaged in partnership with you in this work that continues to serve as a model of best practices among all of the fifty states-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 has contributed important information about the impacts it is having on teaching practices and student outcomes, while helping to further identity critical issues for the current and proposed phases of SLDS work.

In addition to the work we have doing with you on the LDS Initiative, as you know Metis recently completed a statewide outcome study of ADE's Environmental and Spatial Technology (EAST) initiative that served as a follow-up to our implementation and outcomes study that was funded by the US Department of Education's Evaluating State Education Technology program. Finally, Metis has been serving as an independent evaluator for ADE's Charter School Initiative and for the Little Rock School District on several USDOE-funded programs.

Continuing in its role of the last four years, Metis is offering to provide management consulting, component development, data quality assurance, needs assessment 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 $2,505,688.

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

Metis Associates

STATEMENT OF INDEPENDENCE

Metis Associates strongly supports a collaborative approach to evaluation that is based on active stakeholder involvement. We are also strong supporters of the professional tenets set forth by the Joint Committee on Standards of Education Evaluation (1981). In this respect, we fully acknowledge that as a key stakeholder in the Statewide Longitudinal Data Grant, we are responsible for our work to the Arkansas Department of Education (ADE) and their constituencies as well as to the United States Department of Education (USDE). As professionals, an additional, critical responsibility is to our credibility as researchers. To this end, we acknowledge that there may be an appearance of a potential conflict of interest (Joint Committee on Standards of Education Evaluation Propriety Standard P7), however we "openly and honestly" assure both the USDE and the ADE representatives that our evaluation will be thorough, useful, and while collaborative, our findings will be based solely on the data that are collected and analyzed pursuant to the published research questions and to our work plan. Furthermore, Metis has assigned separate staff to the different components of our assignment. All aspects of project management, data quality control and system development will be attended to by the Director of Special Projects and managed by the Managing Senior Associate responsible for all IT assignments, while a Senior Research Associate who directed the previous SLDS evaluation will be responsible for the formative evaluation component and will work collaboratively with our Analysis & Design unit for the execution of the outcome evaluation. Metis' Senior Vice President has been assigned to provide overall technical assistance to the project and will insure the independence referred to in this document.

DecisionEd

Mr. Jim Boardman
Assistant Commissioner-Research & Technology
Arkansas Department of Education
Four Capital Mall
Room 301-A
Little Rock, AR 72201

Mr. Boardman,

We at DecisionEd Group are excited about the opportunity to work with the Arkansas team on advancing the capabilities of the existing Data Warehouse.

We understand the significance of the work which our respective teams have worked together to define for this next phase.

The re-architecting of the warehouse loading processes will allow increased data validation and enable a much shorter time frame to place accurate, relevant data in the hands stakeholders. This change alone will result in significant staff savings, standardization of business rules for data capture, and greatly increase the accuracy of the information flowing from the districts to the Arkansas Department of Education.

As the State moves forward into the eSchoolPlus platform ensuring that the integration of the new platform occurs seamlessly is required to enable uninterrupted access to information during this transition time. As this migration occurs we are focused on ensuring the migration of data submission bridging the old and new environments.

Addressing these key areas, as well as other identified enhancements, we are excited that you have chosen to work with DecisionEd Group as your partner. Working from Specifications, through detailed design, on to deployment to enable to most cost efficient and timely path to the solution. As we have partnered with the Arkansas Department of Education in the past, we are committed to insuring success as your organization moves to the next level of using data to transform education.

To date, much has been accomplished. We are excited with the capabilities this next phase will bring to educators across the state and look forward to be a significant part of the solution.

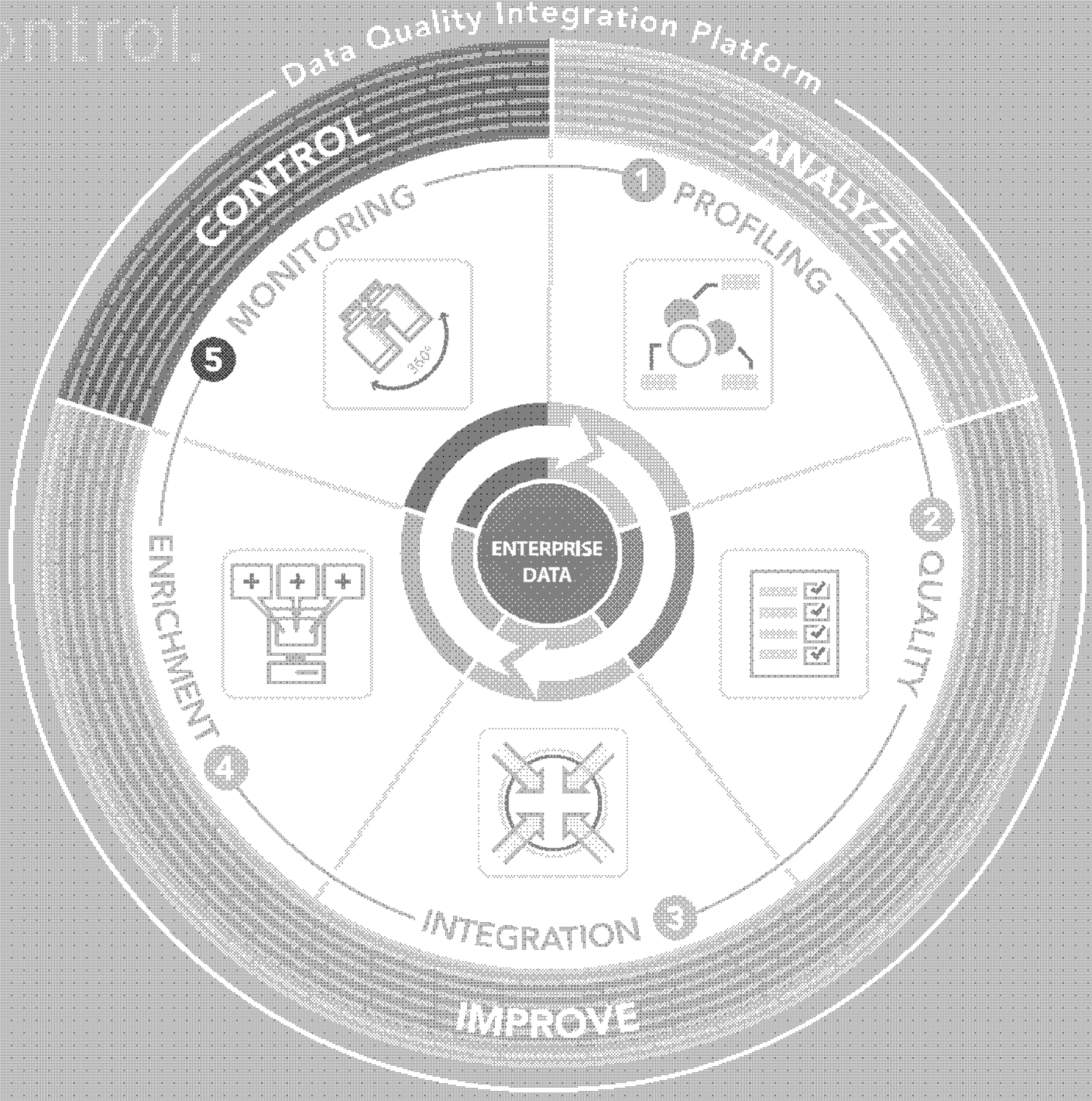
Regards,

Deborah Mason
President

DecisionEd Group, Inc
878 South Denton Tap, Suite 210, Coppell, TX 75019

The DataFlux Methodology

Analyze. Improve. Control.



Through a five-step process, the DataFlux methodology helps you analyze, improve and control data. The core components of the DataFlux methodology are:

- Data profiling:
  Inspect data for errors, inconsistencies, redundancies and incomplete information
- Data quality:
  Correct, standardize and verify data
- Data integration:
  Match, merge or link data from a variety of disparate sources
- Data enrichment:
  Enhance data using information from internal and external data sources
- Data monitoring:
  Check and control data integrity over time

DataFlux provides the foundation to understand and improve the quality of data in your organization. The result? A unified, consistent view of the entire enterprise.

DATAFLUX

PR/Award # R384A100010

The technology that powers data governance, master data management and compliance.

Each day, organizations struggle with inconsistent, inaccurate and unreliable data. To drive maximum value from data-driven efforts, you need a complete, end-to-end approach to data improvement – a core strength of the DataFlux technology platform.

DataFlux uses an in-depth methodology that encompasses people, processes and technology, helping manage customer records, product data, inventory information or transactional data – virtually any data that drives your business.

With better data, you can make better business decisions to gain a competitive edge. And, improved information increases the productivity of your information-based initiatives, such as MDM, CRM, ERP, data warehouse creation and management, compliance, and corporate data governance.

The Trusted Broker System for Data Research

Greg Holland and Neal Gibson - ARC: Arkansas Research Center - November 16, 2009

ABSTRACT:
Through a trusted broker system (TB), longitudinal student data is effectively referenced to improve entity resolution within the Department of Education (DOE). Additionally, the trusted broker system is used to facilitate FERPA-compliant collaborative research with other state agencies, such as the Department of Workforce Services (DWS).

SUMMARY:
Within DOE, multiple record linkage and entity resolution methodologies are utilized by TB to incorporate longitudinal data containing personally-identifiable information (PII) into a knowledgebase of reference information. Each student in the knowledgebase is assigned a TB unique identifier (UID) which is not derived from PII.

The record linkage and entity resolution methodologies are used continuously by DOE to enable the identification of students in any DOE file containing PII. The success rate of student identification exceeds traditional record matching, and the TB knowledgebase regularly incorporates new information from additional DOE sources. The UID may replace all PII data fields in DOE files to minimize privacy concerns.

TB is also used to facilitate collaborative research with other state agencies, such as DWS. If the collaborative research is being conducted directly by DOE, research files provided by DWS are assigned UID by TB. The DOE research team is ready to begin the study matching DWS UID to DOE data.

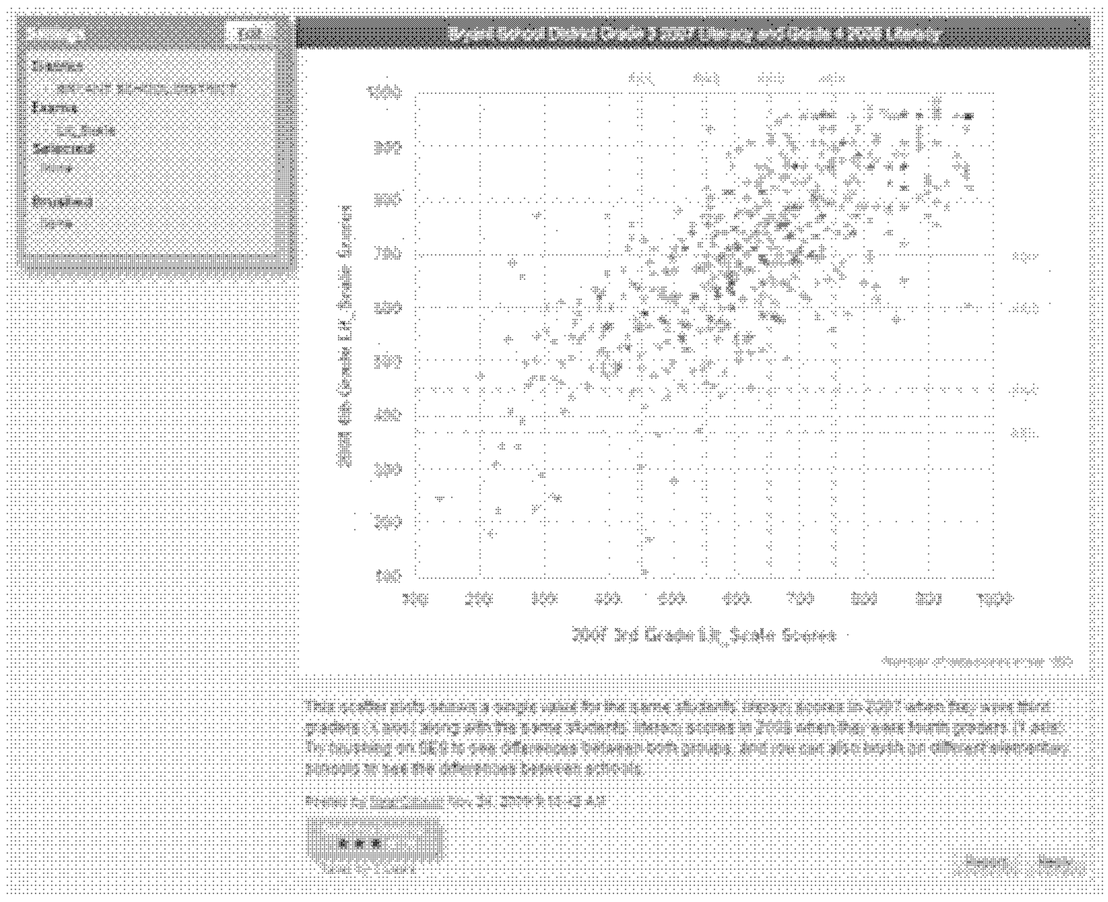
If the research is being conducted by DWS or a third-party not under management of the DOE, FERPA-compliance requires all DOE information supplied to be non-personally identifiable. This type of research is still possible with TB. DWS would supply only the PII fields for the individuals in the research sample to TB. No other DWS data is required. TB would assign a UID to each DWS individual. The UID would then be used to select DOE data of interest in the research. The selected DOE records would be supplied *in no particular order* to DWS *without PII*. The DOE record set provided to DWS represents the set of individuals requested by DWS, without divulging any PII from DOE. At this point DWS (or a third-party) would conduct the research for the DWS selected individuals with DOE record-level data which is FERPA-compliant.

DWS might also supply subgroup data values to TB for each requested individual, provided each subgroup size is greater than ten (or some acceptable minimum). TB would include these DWS subgroup values with the individual DOE records without PII, maintaining anonymity while enhancing the precision of the study results.

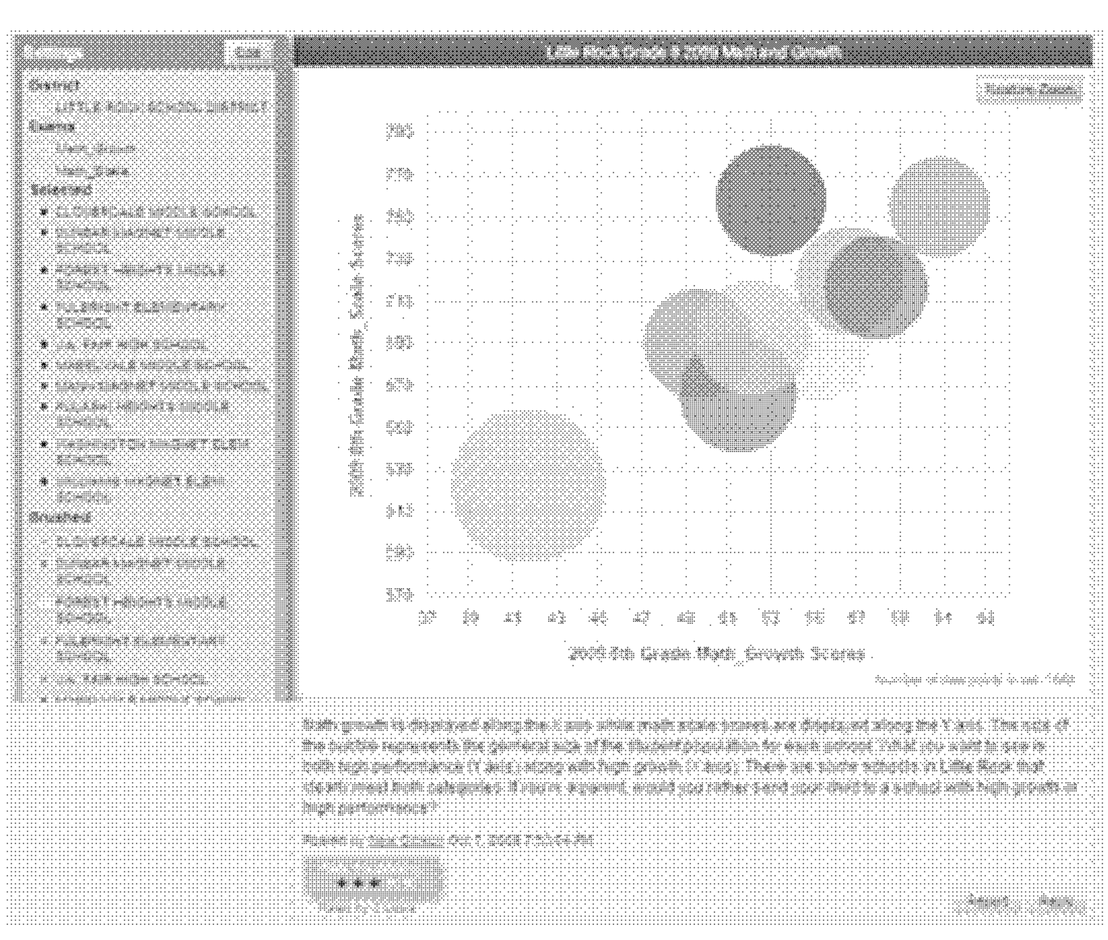
CONCLUSION:
The trusted broker system described here is FERPA-compliant, minimizes risks associated with PII, improves coverage over traditional record matching methods, and protects sensitive data for all agencies conducting collaborative research.

Hive: Interactive Data Visualization with Social Networking

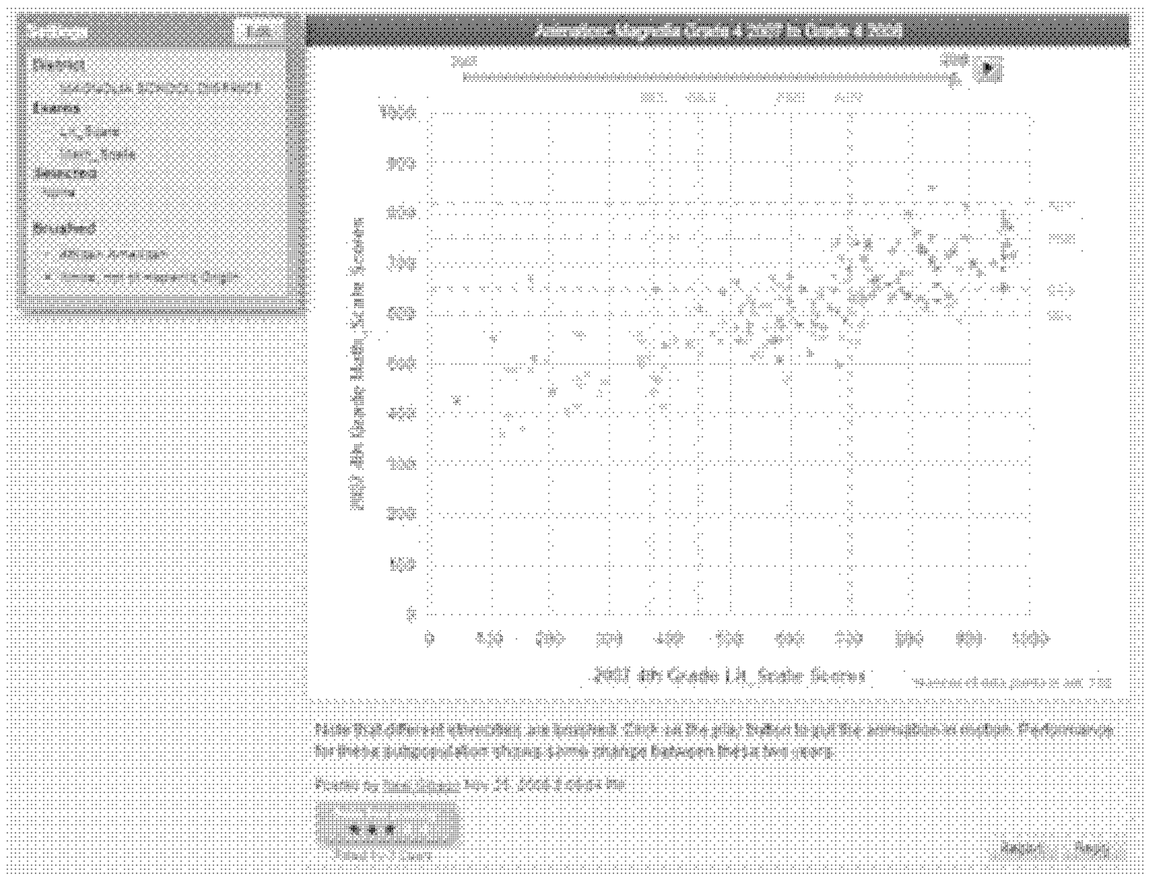
Hive is an interactive data visualization platform that brings new visualization techniques to educational data and leverages social networking to bring together educators for collaboration in an asynchronous environment. The following example shows a scatter plot combining Grade 3 2007 Literacy scores with the same students' Grade 4 2008 Literacy scores. An educator with proper authorization could see individual student names by simply placing their mouse on a point of interest. The same tools are available to the public, and the public is encouraged to use Hive, but all data at the public level is strictly anonymous.



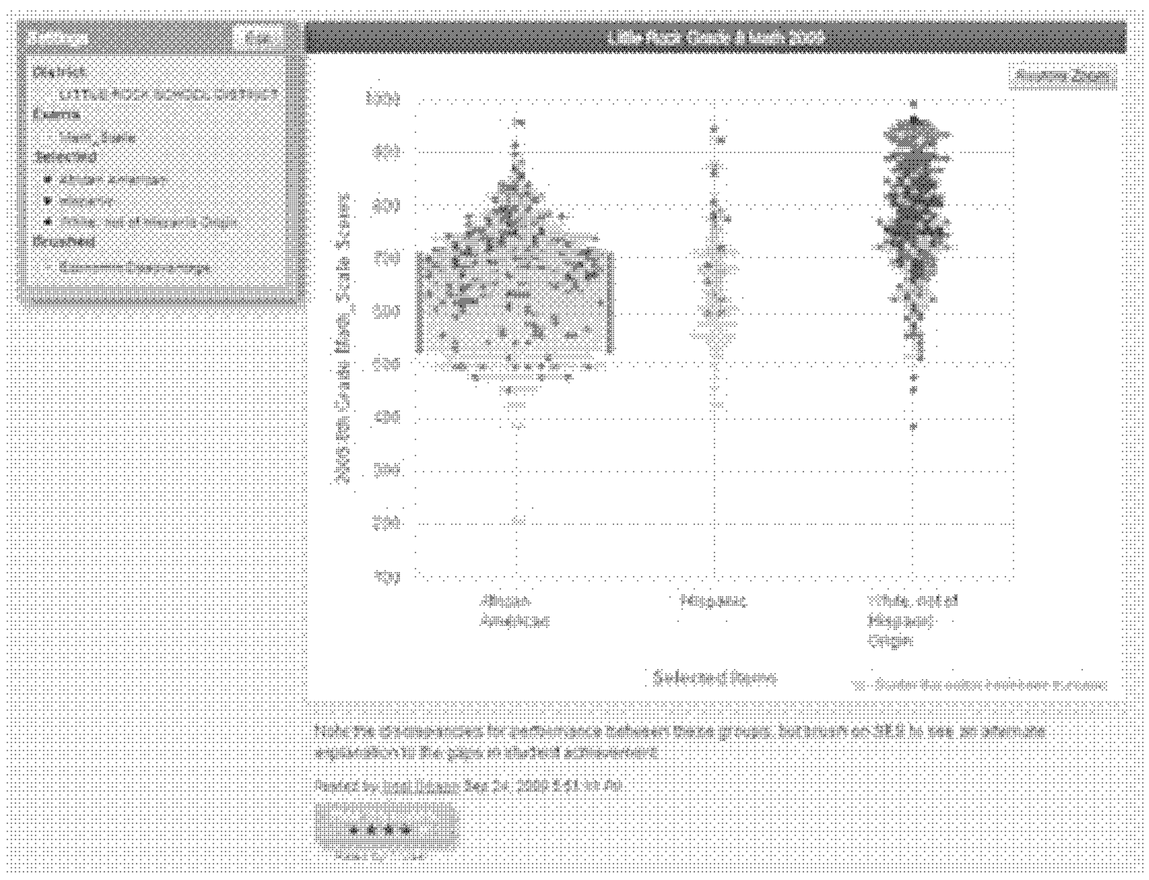
While Hive incorporates a number of different visualization, allowing educators and the public at large to view several different dimensions of student achievement, the incorporation of student growth has proven to be the most popular. The following examples shows a bubble chart of Grade 8 2009 Math scores for Little Rock schools, where average scores are on the Y axis and median growth is on the X axis. There are very clear performance differences for both growth and performance for these schools.



Hive is an open source platform that allows it be extensible and flexible. New visualizations are created as users provided input. Hive incorporates modern data visualization techniques such as brushing, drill down/drill up, and animation. In the following example, an animation of a scatter plot for math and literacy scores for a single grade allows for someone to quickly see if there is a difference between sub-populations between two years.



Our preliminary work with Hive has shown us that it is very popular with educators. They feel empowered by being able to create visualizations themselves and to quickly see different views of the same visualization through brushing and selection. We continue to receive requests to extend the visualizations down to the classroom level, which will allow multiple comparisons between teachers. It is noteworthy that teachers are especially interested in having this capability.



Project Narrative

Project Narrative - Appendix B Resumes of Key Personnel

Attachment 1:
Title: **Section 9 - Appendix B - Resumes of Key Personnel** Pages: **47** Uploaded File: **Section 9 - Appendix B - Resumes of Key Personnel.pdf**

9. APPENDIX B
RESUMES OF KEY PERSONNEL

ADE Resumes

James Gale Boardman
1907 Hutto
(b)(6)

Home: 501-327-6600 **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.

William J. (Bill) Goff, CPA

(b)(6)

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)

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*

Project Manager, Arkansas Longitudinal Data System

- 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*

Teacher/Technology Coordinator

- 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*

Teacher/Network Administrator

- 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

Greenbrier High School — *June 1991-May 1994*

Teacher

- Classroom Teacher for World History, American History, and Photography

US Navy — *October 1979 – October 1984*

- PH2, VP-19 Reconnaissance Squadron

W. Cody Decker
101 E. Capitol Suite, Suite 101
Little Rock, AR 72201
cody.decker@arkansas.gov
(501) 539-1561

PROFILE

Skilled information technology professional with master of science in information quality. Strong background in information systems and project management. Effective communicator and experienced manager with history of managing projects from conception through completion.

EDUCATION

Master of Science, Information Quality 2007
University of Arkansas at Little Rock (Honors)

Bachelor of Science, Information Science 2006
University of Arkansas at Little Rock (Magna Cum Laude)

Cisco Internetworking Academy Graduate 2002
Rich Mountain Community College

PROFESSIONAL CERTIFICATIONS

- Project Management Professional (PMP)
- Cisco Certified Network Professional (CCNP)
- Computer Technology Industry Association A+, I-Net+, Network+ and Security+
- Microsoft Certified Systems Engineer (MCSE): Security Specialization
- Microsoft Certified IT Professional: System & Enterprise Administrator

EXPERIENCE

Division Leader-Research & Technology October 2006-present
Department of Education, Little Rock, Arkansas
State Data Warehouse Coordinator and Division Leader for Data Administration, APSCN Programming, Network & Desktop Support and Data Quality Sections.

- Total data quality management approach for successful completion of data system, network and system administration projects.
- Managed projects from conception through development, planning, budgeting, and scheduling; presented program accomplishments at executive meetings.
- Led implementation of Educational Performance Management System for Statewide Information System Reporting (EPMS-SIS) and automation of K-12 reports.
- Coordinated migration of Cognos Data Warehouse business intelligent environment from legacy server systems to high-performance, redundant and virtualized architecture. Project resulted in significant monthly cost savings and system performance improvements.
- Proposed data quality improvement techniques to significantly reduce operating expenses by profiling, standardizing, cleansing and clustering data sets in State Student Report Card.
- Migrated State Department of Education from Windows NT 4.0 to Microsoft Active Directory. Directed major IT architecture upgrades, including virtualization of critical servers, implementation of iSCSI storage systems and enterprise wireless systems.
- Coordinated implementation of Microsoft SharePoint communication and content management system, including Report Management System for data requests and Technical Support/Help Desk Ticket System for technical inquiries.
- Lead policy advocate for Arkansas Public Schools IT Security Policy.
- Various positions at organization 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.
- Led 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
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

REFERENCES

Dr. Russell Bruhn, College Associate Dean

University of Arkansas at Little Rock
rebruhn@ualr.edu, 501.683.7117
Association: Former Teacher & Advisor

Dr. Ningning Wu, Assistant Professor

University of Arkansas at Little Rock
nxwu@ualr.edu, 501.683.7051
Association: Former Teacher & Advisor

Mr. James Boardman, Assistant Commissioner

Arkansas Department of Education
jim.boardman@arkansas.gov, 501.371.5005
Association: Supervisor

Mr. Bill Dirst, Program Administrator

Arkansas Department of Education
bill.dirst@arkansas.gov, 501.371.5005
Association: Colleague

(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.

Knox, Clara Denise

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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

(b)(6)

Danita Hyrkas

(b)(6)

501-682-5199 Office

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

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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 NetworkLittle 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

Ms. Emma Weems, 7218 Yorkwood Dr
Little Rock AR 72209 (501) 568-7059

Mr. Steve Colbert, 144 Marvin Fisher Rd
Beebe AR 72012 (501) 882-5322

Ms. Danita Hyrkas, ADE/APSCN ,101 E Capitol Ste 101
Little Rock AR 72201 (501) 682-4887

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.

Melanie VanZandt Bradford

(b)(6)

E mail: melanie.bradford@arkansas.gov

PROFESSIONAL RESPONSIBILITIES

- Division Leader: Research and Technology
- Development of the RFP and management of the application and selection process for the federally funded Enhancing Education Through Technology (EETT), Technology Literacy Challenge Fund (TLCF) and Goals 2000 technology grants.
- Monitoring of LEA and consortia grants implementation.
- Development of evaluation forms and site-monitoring process for educational technology programs in the 251 school districts in Arkansas.
- Management of the Enhancing Education Through Technology, Technology Literacy Challenge Fund and Goals 2000 program evaluation process, data collection, and reporting.
- Providing technical assistance to local education agencies and education service cooperatives.
- Providing information regarding educational technology grants and resources.
- Responsible for making recommendations regarding technology grants to the Governor's Office and Legislative Review Committees.
- E-Rate

HIGHLIGHTS OF QUALIFICATIONS

- Knowledge of grant administration including budget preparation.
- Administrative leadership & management.
- Computer literacy: word processing, spreadsheet, publishing, database, multi-media.
- HTML, web design, graphics software, networking and hardware.
- Facilitating technology workshops, working with educators and professionals.
- Proficiency with interactive media presentation tools.

EXPERIENCE

May, 2000 – present	Arkansas Department of Education Division Leader Research and Technology
May, 1998 – May, 2000	Arkansas Department of Education Program Administrator TLCF & Goals 2000 Information & Educational Technology
1990-1992	University of Arkansas at Little Rock College of Education Part-time Instructor
1974 - 1986	Arkansas Department of Education Curriculum Specialist - Health & Physical Education Division of Instruction
1972- 1974	Pulaski Academy Classroom Teacher - Science - 9th grade Physical Education - K-12

EDUCATION

Master of Science in Education, 1974, University of Central Arkansas.

Bachelor of Science in Education, 1972, University of Arkansas at Little Rock.

Graduate of Little Rock Central High School, 1968.

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CARI LEONARD

EMPLOYMENT

July 200 – Present **Arkansas Department of Education** **Little Rock, AR**

Data Specialist

- To provide analytical support of data collection, analysis, strategy, migration, and development of standardized metrics in an educational environment.
- Utilize multiple relational databases and data warehouse technologies to report and improve the goals of the Arkansas Department of Education.

June 2008 – June 2009 **EAST Initiative** **Little Rock, AR**

Internet Services Manager

- Managed and maintained the eastproject.org and eastinitiative.org websites
- Developed specialized website content and tools for events and activities
- Managed the website user and access databases
- Assisted in the development and coordination of promotional materials
- Assisted in the development of print materials

2006 - 2008 **EAST Initiative** **Little Rock, AR**

Technical Support- Team Lead

- Assisted over 200 schools with varying degrees of hardware, software, and networking issues
- Provided detailed tutorials for students and facilitators over troubleshooting and/or technically enhancing processes
- Managed and maintained two training labs
- Assisted in the organization of, and provided, technical assistance for annual conferences
- Assisted in the creation and maintenance of backend database for websites

2005 – 2008 **UALR College of Engineering and Information Technology** **Little Rock, AR**

Student Recruiter/Ambassador

- Recruited students for UALR
- Worked with team of ambassadors to organize series of recruitment weekends
- Managed mentoring program and relationships with incoming freshmen

EDUCATION

2004 - 2008 **University of Arkansas at Little Rock Little Rock, AR**
Information Science (BS)
- EAST Scholarship

2000 - 2004 **Dardanelle High School, AR**
High School Degree

VOLUNTEER EXPERIENCE

- Society of Women Engineers Conference and functions (2006)
- Updated United Way contact database (Summer 2005)
- Assisted in Yell County's school district maintenance and upgrade plans (Summer 2004)

COMPUTER SKILLS

- Microsoft Office
- Microsoft XP / Server 2003
- Microsoft SQL Server 2000/2005/2008
- ASP/SQL/VB.NET
- Knowledge of various software (Adobe Suite, Macromedia, etc…)

REFERENCES

- Cody Decker
  Division Administrator-Research & Technology
  Arkansas Department of Education
  cody.decker@arkansas.gov
  501.683.1417

- Katie Young
  Assistant Dean for Academic Affairs
  University of Arkansas at Little Rock
  kcyoung@ualr.edu
  501.569.8715

  Jerry Prince
  Technology Director
  EAST Initiative
  jerry@eastproject.org
  501.371.5046

28 Emerald Drive
Maumelle, AR 72113

501.416.0121
jeremy@jeremykratz.com

Jeremy Kratz

Education

Bachelor of Science – Information Science (2005)
University of Arkansas at Little Rock

- Emphasis in Web Technologies
- Minor in Digital Graphics
- Summa Cum Laude Graduate

Professional Experience

Web Project Manager (March 2009 – Present)
Arkansas Department of Education – Little Rock, Arkansas

- Developed web applications using ASP.NET, LINQ, and SQL Server
- Developed desktop applications using Cognos SDK tools
- Designed, implemented, and administered SharePoint server for ADE
- Planned and managed ADE iTunes U service

ASP.NET Software Engineer (October 2007 – March 2009)
Cranford Johnson Robinson Woods – Little Rock, Arkansas

- Developed web applications using ASP.NET, LINQ, and SQL Server
- Maintained and upgraded legacy applications developed with ASP and ASP.NET 1.1
- Worked with clients of all sizes, including Arkansas Parks and Tourism, Oaklawn Jockey Club, Park Hill Baptist Church, and El Dorado Promise

Manager of Communications (May 2006 – October 2007)
EAST Initiative, Inc. – Little Rock, Arkansas

- Directed the design and implementation of all EAST websites and applications
- Directed the branding of all EAST events
- Directed a 4-month restructuring of EAST's database and primary website
- Trained and managed a 2-person team responsible for maintaining EAST's database and websites
- Continued to work as senior web/database developer and training instructor

Senior Internet Services Developer (May 2005 – May 2006)
EAST Initiative, Inc. – Little Rock, Arkansas

- Designed, programmed, and maintained all website projects for the EAST Initiative
- Developed large-scale web applications for 12,000+ users using XHTML, CSS, ASP.NET 2.0, and Microsoft SQL Server
- Applications included user management, course management, online journaling, event registration, technical support tickets, and the integration of third-party software into an existing web portal
- Maintained and converted legacy applications developed with ASP and ASP.NET 1.1
- Took on additional responsibility in late 2005 of designing all EAST promotional materials
- Instructed training sessions for high school students in Visual Basic, Flash, Photoshop, and Dreamweaver

Skills

Programming & Markup Languages
ASP.NET, C#, VB.NET, XHTML, CSS, JavaScript, LINQ, XML, ASP, Python, Django, PHP, ActionScript, Java

Database Management Systems
Microsoft SQL Server, MySQL, SQLite, Cognos

Web Server Platforms
Microsoft IIS, Apache

Software Packages
Microsoft Visual Studio, SQL Studio, Word, Excel, Access, PowerPoint, Project, Visio, SharePoint
Adobe Photoshop, Dreamweaver, Flash, InDesign, Illustrator, Premiere, Encore

Emphasis Area
Web applications developed with ASP.NET 3.5 and SQL Server 2005

Greg Holland

(b)(6)

EDUCATION

Doctor of Philosophy in Applied Science / Information Quality
University of Arkansas at Little Rock
Degree expected May 2010

Master of Science in Information Quality
University of Arkansas at Little Rock
Degree awarded December 2007

Bachelor of Science in Computer and Information Science with minor in Mathematics
University of Arkansas at Little Rock
Degree awarded May 1998

Bryant, Arkansas High School – Valedictorian

PROFESSIONAL QUALIFICATIONS

- Personally-identifiable data analyst with experience in entity resolution, exploratory research and hygiene development, data quality evaluation, database development, and database administration for knowledgebase-driven applications.
- Proficient in individual demographic data analysis, data quality research and implementation, integrated data testing, research and data development, and web-enabled capturing and deployment of data.
- Self motivated. Critical thinker and problem solver. Comfortable in innovative, research, and development roles. Interfaces well with co-workers on high-priority projects; multi-tasks well by setting priorities and personal goals.
- Well-practiced in analysis and development of enterprise software, benchmark databases, and research and development prototypes.
- Strong financial, statistical, and business acumen.

COMPUTER SKILLS, LANGUAGES and ENVIRONMENTS

PC Skills:
Microsoft Access (expert – 12 years)
Microsoft Word (advanced)
Microsoft Excel (advanced)
Microsoft PowerPoint (proficient)
Oracle (proficient – 3 years)
Paint Shop Pro (advanced – 10 years)
SAS basic and SAS/STAT (familiarity)

Languages: SQL (advanced – 12 years), HTML (advanced – 12 years), ASP & VBScript (advanced – 10 years), C/C++ (proficient – 4 years)

Environments: Windows (all versions), Linux

Proprietary Products: Individual name hygiene analyzer, data accuracy analyzer, database-driven desktop applications

PROFESSIONAL EXPERIENCE

ARC: Arkansas Research Center **April 2009 – present**
Arkansas Department of Education
University of Central Arkansas
Conway, Arkansas

Director of Research and Development

Development of open-sourced entity resolution methodology and applications for the statewide longitudinal data system facilitating inter-agency cooperative research.

Acxiom Corporation **June 1998 – April 2009**
Little Rock, Arkansas

Data Content Analyst: Data Alliances and Licensing Team

Leading the team's assessment of information quality for incoming data sources, using proprietary tools, industry standards, and statistical methods.

Data Developer and Research Analyst: Data Product Innovation Team

Selected as one of three lead analysts on a product innovation team created by Acxiom CEO, Charles Morgan. Leading development, research, and prototyping efforts for future Acxiom data products

Data Development Team Leader: Global Data Development Business Unit

Led a team of data developers, mentoring data development functions and managing resources for technical business unit projects.

Data Developer: Global Data Development Business Unit

Led research and analysis initiatives for new and existing data sources. Developed methodologies for multiple data quality analysis programs serving Acxiom's enterprise-wide data quality toolkit. Intranet development, internet mining, and internet data compilation experience.

Database Administrator: Global Data Development Business Unit

Designed and maintained consumer reference database for use in accuracy measuring processes. Responsible for research and analysis of data sources. Intranet development.

QualChoice/QCA of Arkansas, Inc. **1997-1998**
Little Rock, Arkansas

Software Developer / Database Administrator

Designed and implemented database processes, reports, and updating guidelines. Involved in company's internet and intranet development.

IBM Global Services— Harvest Foods Project **1995-1997**
Little Rock, Arkansas

Software Developer, August 1996 – Feb. 1997
Computer Operator, Nov. 1995 – March 1997

REFERENCES

Professional and personal references available upon request.

Metis Resumes

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

Summary Dr. Simon brings 40 years of outstanding service to the field of education evaluation. Since completing his doctoral studies, which were supported by Title IV of ESEA, he has directed an array of policy and research studies and program assessments with both qualitative and quantitative features, including the use of experimental and quasi-experimental designs. Dr. Simon serves on Metis's Design Consulting Committee (DCC) and provides senior consultation for several large-scale projects. He has designed, executed, and directed many data management related projects 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. He is also the co-author of a graduate-level research textbook (Merrill/Prentice Hall, 1992, 1997, 2002, 2006).

Knowledge and Skills Social sciences, especially education; qualitative and quantitative research design; application of sound psychometric practices; management of data to inform educational administrators, teachers, policy makers, and the lay public; presentation of research outcomes in a non-technical manner

Education
Ph.D., Educational Psychology, Research Methodology, Hofstra University
M.A., Curriculum and Teaching, Teachers College, Columbia University
B.A., Elementary Education, Queens College, City University of New York (CUNY)
Permanent Certification, Director of Research, New York State Education Department

Experience

Project Support and Corporate Leadership
Dr. Simon has 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, for the past 40 years. As an officer of Metis for the last 17 years, Dr. Simon helps to increase and diversify its client base and provides leadership. Examples of Dr. Simon's leadership include the following:

- Senior Technical Advisor to the evaluation of North Carolina's High Priority Schools Initiative (authorized and funded by the North Carolina General Assembly)
- 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
- Chair of Metis's Institutional Review Board (#IRB0003465), which is certified by the Office of Human Research Protections of the U.S. Department of Health and Human Services
- Corporate Officer on Metis's DCC, which provides quality control for the appropriateness of evaluation methods and measures selected or developed for Metis projects

Program Evaluation
Dr. Simon has designed, implemented, directed, and provided technical assistance for the evaluation of federal, state, and local educational initiatives. These evaluations used both qualitative and quantitative approaches and focused on implementation and outcomes concerns. Dr. Simon has served in the following roles:

- Principal Investigator for the following evaluations, programs, and initiatives:
  - U.S. Department of Education Institute of Education Sciences (USDOE-IES)-supported evaluation of Chicago Public School's Striving Readers Initiative
  - Chicago Public School's Supported Core Reading Materials Adoption Initiative

- New York City (NYC) Department of Education's Mathematics Curriculum
- U.S. District Court-ordered evaluation of the Desegregation-Based Remedy in U.S. v. Yonkers
- Magnet Assistance Program evaluations for various NYC Districts
- English Language Arts Initiative in the Cleveland Municipal School District
- North Carolina Reading First Program
- New Jersey Math Science Partnership
- College Board's New York Education Initiative supported by the Bill & Melinda Gates Foundation
- College Board's EXCELerator Schools Initiative supported by the Bill & Melinda Gates Foundation
- Scientifically-based implementation and outcome study of Project EAST (Arkansas' state-wide technology curriculum) funded by the USDOE under its Evaluating State Education Technology Programs Initiative
- IES-supported Longitudinal Data System for Arkansas Department of Education

- Senior Advisor for the evaluation of the Enhancing Education Through Technology (EETT) Project in NYC's Region 10
- 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 NYC Board of Education Summer School, which provides instructional and support services to approximately 250,000 students per year in Grades 3–12 who fail to meet grade promotion standards

Technical Assistance

Dr. Simon provides technical assistance to local education agencies to collect, analyze, and utilize data to improve teaching and learning. He has developed systems that organize and present data in a user-friendly manner to teachers, administrators, parents, and policy makers. Examples of the technical assistance provided by Dr. Simon include:

- Developed needs assessments for schools and school districts that analyzed achievement and other student-, staff-, and school-related information
- Project Director for several national data analysis initiatives supported by the Bill & Melinda Gates Foundation
- Principal Investigator for the evaluation of the Cleveland Municipal School District Math Science Partnership
- Member of the Advisory Committee for the New Jersey Math Science Partnership
- Member of the National Advisory Committee for the Early High School Initiative Student Information System
- Provided technical assistance for the evaluation of Magnet Schools Assistance Programs, many USDOE-supported Title VII (bilingual) grants, and two USDOE-supported Technology Improvement Challenge Grants

Work History

2007–Present	Senior Vice President, Metis Associates
1992–2007	Vice President, Metis Associates
1981–1992	President, Educational Computer Resources
1992–2005	Adjunct Professor of Education, Queens College, CUNY
1984–1991	Assistant Director, Center for the Improvement of Education, and Adjunct Associate Professor of Education, Queens College, CUNY
1977–1980	Senior Research Associate, New York Institute of Technology
1972–1974	Assistant Chairman for Elementary and Early Childhood Education, Department of Education
1968–1976	Assistant Professor of Education, Queens College, CUNY
1968–1977	Executive Vice President, Teaching and 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 four 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.

In the last two years Mr. Cribben has also, worked independently as technical project manager overseeing multiple work streams within a very large multiagency human services systems integration, data federation initiative using SOA based enterprise architecture, advanced COTS and custom technology components and NIEM data exchange standards. Responsibilities have included coordination and oversight of the work of agency IT technical staff groups, and vendor firms (Accenture, KPMG, and IBM), and participation in oversight of project planning and delivery for major work streams within the larger project. Project is being deployed in an IBM, Oracle/Oracle Portal, and Weblogic, J2EE environment including use of enterprise IBM MDM (Master Data Manager) and federated FileNet image management components, also employing cross agency Enterprise Service Bus based and message brokering technologies and advanced access management and user provisioning security solutions

Previously, 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 (Certified PMP)
- Quality Assurance
- IT Planning
- Systems Management and Operations (ITL Certified)

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

- Project Management Professional Certification (PMP), Project Management Institute, since spring 2000.
- ITIL V3 Foundation Certification, January 2009.

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

Robert Harrington, M.B.A.
Managing Senior Associate

Summary Mr. Harrington manages significant professional service engagements with educational institutions, national foundations, financial intermediaries, state and local governments, and nonprofit organizations. He supervises a team comprising 12 evaluation researchers and system development professionals, and leads a wide variety of complex projects in evaluation research, development of technical information systems, and strategic planning. Mr. Harrington is a highly skilled developer of analytical databases that draw from multiple databases to support evaluation and related performance assessment. He supervises the creation of data warehouses sourced by diverse platforms including Oracle, File Maker Pro, Microsoft Access and SQL Server, and SPSS, including analytical data stores used by educational institutions and community development intermediaries.

Knowledge and Skills Evaluation research; system design, planning, and architecture; database application development; database report programming; data conversion; data warehouse design with particular emphasis on educational information databases

Education M.B.A., State University of New York at Buffalo
B.A., Economics and Political Science, University of Pennsylvania

Experience

Management and Leadership
As a Managing Senior Associate, Mr. Harrington manages a team of 12 researchers who are responsible for conducting educational research and evaluation projects in school districts and other educational settings around the country for clients such as The College Board and the New York City Department of Education. Mr. Harrington's responsibilities include:

- Ensuring the quality, integrity, rigor, and utility of all products and services to clients
- Facilitating the successful and timely completion of tasks and projects by staff
- Conducting monthly reviews of project status reports to ensure the efficient use of project resources
- Conducting bi-annual performance reviews to assess and upgrade the qualifications and skills of staff

Project Management
As the Project Manager for the Evaluation of Living Cities: National Community Development Initiative (2001–2007), which makes significant investments in the work of nonprofit community development corporations in 23 cities across the country, Mr. Harrington:

- Provided technical assistance and support
- Served as the principal investigator of a large scale evaluation of an initiative sponsored by a nonprofit consortium of 17 major financial, philanthropic, and public sector organizations committed to increasing the vitality of cities and urban neighborhoods, and improving the lives of people who live there
- Assisted with the development of an Internet-enabled information system to automate and centralize performance measurement

Database Development

Mr. Harrington leads the development of analytical database systems for schools and their funders. In this role, his responsibilities include:

- Leading the development of complex database reporting systems for clients such as the Bill & Melinda Gates Foundation
- Designing and developing analytical databases in support of school and student assessments for schools or their supporters
- Leading feasibility studies to determine how funders of educational institutions can enhance their information management capacity and practices

System Design and Development

Mr. Harrington designed and implemented numerous different case management systems deployed by workforce development intermediaries funded by national foundation clients. These systems provide comprehensive information for both program assessment and operations management. His responsibilities included:

- Managing a technical group responsible for needs analysis, file structure design, screen design, form design, technical software specifications, data conversion, staff training, and testing
- Designing extensive reporting systems using reporting programming tools such as Crystal Reports

In his system design and development work for community development organizations, Mr. Harrington:

- Conducted an extensive systems study of a national community development intermediary's information system environment and provided detailed recommendations for enhancement that specified a major system redesign and organizational restructuring
- Designed, developed, and implemented several applications for community-based organizations that provided client information, program performance, and case management services
- Provided ongoing system implementation support for the applications
- Trained information management staff in use of technical tools such as Microsoft Access and Crystal Reports

Mr. Harrington also developed an information technology plan for nonprofit organizations, that included:

- Developing a detailed information technology strategic plan for an employment program with more than 20 locations throughout the U.S., Great Britain, and Puerto Rico
- Assisting the organization with development and implementation of a national database management system

Work History

2002–Present	Managing Senior Associate, Metis Associates
1996–2002	Senior Associate, Metis Associates
1978–1996	Computer Systems Manager, NYC 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, and as a special education teacher and technology coordinator.

Knowledge and Skills

Development of project plans, project management, instrument development, report writing, focus groups and interviews, gender issues in Science Technology Engineering and Mathematics (STEM), educational technology implementation and evaluation, educational policy

Education

Ed.D., Instructional Technology and Media, concentration in Educational Policy, Teachers College, Columbia University
M.Ed., Curriculum and Instruction, specialization in Instructional Design and Technology, University of Cincinnati
B.S., Special Education, Miami University
Ohio Licensure: SBH (Severely Behaviorally Handicapped) and SLD (Specific Learning Disabilities)

Experience

Program Evaluation

Dr. Ramsey has evaluated various projects involving technology (Evaluating State Education Technology Programs [ESETP], Enhancing Technology Through Education [EETT], Preparing Tomorrow's Teachers to Use Technology [PT3], Community Technology Center [CTC], and Laptop projects), violence prevention (Safe Schools Initiative), school-based reform, institutions of higher education (FIPSE, PT3), and Title VII projects in local (NYC) and out-of-state schools and districts. She has been a member of project teams on several large-scale projects, such as a federally-funded evaluation of the State Educational Technology project in Arkansas, the evaluation of English Language Arts standards in the Cleveland Municipal School District, and the evaluation of the Core Mathematics Curriculum in NYC. Dr. Ramsey's dissertation focused on gender issues in technology in higher education. She has also completed formative and summative evaluation work using both quantitative and qualitative research methods. In her role as Senior Research Associate at Metis, Dr. Ramsey:

- Works directly with schools, state personnel, and others to develop evaluation plans
- Creates research designs, evaluation plans, interview and focus group protocols, and analysis plans, and develops instruments (including surveys) for use in the field
- Conducts interviews and focus groups, and completes data analysis and report writing
- Analyzes data from multiple sources and triangulates the results
- Develops and provides support for proposals focused on education

Dr. Ramsey has evaluated educational technologies developed for professors at Columbia University and its affiliates. She developed and administered surveys; conducted focus groups, interviews, and usability testing; performed statistical analyses, and wrote final reports based on technologies and their effective use in the classroom and beyond. Her specific responsibilities included:

- Participating in both formative and summative evaluations using quantitative and

qualitative research methods
- Working with faculty, developers, educational technologists, and students to develop and administer evaluations of programs and make recommendations for future iterations of technologies
- Serving on design teams as an evaluator/quality assurance specialist to ensure high quality and objective related products

Education Practitioner
Dr. Ramsey has worked with a team of six special education teachers and four regular education teachers in a secondary school. She has taught in self-contained severely behaviorally handicapped (SBH) classrooms, as well as in inclusionary situations supporting special education students in regular classrooms. In this role, Dr. Ramsey:

- 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 served as a member of the school and district Design Teams
- Participated in the pilot of the Reinventing Education Grant by IBM, including presenting the programs of study and progress at Aiken High School to the Ohio State Board of Education
- 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 and developed requirements and planned expansion of technology throughout the district
- Developed the technology curriculum and taught the curriculum to a team of 150 students, and developed and conducted professional development with teams of teachers

Work History

2005–Present	Senior Research Associate, Metis Associates
2003–2005	Research Associate, Metis Associates
2001–2003	Research Analyst, Metis Associates
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

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

Michael Scuello, B.A.
Senior Associate for Design and Analysis

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's internal data management and statistical analysis team and the information technology (IT) network support staff, and co-managed the IT application development staff.

Knowledge and Skills

Parametric and nonparametric analysis techniques, research methodology, database design, multi-platform file handling and conversion (Linux, MacOS, WinOS), computer hardware, operating systems, software packages, server maintenance, networking (hardware and software)

Education

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

Experience

Data Collection and Analysis
North Carolina Department of Public Instruction: High Priority Schools Initiative
Mr. Scuello managed all data and analyses for this project, in which elementary schools identified as "high priority" (i.e., low achieving) by the state department of education were provided with additional funding and support to facilitate changes in student performance. His responsibilities included:

- Gathering and consolidating datasets from the department of education's liaison
- Organizing qualitative data for analyses
- Generating a data mart to store data for multiple years of the initiative
- Identifying possible comparison schools from the statewide dataset
- Assisting in generating a comprehensive analysis plan in response to target research questions
- Conducting all demographic and statistical analyses

New York City Department of Education
Mr. Scuello has provided support for statistical analyses for a variety of individual school district and citywide initiatives, such as Title I and VII, 21st Century, American Gateways, and Summer School, as well as various curricular evaluations. He also assisted in designing and building a data mart from several years of education data; he currently manages this data mart and collects data from the department's central office on a regular basis. Mr. Scuello's other responsibilities include:

- Gathering and consolidating datasets from the city's education department
- Conducting demographic and statistical analyses
- Updating the data mart when new data are available
- Generating new queries/storage routines to handle changes in data over time
- Generating canned reports for recurring analyses

Cleveland Municipal School District
Mr. Scuello provided statistical analyses support for several initiatives, including Reading First, and for multiple evaluations of literacy programs, most of which rely heavily on

survey research and the use of more complex statistical designs such as 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. In this role, he gathers and consolidates datasets from the district and conducts demographic and statistical analyses.

Applied Research
Mr. Scuello has provided research design support and created analysis plans for a variety of individual school district and citywide initiatives for the New York City Department of Education, as well as various curricular evaluations. Mr. Scuello has also provided statistical analyses and research design support for several initiatives of the Cleveland Municipal School District, including Reading First, and for multiple evaluations of literacy programs, most of which rely heavily on survey research and the use of more complex statistical designs such as hierarchical linear modeling, regression, and factor analysis. He provides research design support and creates analysis plans, and provides technical support to staff working with the education data.

Work History

2006–Present	Senior Associate for Design and Analysis, Metis Associates
2005-2006	Senior Research Associate for Design and Analysis, Metis Associates
2002-2005	Senior Systems Associate, Metis Associates
1999-2002	Systems Associate, Metis Associates
1998-1999	Research Assistant II, Metis Associates
1998	Temporary Employment, Deutsche Bank, NA & Estee Lauder
1995-1998	Research Assistant, NASA-IRA
1994-1999	Adjunct Faculty, Department of Psychology, Brooklyn College, City University of New York
1992-1994	Caseworker, Coney Island Hospital Psychiatry Services
1987-1992	Accounts Receivable Clerk, Fab Industries

Lawrence Chau, B.B.A.
Senior Systems Associate

Summary

Mr. Chau 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 data sets and several standardized examinations (e.g., SAT-9, Regents, CTB). In the past, he has managed Metis's internal data management and statistical analysis team and is currently assisting clients with application development.

Knowledge and Skills

Database design, multi-platform file handling and conversion (Linux, MacOS, WinOS), server maintenance and networking (hardware and software), computer hardware, operating systems and software packages, parametric and non-parametric analysis techniques, research methodology

Education

B.B.A., Computer Information Systems, Bernard M. Baruch College

Experience

Application Development and Support

Mr. Chau is currently developing an application for the El Paso County, Colorado Department of Human Services to maintain and analyze Team Decision-Making (TDM) meeting information as part of the Annie E. Casey Foundation's Family to Family Initiative. This project also includes other counties on the east coast. TDM is a process for engaging families involved with Youth and Family Services. The purpose of the meeting is to share relevant information that relates to the protection and safety of children regarding placement decisions, and to reach consensus about a plan that protects the children while attempting to preserve and/or reunify the family. His specific responsibilities include:

- Designing databases to capture information about the children and meeting
- Designing data entry forms to serve the needs of meeting facilitators
- Generating meeting and child-specific reports
- Maintaining version control of the application for each site
- Assisting in customizing the TDM application as needed
- Providing phone support to meeting facilitators

Mr. Chau is also currently developing a Microsoft Access application for the Business Educating Students in Technology (BEST) internship initiative—a consortium of employers and educational institutions that provide information technology students in the greater Philadelphia area with practical experience through the use of structured internships with regional companies. His specific responsibilities include:

- Designing databases to capture surveys for students
- Designing student and internship specific reports
- Providing technical support for the application

Database Maintenance and Analysis

Mr. Chau is currently working with the United Federation of Teachers (UFT) Dial-A-Teacher program to maintain a database application that captures each telephone call for this project, which provides help over the phone. In addition, Mr. Chau has provided statistical analyses for each school year. His specific duties include:

- Gathering and consolidating datasets from the UFT office
- Conducting demographic and statistical analyses

- Providing technical support for the application
- Updating databases before schools start
- Generating canned reports for recurring analyses

Work History

2008–Present	Senior Systems Associate, Metis Associates
2004–2008	Research Associate (Systems Associate for IT staff), Metis Associates
2000–2004	Senior Research Associate (Senior System Associate for IT staff), Metis Associates
1996–2000	Research Associate (Systems Associate for IT staff), Metis Associates
1993–1996	Research Assistant II, Metis Associates
1992–1993	Research Assistant, Metis Associates

Chao Li, B.S.
Systems Associate

Summary

Mr. Li has 6 years of experience in web and database development. 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; designing and coding desktop, web-based, and database applications; and providing technical support to project managers and clients.

Knowledge and Skills

Applications programming (VB.NET, VBA, C#, C, C++, JAVA, OpenGL, 2LP, FORTRAN), web development/design (VB.NET and C# in Visual Studio 2005/2008; Java Servlet and JSP in Borland JBuilder; ASP, JavaScript, VBScript in Adobe Creative Suite; Cascading Style Sheets [CSS], XHTML/DHTML/HTML, Asynchronous JavaScript and XML [AJAX], Extensible Markup Language [XML]), database development and administration (MS SQL SERVER 2000/2005/2008, MS Access, Oracle, MySQL, FileMaker Pro), data analysis/report writing (MS SQL Server 2005/2008 Reporting Services [SSRS], MS Excel, MS Access, Crystal Reports), data transformations (ETL) tool (MS SQL Server 2000 DTS, MS SQL Server 2005/2008 Integration Services [SSIS]), scripting programming (JavaScript, VBScript, Perl, UNIX Shell Script)

Education

B.S., Computer and Information Science (Software), minor in Multimedia Computing, Brooklyn College, City University of New York
Microsoft Certified Technology Specialist, SQL Server 2005

Experience

Database and Web Development

Mr. Li developed client tracking Access database applications for the Annie E. Casey Foundation (National Tax Assistance for Working Family and Team Decision-Making), EAST Baltimore Development Inc., and World Cares Center, Inc. His tasks included:

- Designing and developing database schemas, data entry forms, and static, dynamic, and ad hoc reports in MS Access, Excel, and SSRS
- Customizing applications to meet site requirements using VBA and Jet-SQL
- Generating application testing instructions for quality assurance staff and user manuals for clients
- Packaging applications with MS Access developer edition and installing on clients' machines
- Migrating and consolidating 50+ sites' data in the format of Access, Excel, Text, etc., using SQL Server 2000 DTS
- Performing application update patches using VBA database transfer
- Maintaining application functionalities and providing help desk support for clients

Mr. Li is currently developing a web-based financial and case data tracking and reporting system in ASP.NET 3.5 for the Georgia Governor's Office for Children and Families. He is also developing a web-based activities tracking system in ASP.NET 3.5 for the Bronx Institute GEAR UP. His specific tasks include:

- Designing and developing application architectures in MS Visio and Word
- Designing application user interfaces using CSS in Visual Studio 2005/2008
- Creating user friendly and dynamic data-driven web forms using VB.NET, C#, and JavaScript in ASP.NET 2.0 and 3.5

- Performing data transformation with XML between databases via internet
- Producing application testing instructions for quality assurance staff and user manuals for clients
- Migrating applications from development servers to production servers
- Maintaining application functionalities and providing help desk support for clients
- Performing and implementing constant updates to developed applications

In addition, Mr. Li has developed numerous web-based applications for a variety of programs, including:

- A web-based activities tracking systems in ASP.NET 2.0 for the Bronx Institute GEAR UP Network and the South Bronx GEAR UP
- An AJAX-enable web-based Case Management System in ASP.NET 2.0 for the New York City Managed Care Consumer Assistance Program
- An AJAX-enable web-based survey and reporting system in ASP.NET 2.0 for Jim Casey Youth Opportunities Initiative
- A web-based data dictionary system in ASP.NET 3.5 for Arkansas Department of Education
- Various web-based surveys/reports for Jim Casey Youth Opportunities Initiative, Environmental and Spatial Technology (EAST) Initiative in Arkansas, Model United Nations, Region 10, etc., in ASP

In the area of MS SQL server development and reports, Mr. Li is currently developing web-based reporting systems for the Newark Public Schools and the Annie E. Casey Foundation's Juvenile Detention Alternatives Initiative. His specific tasks are to:

- Design data flow architectures in MS Visio and Word
- Design and develop database schemas and diagrams in SQL Server 2000/2005
- Generate SSIS packages to automate data cleaning, data migration, and data merging from SQL Server 2000/2005, Access, Excel, Oracle, FileMaker Pro, Text, etc.
- Generate web-based parameterized ad hoc reports using SSRS in SQL Server 2005
- Assign and administer user permissions to access various web-based reports
- Schedule data importing/exporting procedures with SQL Server Agent

In addition, he has:

- Developed a database repository and web-based reporting system for the Bill & Melinda Gates Foundation
- Developed and maintained the EAST Initiative data repository
- Performed data management for the NYC Department of Education database
- Administered MS SQL Server 2000/2005 at Metis Associates
- Performed general help desk and network administration support at Metis Associates
- Assisted in data analysis and reporting for the United Federation of Teachers Dial-A-Teacher

Work History

2007–Present	Systems Associate, Metis Associates
2006–2007	Systems Analyst, Metis Associates
2003–2006	Systems Assistant, Metis Associates
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 EDFacts 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.

Project Narrative

Project Narrative - Appendix C Current Status of State's Longitudinal Data System

Attachment 1:
Title: **Section 10 - Appendix C - Current Status of SLDS** Pages: **4** Uploaded File: **Section 10 - Appendix C - Current Status of SLDS.pdf**

10. Appendix C –Current Status of the State's Longitudinal Data System

Required Capabilities/Elements	Current Status and Role of IES SLDS or Other ARRA Funding	Relevant Outcomes (Section 6) that Address Capability/Elements
Seven Required Data System Capabilities		
C1. The system must enable States to examine student progress and outcomes over time, including students' preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces. Such a system must include data at the individual student level from preschool through postsecondary education and into the workforce (e.g., employment, wage, and earnings information).	***Current Status:*** **Partially Complete.** ADE has the necessary MOUs in place and has conducted matching of individual K–12 students with higher education, the state's workforce agency, and human services agencies. Work is underway to further develop and improve this capability pursuant to **ADE's 2009 IES grant award** funding, which focuses on strengthening cross-agency agreements to share and formalize use of match findings to drive policy decisions. Additional work is planned to further develop and improve this capability using funding pursuant to the **2009 IES grant competition** as a result of ADE's participation in the state's new AEETT cross-agency data-sharing initiative, and actions described in this application that will increase the number of the state's preschool children included in the SLDS.	**5. AEETT.** Establishment of and full ADE participation within a fully functional AEETT, including successful development of planned Phase I reports, and a shared online AEETT data mart. **6. TrustEd.** Development of the Trusted Broker and performance of entity resolution services for AEETT. **7. AEETT Interoperability.** Development of advanced interoperability solutions in support of AEETT cross-agency data sharing and associated data governance structures. **8. Pre-K Integration.** Conclusion of data-sharing arrangements with Arkansas' Pre-K program, the Arkansas Better Chance (ABC) program, identification/implementation of new Pre-K data sources/ matches, and use in further ARC Pre-K program research.
C2. The system must facilitate and enable the exchange of data among agencies and institutions within the State and between States so that data may be used to inform policy and practice. Such a system would support interoperability by using standard data structures, data formats, and data definitions to ensure linkage and connectivity among the various levels and types of data.	**Current Status: Not Complete.** Data are exchanged as in C1, but this capability is not yet implemented with respect to standards-based interoperability or in any significant way in transfers with other states (albeit ADE's Triand environment is itself SIF certified). Alignment to standard data structure formats and definitions will be pursued using funding pursuant to the **2009 IES grant competition**. ADE will begin major work to transition to the use of SIF, NIEM, NEDM, and the NCES Handbook to support interoperability both internally, within ADE, and in its interaction with external entities.	**7. AEETT Interoperability.** Development of advanced interoperability solutions in support of AEETT cross-agency data sharing and associated data governance structures, including data federation, SOA, and the adoption of the NIEM exchange model. Establishment of a SIF to NIEM mapping protocol, and exploration of a comparable mapping to PESC. **10. Phase II SLDS Technical Architecture Improvement.** Upgrading current Pentamation district transactional systems to SIF 2.0 compliant SunGard eSchoolPLUS. Transitioning ADE's technical architecture to a SOA-based model using XML, SIF, WS/WSDL, and SOAP. **11. NEDM/NCES Handbook.** Alignment of the state's enterprise data model and data element definitions with NEDM and the NCES Handbook and implementation of a NEDM-compliant database within the ARC.
C3. The system must link student data with teachers, i.e., it must enable the matching of teachers and students so that a given student may be matched with the particular teachers primarily responsible for providing instruction in various subjects.	**Current Status: Partially Complete.** ADE will further develop and improve this capability using funding pursuant to the **2009 IES grant competition**. ADE captures basic data needed for such linking, but its reliability is limited by the infrequency of capture and method of storage within Cognos and Triand. ADE has not developed or used this capability nor addressed policy issues for its effective implementation. It will now address technical aspects to establish this capability in full, including addressing the policy and programmatic context in which implementation occurs, working also as participants in the Gates Foundation Teacher-Student Link Project for Agency Leadership pilot.	**3. Teacher-Student Linkage.** Establishment of a process for gathering linked student, teacher, course, and assessment data from its SLDS and establishing a facility for online access and validation of class rosters by teachers. Participation in the Gates Foundation-funded Teacher-Student Link Project for Agency Leadership pilot, developing and implementing—in partnership with other state grantees and designated LEAs—a common best practice definition of teacher of record and a standard SEA business process for linking and validating teacher and student data. Implementation of these practices statewide following the pilot phase, including enhancing the state's Hive tools environment.
C4. The system must enable the matching of teachers with information about their certification and teacher preparation programs, including the institutions at which teachers received their training.	**Current Status: Partially Complete.** Capability is currently being developed using funding from **ADE's 2009 IES grant award**. ADE has previously provided a basic linkage between its Teacher Licensure System, which contains these data, and its Triand SLDS environment. ADE is currently extending this linkage to its Cognos data warehouse environment, which will result in this capability being realized. ADE is also working under its 2008 grant to integrate its three professional development systems into its SLDS, which will provide enhanced capabilities. These capabilities will be further improved by migrating to real-time SIF/WS-based data exchanges using funding pursuant to the **2009 IES grant competition**.	**10. Phase II SLDS Technical Architecture Improvement.** Upgrading current Pentamation District transactional systems to SIF 2.0 compliant SunGard eSchoolPLUS. Transitioning ADE's technical architecture to a SOA-based model using XML, SIF, WS/WSDL, and SOAP.

10. Appendix C –Current Status of the State's Longitudinal Data System

C5. The system must enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers, and school leaders on the achievement of their students.	**Current Status: Partially Complete.** Using funding from **ADE's 2009 IES grant award**, ADE is engaged in a comprehensive program to drive a culture of DDDM at all levels of the educational establishment and is building a visual tools interface (scorecards, dashboards, and visual analytics) in support of this effort, as well as adding a parent portal. ADE will augment and accelerate aspects of this effort using funding pursuant to the **2009 IES grant competition**, including building DDDM collaboration portals, making information derived from its work on student-teacher linking available to the public using its visual analytics tool "Hive," and systematically assessing information needs of ADE administrative units where there are gaps in SLDS usage.	**1. ARC: DDDM and Researcher Engagement.** Development of a Hive tools expansion, including for teacher-student links. **4. Administrative Units Needs Assessment.** Completion of a comprehensive needs assessment of SLDS needs for administrative users, and development and implementation of a plan to address these as part of the ongoing maintenance/enhancement process. **2. Development of DDDM and Researcher Collaboration Portals.**
C6. The system must ensure the quality and integrity of data contained in the system.	**Current Status: Partially Complete.** ADE is continuing to improve elements of its data quality program using funding from **ADE's 2009 IES grant award**. ADE has established an Office of Data Quality, developed and implemented major elements of a comprehensive data quality plan, and established a data stewardship program and web-based data dictionary. Its programs are now being strengthened through expansion of its data dictionary work, establishment of data quality measurement and reporting, and conducting a data quality audit. It will be further enhanced using **2009 IES grant competition** funding to greatly expand the ADE data stewards program, implement a data quality rules engine in its technical environment, and continue to improve its data dictionary metadata management environment.	**9. Phase I SLDS Technical Architecture Improvement.** Includes the acquisition of a commercial rules engine to automate data quality checking/monitoring across the SLDS environment. ADE will also implement a significantly expanded data stewards program and expand data steward training. It will expand an initiative to document business rules embedded in legacy ETL code, validate these against law and regulation, and incorporate resulting metadata into the ADE data dictionary/metadata mainframe environment. **10. Phase II SLDS Technical Architecture Improvement.** Includes introducing additional metadata into the ADE data dictionary/metadata management environment. **11. NEDM/NCES Handbook.** Includes introducing additional metadata into the ADE data dictionary/metadata management environment.
C7. The system must provide the State with the ability to meet reporting requirements of the Department, especially reporting progress on the metrics established for the State Fiscal Stabilization Fund and reporting requirements included in the *EDFacts* data collection and reporting system.	**Current Status: Substantially Complete.** ADE is currently completing work to automate EDFacts reporting from its SLDS data warehouse environment funded under an IES **2005 SLDS grant award**. ADE has established a facility, with the support of IBM, using its Cognos tools for reporting progress on the metrics established for the State Fiscal Stabilization Fund. ADE will use funding pursuant to the 2009 **IES grant competition** to improve newer aspects of federal reporting using the EMAPS tool.	**9. Phase I SLDS Technical Architecture Improvement.** Includes the automation of the EDFacts Submission Plans into the EDFacts Metadata and Process System (EMAPS) tool.
Twelve Required Data System Elements		
With respect to preschool through grade 12 education and postsecondary education		
E1. A unique statewide student identifier that does not permit a student to be individually identified by users of the system (except as allowed by Federal and State law)	**Current Status: Partially Complete.** Complete for K–12, but ADE will enhance this by addressing cross-agency translation of agency-specific UIDs (including ADE to ADHE) through AEETT and the Trusted Broker using funding pursuant to the **2009 IES grant competition**.	**6. TrustEd.** Development of confidential cross-agency TrustEd UIDs with secure mapping to agency UIDs, thus providing another layer of security to address FERPA and related prohibitions against cross-agency sharing of individually identifiable information but without interfering with cross-agency data sharing goals and objectives. **5. AEETT.** **7. AEETT Interoperability.** **8. Pre-K Integration.** Expansion of the Pre-K population in the SLDS.
E2. Student-level enrollment, demographic, and program	**Current Status: Partially Complete.** Complete for K–12, but ADE will continue to improve this capability through efforts to improve the	**5. AEETT, 6. TrustEd,** 7. **AEETT Interoperability,** and **8. Pre-K Integration.** Expanding visibility to enrollments, demographics, and

participation information	currency of information made available to SLDS users and to expand visibility to like information across the whole Pre-K to 16 spectrum. With funding from the **2009 IES grant competition**, Pre-K to 12 student data will become more current as a result of more regular updates in current vertical reporting systems and real-time updating using SIF. Through AEETT and related initiatives and further Pre-K integration, ADE will extend visibility to early childhood and postsecondary education.	program participation across the P–16 spectrum. **9. Phase I SLDS Technical Architecture Improvement.** This includes increasing the frequency of source system to SLDS updates. **10. Phase II SLDS Technical Architecture Improvement.** This will permit real-time or near real-time updates, greatly enhancing the currency and utility of information at the disposal of SLDS users.
E3. Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P–16 education programs	**Current Status: Partially Complete.** Information needed to address this element is partially captured in SLDS for K–12 students. With funding from **ADE's 2009 IES grant award** ,ADE is working as part of its overall DDDM initiative with the College and Career Readiness Policy Institute (CCRPI), and programs that include specific components to address monitoring/tracking of students pursuing nontraditional pathways to school completion. ADE will further improve this capability with respect to preschool and higher education programs through its participation in AEETT pursuant to the **2009 IES grant competition**.	**5. AEETT.** The AEETT initiative, which creates capacity to bring together data not only from higher education but many other programs to which students may be known over their educational careers, will create the basis for extending visibility to a student's movements throughout their entire K–16 experience.
E4. The capacity to communicate with higher education data systems	**Current Status: Partially Complete.** ADE is working to expand agreements and the scope of matching efforts currently carried out with higher education as funded through **ADE's 2009 IES grant award**. ADE will further improve its communication with higher education both within and external to Arkansas through AEETT and through the adoption of standards and standards mapping capabilities, especially to PESC.	**1. ARC: DDDM and Researcher Engagement.** The ARC is established as a jointly chartered/operated entity of ADE and ADHE. This outcome includes, in addition to an ADHE FTE already assigned, the addition of a new FTE from ADHE who will specifically focus on the topics of commonality to ADE and ADHE through ARC work to advance the AEETT, AEETT interoperability, and TrustEd initiatives. **5. AEETT.** This establishes the foundation, technical framework, and governance structure for greatly expanded ADE and ADHE data sharing. **6. TrustEd.** This initiative provides an essential tool for maintaining privacy in all such exchanges (though, within the ARC, ADE and ADHE sharing is not restricted by FERPA). **7. AEETT Interoperability.** This initiative involves development of advanced solutions in support of AEETT cross-agency data sharing, including addressing SIF to PESC mapping. It will create the basis for robust and widespread ADE/ADHE system-to-system interoperability.
E5. A State data audit system assessing data quality, validity, and reliability	**Current Status: Not Complete.** ADE is funded to conduct quality audits based on a data quality measurement program it will establish with support under **ADE's 2009 IES grant award**. It will also implement a data quality rules engine pursuant to the **2009 IES grant competition**. Quality auditing will be built into the cross-agency data-sharing environment.	**9. Phase I SLDS Technical Architecture Improvement.** This includes acquisition and implementation of a commercial data quality rules engine. **5. AEETT, 6.TrustEd,** 7**. AEETT Interoperability,** and **8. Pre-K Integration.** These will include a provision for quality auditing in their basic design.
With respect to preschool through grade 12		
E6. Yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965	**Current Status: Complete.**	**N/A.** No funding is being requested for this capability pursuant to the 2009 IES SLDS grant competition.
E7. Information on students not tested,	**Current Status: Complete.**	**N/A.** No funding is being requested for this capability pursuant to the

by grade and subject		2009 IES SLDS grant competition.
E8. A teacher identifier system with the ability to match teachers to students	**Current Status: Not Complete.** Teacher identifiers and the ability to link teachers to students through course rosters is present in ADE's SLDS but, as described in C3 above, ADE has not developed or used this capability. ADE will use funding pursuant to the **2009 IES grant competition** to address technical aspects of establishing this capability in full, including addressing the policy and programmatic context in which implementation occurs as participants in the Gates Teacher-Student Link Project for Agency Leadership pilot. This will also address issues related to such linkage in preschool environments.	**3. Teacher-Student Linkage.** Establishment of a process for gathering linked student, teacher, course, and assessment data from its SLDS and establishing a facility for online access and validation of class roster by teachers. Participation in the Gates Foundation-funded Teacher-Student Link Project for Agency Leadership pilot, developing and implementing—in partnership with other state Gates grantees and designated LEAs—a common best practice definition of teacher of record and a standard SEA business process for linking and validating teacher and student data. Implement these practices statewide following the pilot phase, including enhancing the state's Hive tools environment.
E9. Student-level transcript information, including information on courses completed and grades earned	**Current Status: Complete.**	**N/A.** No funding is being requested for this capability pursuant to the 2009 IES SLDS grant competition.
E10. Student-level college readiness test scores	**Current Status: Complete.** ADE captures both course-specific exams and ACT series exam scores in its SLDS. ADE has been generating the college readiness reports for the last 3 years, which is mandated by law. ADE shares both K–12 and higher education data with ACT for research on college readiness.	**N/A.** No funding is being requested for this capability pursuant to the 2009 IES SLDS grant competition.
With respect to postsecondary education		
E11. Data that provide information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework	**Current Status: Partially Complete.** ADE, in cooperation with ADHE, has pursued an aggressive strategy in examining college readiness. Since 2007, college readiness reports have been created for districts, schools, and higher education institutions. The state legislature now requires ADE and ADHE to create reports on remediation rates at the school level, as well as school-level reports concerning remediation rates and 6-year college graduation rates. With funding from **ADE's 2009 IES grant award**, ADE has begun research to determine and derive better indicators for measuring effectiveness of remediation programs. This work will be expanded and accelerated with funding pursuant to the **2009 IES grant competition**.	**1. ARC: DDDM and Researcher Engagement.** ARC researchers, using ADE and ADHE files, will focus on looking beyond ACT scores, which are the current determinant for remediation, and instead look at a full suite of indicators now available in our SLDS, including grades, AP test scores, and state End-of-Course exams. **6. TrustEd.** As part of its work on this initiative, ADE will address improving and making more accessible the historical data that have limited its ability to link (using SSN only) current college students retrospectively to ADE files, capturing data about their earlier K–12 experiences and assessment records.
E12. Data that provide other information determined necessary to address alignment and adequate preparation for success in postsecondary education	**Current Status: Not Complete.** With funding from **ADE's 2009 IES grant award**, ADE has begun research, as part of its current DDDM and researcher engagement initiatives, to better understand links between K–12 programs and success in postsecondary education. This work will be expanded and accelerated with funding pursuant to the **2009 IES grant competition**, especially through the planned expansion of ARC.	**1. ARC: DDDM and Researcher Engagement.** Through the co-location of ADE and ADHE researchers in the ARC, along with Arkansas institutional partners working in the fields of educational policy, teacher preparation, and curriculum development, Arkansas is positioning itself to bring a new level of focus—through research and resulting policy initiatives—on alignment of K–12 programs and success in post-secondary education.

Project Narrative

Project Narrative - Appendix D Letters of Support

Attachment 1:
Title: **Section 11 - Appendix D - Letters of Support** Pages: **17** Uploaded File: **Section 11 - Appendix D - Letters of Support.pdf**

11. APPENDIX D
LETTERS OF SUPPORT

STATE OF ARKANSAS
MIKE BEEBE
GOVERNOR

November 23, 2009

Dr. Tom Kimbrell, Commissioner
Arkansas Department of Education
#4 Capitol Mall
Little Rock, AR 72201

Dear Tom:

The Arkansas Department of Education is requesting a Statewide Longitudinal Data Systems grant from the U.S. Department of Education's Institute for Education Sciences.

While Arkansas currently has a nationally recognized State Longitudinal Data System, the new initiatives included in this grant request will further increase the State's commitment toward using data to improve student outcomes. The modernization and improvement of our current data system will allow us to more completely address the seven required capabilities and the twelve elements prescribed in the America COMPETES Act.

As Governor of the State of Arkansas, I wholeheartedly offer my support for this grant request and pledge the involvement of the Governor's Office toward ensuring successful completion of the activities contained in the proposal. Thank you for your serious consideration and if I can be of further assistance during the review process, please contact my office.

Sincerely,

Mike Beebe

MB:jb

STATE CAPITOL, SUITE 250 • LITTLE ROCK, AR 72201
TELEPHONE (501) 682-2345 • FAX (501) 682-1382
INTERNET WEB SITE • www.governor.arkansas.gov

Arkansas Department of Higher Education

114 East Capitol • Little Rock, Arkansas • 72201-3818 • (501) 371-2000 • Fax (501) 371-2001

Mike Beebe
Governor

Dr. Jim Purcell
Director

November 24, 2009

Dr. Tom Kimbrell
Commissioner
Arkansas Department of Education
#4 Capitol Mall
Little Rock, AR 72201

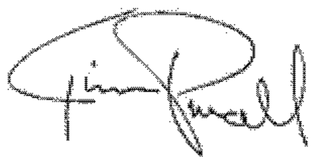
Dear Dr. Kimbrell:

The Arkansas Department of Education (ADE) is requesting a Statewide Longitudinal Data Systems grant from the U.S. Department of Education's Institute for Education Sciences. A component of the proposal is the enhancement and support of the Arkansas Education to Employment Tracking and Trends Initiative (AEETT) Initiative which was proposed by Governor Mike Beebe in August of 2009. An integral part of this initiative is a charter signed by directors of the initial participating state agencies.

The proposal submitted by the ADE will make it possible to not only speed up the implementation of the AEETT but to start adding other relevant state agencies to the process. The staffing structure included in the application will allow for additional resources to be focused on data collection and sharing between the cooperating agencies.

As the director of an involved state agency, I am writing to support this grant request and to commit my agency toward the implementation of the activities contained within the proposal.

Sincerely,



Jim Purcell, Ed.D.
Director

ARKANSAS DEPARTMENT OF HUMAN SERVICES

Office of the Director

P.O. Box 1437, Slot S-201 · Little Rock, AR 72203-1437
501-682-8650 · Fax: 501-682-6836 · TDD: 501-682-8933

November 24, 2009

Dr. Tom Kimbrell
Commissioner
Arkansas Department of Education
#4 Capitol Mall
Little Rock, AR 72201

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John Selig
Director

JS:dkc

Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000

Governor Mike Beebe

Paul K. Halverson, DrPH, FACHE, Director and State Health Officer

November 24, 2009

Dr. Tom Kimbrell
Commissioner
Arkansas Department of Education
#4 Capitol Mall
Little Rock, AR 72201

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Sincerely,

Paul Halverson, DrPH, FACHE
Director and State Health Officer

State of Arkansas
Department of
WORKFORCESERVICES

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Post Office Box 2981 • Little Rock, AR 72203-2981

Mike Beebe
Governor

Artee Williams
Director

November 23, 2009

Dr. Tom Kimbrell, Commissioner
Arkansas Department of Education
#4 Capitol Mall
Little Rock, AR 72201

Dear Tom:

The Arkansas Department of Education is requesting a Statewide Longitudinal Data Systems grant from the U.S. Department of Education's Institute for Education Sciences.

While Arkansas currently has a nationally recognized state Longitudinal Data System, the new initiatives included in this grant request will further increase the State's commitment toward using data to improve student outcomes. The modernization and improvement of our current data system will allow us to more completely address the seven required capabilities and the twelve elements prescribed in the America COMPETES Act.

As Director of the Arkansas Department of Workforce Services, I wholeheartedly offer my support for this grant request and pledge the involvement of the Director's Office toward ensuring successful completion of the activities contained in the proposal. Thank you for your serious consideration and if I can be of further assistance during the review process, please contact my office.

Sincerely,

Artee Williams

"An Equal Opportunity Employer"

Department of Information Systems
Arkansas. A State of Technology.

Project Charter

Project Name: Arkansas Education to Employment
Tracking and Trends Initiative- AEETT (Phase I)

Reference: **DIS Service Request 2010-002 GWC-AEETT**

Agency:
Arkansas Department of Career Education
Arkansas Economic Development Commission
Arkansas Department of Education
Arkansas Department of Higher Education
Arkansas Department of Workforce Services

Prepared by: Judy A. Whitaker, Senior Project Manager, PMP
Arkansas Department of Information Systems (DIS)

Date: August 31, 2009

Project Background

The Governor's Workforce Cabinet has been "charged to analyze Arkansas's current delivery of workforce development and find new and better ways to provide these services." This task force must understand the current conditions.

Currently, the state has pockets of information being collected and studied but does not have a collective effort reflecting the total picture. Data analysis has been requested to fill in the gaps from K-20 education to employment.

Oklahoma has a "Employment Outcome Report" that contains a number of Education and Employment statistical reports. This document contains excellent examples of the types of reports that would benefit Arkansas.

The success of this effort is dependent on the sharing of information across multiple state agencies and ability to match select data.

The following are some of the many questions the data analysis initiative is expected to help answer:

- What percentage of Arkansas residents and non-Arkansas residents remain in Arkansas?
- What are the education levels, degrees and skill sets of those who remain and who do not remain in Arkansas?
- What degrees, training and skill sets are needed to meet the employments needs by region today and in the future?
- What degrees and skill sets exist to attract new business to Arkansas by region?

- Need Information provided by region visually represented on an Arkansas Map view and other graphical views?

Goal

Unify Arkansas's current education, employment and workforce development statistical results to aid in providing new and better services.

Project Scope

The AEETT initiative will be developed in a phased approach.

Phase I of the initiative will include:

- Design, build and implement a Data Mart data repository containing selected education and employment data from the following agencies:
  - Arkansas Department of Higher Education
  - Arkansas Department of Education
  - Arkansas Department of Workforce Services
  - Arkansas Department of Finance and Administration (Income Tax System)
- Selected extracted files from each agency's data files will be matched and merged for the project data analysis and storage of non-identity results. Data will only be included after official documented approval from the owner of the data of each agency.
- Once completed, the data repository may be used by participating agency users for approved custom report views. Only authorized individuals may have access for ad hoc data queries and reporting.
- Identification of data sources to produce select reports
- Identification of missing data sources for select reports
- Documentation of methodology and approach for data storage and metadata
- Documentation of reports to be produced in this phase.
- Defined specifics of Phase II scope: Phase II will be to add additional agencies' information that will contribute toward the goal of this effort.

Charter Purpose

The purpose of this document is to:

- Authorize the project known as **A**rkansas **E**ducation to **E**mployment **T**racking and **T**rends Initiative (AEETT)
- Define the scope of the project
- Establish the success factors of the project
- Define the constraints, assumptions and risks
- Define the project team's roles and responsibilities
- Establish decision making authorities
- Establish project communication requirements

Project Success Factor

The **A**rkansas **E**ducation to **E**mployment **T**racking and **T**rends Initiative (AEETT) is deemed successful based on:

- A central repository of AEETT information and meta data that is useful to authorizes agencies
- Sensitive information is not accessible
- Business Objects Licenses are provided to authorized individuals
- Authorized individuals are trained for accessing custom reports and creating basic ad-hoc reporting through Business Objects.
- Data matching process is based on SSN and/or other sensitive information for linking Agency information without displaying the sensitive information.
- Information extracts and data build processes are in place for on-going rebuilds of data as required to refresh information.
- On-going access and support is fully funded and supported by participating agencies.
- At least 5 Custom reports can be produced providing statistical information representing the current education and workforce conditions.
- Reports provide information that aids in providing better ways in improving related services

Participating Stakeholders

Arkansas Department of Career Education
Arkansas Economic Development Commission
Arkansas Department of Education
Arkansas Department of Higher Education
Arkansas Department of Workforce Services

Department of Information Systems
Arkansas. A State of Technology.

Claire Bailey
Director

Mike Beebe
Governor

DIS SERVICE REQUEST

Service Request Order Number: 2010002

Master Services Agreement No.:	DIS Account No:	Service Request Term:
Multiple Agency Agreement*	0385	08/15/2009 –
System/Subsystem:	**Project No.:**	**Total Cost Estimate:**
CG51**	2AX **	$92,400 – Development $67,860 – Annual Maintenance

Project Title:

Arkansas Education to Employment Tracking and Trends Initiative (AEETT)

Customers:

Arkansas Department of Career Education
Arkansas Economic Development Commission
Arkansas Department of Education
Arkansas Department of Higher Education
Arkansas Department of Workforce Services

DIS Contact Person(s):

Claire Bailey, Director

Judy A. Whitaker, Sr. Project Manager 682-4414

All DIS services performed under this service request are governed by the terms and conditions of the Master Services Agreement referenced above and any special terms and conditions included herein.

STATEMENT OF WORK

The Governor's Workforce Cabinet has been "charged to analyze Arkansas's current delivery of workforce development and find new and better ways to provide these services." Currently, the state has pockets of information being collected and studied but does not have a collective effort reflecting the total picture. Data analysis has been requested to fill in the gaps from K-20 education to employment.

The Arkansas Education to Employment Tracking and Trends (AEETT) initiative is to identify, collect and match information to present a data analysis of Arkansas' current education to employment environment.

The AEETT project will be developed in a phased approach. Phase I of the initiative will be:

- Design, build and implement a Data Mart data repository containing selected education and employment statistical information.

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PR/Award # R384A100010

- Once completed, the data repository can be used by participating agency users to view approved customized reporting. Only authorized individuals will have access for ad hoc data queries and reporting.
- Define specifics of Phase II scope: Phase II will be to add additional reports and agencies' information that will contribute toward the goal of this effort.
- A Project Charter is included that provides more details.

RESPONSIBILITIES

- DIS will document the requirements
- The customer will review the requirements document and approve or adjust to meet their needs.
- DIS will develop the specifications to match the agreed upon requirements
- The customer will have representative(s) who will actively participate in communication; decision making and testing and deliverable approvals related to this initiative.
- All work performed under this Service Request will be performed using approved DIS Business Standards.

COST ESTIMATES

All costs outlined in this Service Request represent estimates.
Cost Estimate for Phase I Project Development is $92,400
Annual Maintenance Cost estimate to support Phase I of this effort is $67,860.

DIS item codes representing the resources to perform this request will be:

161 – Project Management
162 – Software Development
165 – Host/Server Management & Support
170 – Data Warehouse Client Access License
171 – Data Warehouse Data Mart
173 – Data Warehouse Web Access License

Customer will be responsible for actual costs incurred in the provision of the products and services outlined herein. Billing will be in accordance with the DIS rate schedule. DIS rates are subject to change.

Each agency will be assigned their own DIS billing codes for their portion of the cost.
The development cost will be covered by Department of Workforce Services. The maintenance cost breakdown for the participating agencies will be finalized before implementation.
Agency DIS billing codes will be assigned and provided after signed approval of this Service Request.

CHANGE MANAGEMENT

Customer agreement to modifications will be in writing in form of e-mail or memo until the formal agreement is modified. Changes causing increased scope, schedule or cost will be formally addressed with a Project Change Request (PCR) form.

One Capitol Mall | P.O. Box 3155 | Little Rock, AR 72203 | phone 501.682.2701 | fax 501.682.4310 | www.dis.state.ar.us

e10
PR/Award # R384A100010

TERM

The term of this Service Request will begin when this request is signed by all participating agencies.
Since this agreement covers both development and on-going maintenance there is no end date specified.

Signatures

Arkansas Department of Information Systems

Signature: Claire Bailey

Printed Name: Claire Bailey

Title: Director

Date: 8/31/2009

Arkansas Department of Higher Education

Signature:

Printed Name: Jim Purcell

Title: Director

Date: 8-31-09

Arkansas Department of Economic Development

Signature:

Printed Name: MARIA HALEY

Title: Executive Director

Date: 8-31-09

Arkansas Department of Education

Signature: Diana Julian

Printed Name: Diana Julian

Title: Interim Commissioner

Date: 8-31-09

Arkansas Department of Career Education

Signature:

Printed Name: Wayne L. "Bill" Wharton

Title: Director

Date: 8/31/09

Arkansas Department of Workforce Services

Signature:

Printed Name: Artee Williams

Title: Director

Date: 8-31-09

Attachments:

DIS GWC – AEETT Project Charter
DIS Cost Estimate – Development;
DIS Cost Estimate – Annual Maintenance;
Project Charter

One Capitol Mall | P.O. Box 3155 | Little Rock, AR 72203 | phone 501.682.2701 | fax 501.682.4310 | www.dis.state.ar.us

PR/Award # R384A100010

CELT
Center for Educational Leadership and Technology

65 West Boston Post Road
Marlborough, MA 01752
Tel (508) 624-4474
Fax (508) 624-6575

October 28, 2009

Dear Colleague:

The Center for Educational Leadership and Technology (CELT), in conjunction with its partner, Data Quality Campaign (DQC), with funding from the Bill & Melinda Gates Foundation, is pleased to provide the United States Department of Education's Institute of Education Sciences this letter of support for the Arkansas Department of Education's Longitudinal Data System Grant application. Recently, the Arkansas Department of Education was selected by the project staff to be one of five SEA/LEA pilots to participate in a national Teacher-Student Data Link Project.

The Teacher-Student Data Link Project will assist in identifying a common definition for teacher of record and ways of improving the commonality, quality, and use of the data that the states have amassed. The project will include the creation of business requirements for a prototype application teachers will use to validate their student rosters and its pilot implementation. As you will note, this project is closely aligned with IES/LDS grant requirements.

Presently, many states collect data on teachers (certification, education credentials, professional development). However, matching teachers to students at the classroom and/or subject level is critical to developing rubrics for identifying, developing, and sustaining effective teachers. With a valid teacher identifier and capacity to link teachers to student assessment results, policy and decision makers at all levels will be able to identify teacher preparation programs, staff development activities, and specific staff proficiencies and align them with the unique needs of students.

If a successful LDS grant recipient, the Arkansas Department of Education will be able to apply SEA/LEA resources, Bill & Melinda Gates Foundation funding, and IES/LDS grant funds to build a strong and replicable foundation for developing the processes, policies, applications, and data validation system for aligning teacher and student data. In exchange for supporting the Arkansas Department of Education's grant application, CELT and DQC are committed to working closely with IES to share research and best practices in the area of Teacher-Student Data Links with other LDS grantees.

We look forward to working more closely with the USDOE and the IES on a myriad of data projects that are important to our respective organizations.

Regards,

John R. Phillipo

Dr. John R. Phillipo
Chief Executive Officer

BILL & MELINDA GATES foundation

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Overview of the Teacher-Student Link Project for Agency Leadership

Context

As you know, the Bill and Melinda Gates Foundation has already begun working with your state in support of its goal to ensure that by 2025, 80 percent of students graduate from high school prepared for college. Better data systems, processes, and use are essential to inform instructional, programmatic, and policy decisions and to measure progress towards this goal and other goals. As part of its overarching effort to help states and school districts better leverage the use of longitudinal data systems, the Foundation is pursuing ways to help states to improve the collection, verification, reporting, and analysis of linked teacher and student data.

Rationale for the Project

An accurate teacher-student link serves as the linchpin for many of the most promising uses of longitudinal data—such as providing reports to teachers on student learning gains, early warning systems that identify students who are at risk of dropping out, etc. Including student achievement as a component of teacher effectiveness measures is a priority of the both the US Department of Education and the Foundation. To help ensure educators support these measures and state departments of education (SEAs) can implement them, not only must SEAs link individual teacher and student data by class enrollment, but the data must be of high quality, comparable across states, and validated by teachers. Yours is one of the minority of SEAs that currently collects data on which teachers are teaching which students via class enrollment. However, neither a common definition of *teacher of record* nor a process for SEAs to allow teachers to validate that they have been assigned to the correct students has yet been established.

The Goal

The project goal is to develop and implement a common, best practice definition of *teacher of record* and a standard SEA business process for linking and validating teacher and student data (including state assessment data) with a small group of participating states. This will improve the quality of these data and provide participating SEAs the capacity to generate longitudinal reports for educators and administrators on teacher and student attributes and performance. A longer-term goal of the project is to encourage other SEAs to adopt the common definition and business process.

The Overall Project Approach

The Foundation has invited five states—Arkansas, Florida, Georgia, Louisiana, and Ohio—to participate in this project. At least three districts in each participating state (of small, medium, and large size) will also be included in all phases of the project. The SEA will be asked to identify appropriate LEAs for inclusion.

The first phase of the project will be a detailed needs assessment of each state and its participating LEAs. The needs assessment will evaluate each state's relevant data definitions, systems, and process, and identify gaps between the current capacity/process and the project goal. A report with the findings

from the needs assessment will be produced for each state, along with a summary report that spans all five states. Following the needs assessment, the participating SEAs and LEAs will be convened to begin developing a common definition of *teacher of record* and a common business process for collecting and having teachers validate these data. Once these definitions and processes are drafted, each state will conduct a pilot implementation of them with its participating LEAs.

Collaboration across the participating states is essential to the project to ensure that a single, common definition and business process are developed. Collaboration between the SEAs and their participating pilot school districts is also essential to ensure the definition and process accurately reflect the reality at the school level and to facilitate teacher buy-in.

To implement the project, the Foundation has requested two grant proposals: one from CELT Corporation and one from the Data Quality Campaign.[1] Note: The grant proposals are pending the Foundation's grant approval process, which will occur at the end of October 2009. CELT Corporation's proposed role is to conduct the needs analysis and convene and lead the SEAs and LEAs in developing and piloting the common definition and business process. The Data Quality Campaign's proposed role is to communicate the importance of the initiative within the broader education policy context, and to disseminate project updates and deliverables to other states to facilitate broader adoption.

Anticipated Timeline and Phases of the Project

- The planning for the site visits will occur in October and November 2009
- The site visits will occur between November 2009 and March 2010
- Participating states and LEAs will be convened in April 2010 to discuss the findings of the needs assessment and commence the collaborative phase of the project
- The development of the model definition of *teacher of record* and business process for collecting and validating it will occur between April and June 2010
- The piloting of the model definition and business process will occur between July to June 2011
- Refinement of the model definition and business process based on the pilot phase will occur between July 2011 and October 2011

Benefits of Participating

Participating in this project will help SEAs make significant progress in two of the four education reform areas required by both the Race to the Top (RTTT) competitive grant program: (1) improving the collection and use of data, and (2) improving teacher effectiveness.

One of the requirements under RTTT is that SEAs define teacher effectiveness using (at least in part) the amount of academic growth a teacher's students achieve. To successfully implement such a measure, an SEA must be able to accurately identify the teacher of record for each student in each grade and subject area, and associate students' prior and current assessment results with that teacher. This project will help participating states develop both the needed data systems capacity and garner the buy in of school districts and teachers via their involvement in each phase of the work.

[1] Please see page 4 for a brief description of each organization.

In addition, participation will provide SEAs and their pilot LEAs the opportunity to work collectively with other states and districts on a common challenge – taking advantage of lessons learned and best practices, without each having to address this complex challenge individually.

The following deliverables will be created in conjunction with the participating SEAs and LEAs. All deliverables of the project will be in the public domain and disseminated via the Data Quality Campaign website and at various national data meetings.

1. SEA-specific reports on the findings of the needs analysis, with recommendations for the changes each SEA needs to make to achieve the project goal. Note: The reports will be shared with SEA and LEA staff for review before being released to any outside parties.
2. A common definition of *teacher of record*, including all required data elements and business rules for special cases (e.g., team teaching, pull outs, etc.).
3. A model business process for collecting the linked teacher-student data from LEAs, including *teacher of record*.
4. A model business process for SEAs (in collaboration with LEAs) to allow teachers to verify and correct their student rosters.
5. Business requirements for the application an SEA would use to have teachers validate the teacher rosters
6. Pilot implementation in the participating states of milestones 2-5, based on the findings from deliverable 1.

<u>What is Required of Participating SEAs and LEAs</u>

- **Leadership commitment to the goals and approach of the project:** Each participating state must be willing to collaborate with both its participating LEAs and the other participating states to develop a common definition and business process.
- **Memorandum of Understanding:** Each participating state will be required to sign a single memorandum of understanding that will describe the project goals and the role and responsibilities of the participating SEAs and LEAs.
- **Data and program staff time commitment:** The ongoing, active participation of SEA and LEA data and applicable program staff is essential to ensure the project produces deliverables that are of high quality, appropriately address the needs of both SEAs and LEAs, and can be adopted by other states.
- **Adoption:** Each participating state must be willing to adopt the common definition and business process for collecting and validating the linked teacher-student data.
- **Data Use:** Each participating state must be willing to use the linked teacher-student data to develop and disseminate reports on student performance by teacher that are designed to be resources for teachers, school administrators, and district administrators.

Organizations Submitting Proposals to Carry Out the Teacher-Student Link Project

CELT Corporation, www.celtcorp.com

For nearly two decades, CELT has helped align leadership, learning, and technology in support of improved student achievement, by working collaboratively with educational organizations to support and transform teaching, learning, and administrative processes. CELT's mission is to help learning organizations attain their vision, mission, and goals by integrating high-quality, programs, services, and technology with the organization's people and processes in a timely, efficient, and cost-effective way. For the past several years, CELT has been a leader in assessing and designing learner-centered, instructionally focused, and affordable decision support/accountability systems that are valid, reliable, and replicable at the student, classroom, school, school district, state, and federal level. In addition to helping establish data definitions and systems architecture, CELT assists with the alignment of data systems with contemporary research, best practices, proven business processes, and governance policies.

Data Quality Campaign, www.dataqualitycampaign.org

The Data Quality Campaign (DQC) is a national, collaborative effort to encourage and support state policymakers to improve the availability and use of high-quality education data to improve student achievement. The campaign provides tools and resources that help states implement and use longitudinal data systems, while providing a national forum for reducing duplication of effort and promoting greater coordination and consensus among the organizations focused on improving data quality, access and use. In March 2009 the DQC provided a 10 step action guide for states - *The Next Step: Using Longitudinal Data Systems to Improve Student Success* - to build capacity of education stakeholders to understand and use longitudinal data in effective decision making. The stimulus and other federal funding and guidance provide a strategic opportunity for states to implement these steps and align all of their data investments to ensure that data can be accessed, analyzed, used, and communicate to all stakeholders to promote continuous improvement.

Budget Narrative

Budget Narrative - Budget Justification

Attachment 1:
Title: **Section 7 - Budget Narrative (Justification)** Pages: **30** Uploaded File: **Section 7 - Budget Narrative (Justification).pdf**

7. Budget Narrative (Justification)

I. Introduction

The Arkansas Department of Education (ADE) is requesting a Statewide Longitudinal Data System (SLDS) grant in the amount of $10,379,508 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, broken out by the 11 outcomes that have been established for this 3-year project.

To introduce the outcome-based presentation of the Budget Narrative and eliminate the need to repetitively describe topics applicable to two or more of the outcomes, the Budget Narrative includes a Summary Budget Justification (Section II) that summarizes the proposed federal and non-federal expenditures in each of the three grant years. This is followed by the Budget Justification by Outcome (Section III) with sub-sections, as requested by the RFA, that correspond to the 11 outcomes outlined in the Project Narrative, Section 6b. In addition, there are three detailed budget justification sub-sections, one each for Travel, Project Management Support Services, and Evaluation. These activities and associated budgets will contribute to the achievement of the 11 outcomes; however, they are applicable across all outcome areas and/or cannot be fairly apportioned among them, so they are presented as additional standalone budget categories. A final section, Supporting Schedules (Section IV), summarizes the entire budget in a consolidated worksheet format and provides additional supporting schedules, including break out of consulting firm hours and rates where this information is known at this time. The entire Budget Narrative and its supporting schedules are reconciled to the budget presentation in Section 4 Budget Information Non-Construction Programs (ED 524)-Section C.

As noted in our previous years' applications, 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 ADE's SLDS program 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 and planned ADE partner agency and institution expenditures 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.

This Budget Narrative is focused on describing the incremental resources needed to carry out the work that is the subject of the current grant application. ADE is mindful of the fact that work that is the subject of this grant application is being carried out simultaneously with and overlaps in Years 1 and 2 with the work that is already committed to by ADE under its 2009 IES SLDS. In many cases, this work involves the participation of the same staff resources, albeit at an

increased level of effort. The Project Narrative and other sections of this application describe work that ADE is already committed to as is necessary to establish the current state of Arkansas' SLDS and clarify the new work outlined in this grant application and the relationship between resources being expended on the two grant efforts. However, the budgets and planned expenditures related to the already-awarded grant are not discussed in this Budget Narrative except where directly pertinent to the justification of work planned under this application.

II. Summary Budget Justification

1. Summary of Proposed Federal Expenditures: Years 1–3

Personnel. ADE is requesting funds to cover the salaries of seven new full-time staff members: two Assistant Project Managers, one Administrative Assistant, and four positions—one each for the four Arkansas agencies that will be collaborating in the Arkansas Research Center (ARC). ADE's request in this grant application is unique this year in that funds are being requested to cover the salary expense of four of ADE's multiagency partners who will be integrated into the work of the ARC and who are expected to greatly enrich this effort. The roles and responsibilities of these new staff members are described in Section (e) Staffing, in the Project Narrative. Salaries for these staff members will be $465,500 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 $477,138 and $489,066, respectively. These amounts and the planned utilization of these incremental staff are broken out by Outcome or Cross Outcome Categories in Section III, below. Note that here and elsewhere in this Budget Narrative all references to salaries refer to the combined salary cost of either all DOE funded (as here) or all Non Federal (as in the Summary NF section below) staff allocated to work on a particular outcome (or in this section across all outcomes). Salary expense for individuals is included in Section 4. Budget Information Non-Construction Programs (ED 524) – Section C.

Fringe Benefits. In keeping with ADE's contracting and budgeting rules, fringe benefits for the seven 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 [FTE]). Therefore, the total budget for fringe benefits in Year 1 will be $144,751. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $147,635 and $150,591, respectively. These amounts are broken out by Outcome or Cross Outcome Categories in Section III, below. As with Personnel, all fringe benefits costs presented here and elsewhere in this Budget Narrative are for combined fringe benefit costs of all staff allocated to the work being described. Fringe Benefit expense for individuals is included in Section 4. Budget Information Non-Construction Programs (ED 524) – Section C.

Travel. Under the funding provided by the 2009 IES grant—$9,500 in each year of the grant—ADE will send two representatives from the project to the annual grantee conference in Washington, D.C. In addition, these funds will be used 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, based on the expanded scope of work ADE is

seeking an additional $9,500 in each year in travel funding in the present grant. These funds will allow a greater amount of staff travel across a range of initiatives being pursued across all outcome areas. The funds will, for example, allow a greater level of participation in conferences and other gatherings and meetings around the utilization and adoption of national information and information exchange standards (i.e., NIEM, School Interoperability Framework [SIF], NEDM, and the NCES Handbook). However, in as much as this travel will address all or several of the outcome categories included in this grant, ADE is unable to fairly allocate travel among the outcomes at this time. Therefore, the entire amount is attributed to the Cross Outcome Travel Category in Section III, below, without further break out.

Equipment, Supplies, Construction, and Other. No funds are requested for equipment, supplies, construction, or other categories. Except as otherwise noted for the Edustructures ZIS, initiatives will be supported using DIS supplied or ADE supplied computer equipment.

Contractual Services. ADE proposes to enter into a number of contracts for hardware and software as well as consulting and training services for the purpose of achieving the SLDS goals described in this application. The costs in Years 1, 2, and 3 are estimated to be $1,976,598, $3,424,300, and $2,131,838. These amounts, the goods and services to be acquired, and their planned utilization are broken out by Outcome or Cross Outcome Category in Section III, below.

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. Indirect costs will be $259,635 in Year 1, $405,857 in Year 2, and $278,099 in Year 3. These amounts are broken out by Outcome or Cross Outcome Categories in Section III, below.

Total Costs. Total federally funded costs for work proposed in this application are estimated to be $2,855,984 in Year 1, $4,464,430 in Year 2, and $3,059,094 in Year 3.

*2. **Proposed Non-Federal Expenditures: Years 1–3***

Personnel. To carry out the scope of work proposed in this application, ADE will devote the equivalent of 4.25 FTEs in in-kind staff resources from among its regular salaried ADE staff. This includes a portion of the time of the SLDS Project Director, the current SLDS Project Managers, and an allocation of the time of several other ADE staff members as appropriate to their roles and expertise. Details regarding the specific staff members who will be providing in-kind support are provided in Section (e) of the Proposal Narrative and further supplemented with information in the resumes included in Section 9. The cost of the in-kind staff resources that will be directed specifically at the incremental work associated with the outcomes described in this grant application will total $298,300 in Year 1, $305,758 in Year 2, and $313,401 in Year 3, also reflecting a 2.5% annual salary adjustment. These amounts are broken out by Outcome or Cross Outcome Categories in Section III, below.

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 3-year grant period. The budget for fringe benefits will be $91,769 in Year 1, $93,617 in Year 2, and $95,511 in Year 3. These amounts are broken out by Outcome or Cross Outcome Categories in Section III, below.

Travel. ADE will expend $5,400 in in-kind funds for travel associated with the work of this grant, an amount likewise equal to the ADE non-federal travel contribution in the current IES grant.

Equipment, Supplies, Construction, and Other. No funds are requested for equipment, supplies, construction, or in other categories.

Contractual Services. The purposed non-federal funded contract services costs to be incurred as a result of the work included in this grant application will consist of Arkansas's purchase of software licenses from SunGard for eSchoolPLUS and related modules, and incremental expenditures for the purchase of data processing and consulting support from the Arkansas Department of Information Systems (DIS) to support several of the outcomes described in the application. These amounts are anticipated to be $1,632,481 in Year 1, $830,250 in Year 2, and $1,162,000 in Year 3. These amounts and the associated services to be provided are broken out by Outcome in Section III, below.

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 $202,795 in Year 1, $123,502 in Year 2, and $157,631 in Year 3. These amounts are broken out by Outcome or Cross Outcome Categories in Section III, below.

Total Costs. Total non-federally funded costs for work proposed in this application are estimated to be $2,230,745 in Year 1, $1,358,527 in Year 2, and $1,733,943 in Year 3.

III. Budget Justification by Outcome

1. ARC: DDDM and Researcher Engagement

Proposed Federal Expenditures: Years 1–3

Personnel. For this outcome, ADE will expend the equivalent of 0.98 FTEs in Year 1, 1.12 FTEs in Year 2, and 1.05 FTEs in Year 3. Salaries for these staff members will be $65,170 in Year 1, $76,342 in Year 2, and $73,360 in Year 3. This outcome is defined as an acceleration and expansion of effort dedicated to work already planned and being pursued through the current IES grant related to DDDM and researcher engagement, rather than distinct new work. This amount represents the incremental resources that will be applied to achieve the acceleration and expansion of this effort.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits will be $20,265 in Year 1, $23,622 in Year 2, and $22,589 in Year 3.

Indirect Costs. The indirect costs will be $8,544 in Year 1, $9,996 in Year 2, and $9,595 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $93,979 in Year 1, $109,960 in Year 2, and $105,543 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. For this outcome, ADE will expend the equivalent of 0.34 FTEs in Year 1, 0.43 FTEs in Year 2, and 0.51 FTEs in Year 3. Salaries for these staff members will be $23,864 in Year 1, $30,576 in Year 2, and $37,608 in Year 3. As indicated, this work is already being pursued by staff funded under the current IES SLDS grant, including the ADE PMO Project Manager and Assistant Project Manager hired under the current grant. The augmentation of these efforts through the addition of these incremental ADE in-kind staff resources will allow this work to proceed on a more intensive level and at an accelerated pace. Resources at the University of Arkansas at Little Rock (UALR) Office of Educational Policy are also collaborating as part of the ARC researcher engagement effort. However, this involvement was already envisioned in the 2008 IES grant application, and although it is expected that there will be an increased level of effort as a result of the intensification of the work of the ARC, this increase is difficult to quantify and, therefore, has not been added to the non-federal budget.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $7,341. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $9,362 and $11,461, respectively.

Indirect Costs. The indirect costs will be $3,121 in Year 1, $3,994 in Year 2, and $4,907 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $34,326 in Year 1, $43,931 in Year 2, and $53,976 in Year 3.

2. Development of DDDM and Researcher/Policy Development Collaboration Portals

Proposed Federal Expenditures: Years 1–3

Personnel. For this outcome, ADE will expend the equivalent of 0.35 FTEs in Year 1, 0.21 FTEs in Year 2, and 0.14 FTEs in Year 3. Salaries for these staff members will be $23,275 in Year 1, $14,314 in Year 2, and $9,781 in Year 3. This outcome is focused on supporting the promotion of DDDM and targeted research based on the use of SLDS resources and its use in policy development through the development of a DDDM and Researcher/Policy Development Collaboration Portals. This outcome will directly complement the acceleration and intensification of work described in Outcome #1 and serve as an important tool for advancing that effort. This work will involve a collaboration of staff working with external users on the content of these portals in the ARC, which is accounted for here, as well as ADE technical staff in the Division of Research and Technology and assigned to the SLDS PMO who have skills in

the use of MS SharePoint technologies, which is accounted for in the non-federal section of this outcome, described below.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $7,238. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $4,429 and $3,012, respectively.

Contractual Services. To assist in the effort that will use SharePoint Portal Services, ADE will utilize consulting support from **Metis Associates**, who has expertise in this field. This will involve costs of $50,000 in Year 1, $52,500 in Year 2, and $0 in Year 3.

Indirect Costs. The indirect costs will be $8,051 in Year 1, $7,124 in Year 2, and $1,279 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $88,564 in Year 1, $78,367 in Year 2, and $14,072 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.21 FTE in Year 1, 0.21 FTE in Year 2, and 0.21 FTE in Year 3. Salaries for these staff members will be $14,915 in Year 1, $15,288 in Year 2, and $15,670 in Year 3. This in-kind resource contribution will principally be of the ADE technical staff in the Division of Research and Technology who are assigned to the SLDS PMO to support the technical development of the SharePoint sites.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $4,588. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $4,681 and $4,776, respectively.

Indirect Costs. The indirect costs will be $1,950 in Year 1, $1,997 in Year 2, and $2,045 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $21,454 in Year 1, $21,966 in Year 2, and $22,490 in Year 3.

3. Teacher-Student Linkage

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.35 FTEs in Year 1, 0.35 FTEs in Year 2, and 0.56 FTEs in Year 3. Salaries for these staff members will be $23,275 in Year 1, $23,857 in Year 2, and $39,125 in Year 3. This dedication of the staff, together with the non-federal dedication by ADE, will support work that ADE will pursue on its own to implement changes in the SLDS that are needed to be able to effectively generate information linking students, courses, and teachers, as well as to provide for teacher review of course rosters. It will also provide for coordination of the work that Arkansas will pursue as part of the Gates Foundation initiative on

teacher evaluation, for which it has been selected and is taking part along with other states, and then scale up, using what is learned from this effort to a statewide implementation toward the conclusion of the grant period.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $7,238. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $7,382 and $12,047, respectively.

Contracts. ADE will contract with **Enspire, Inc**, the vendor who ADE had used in the development of its Hive solution, for a major enhancement of this tool, primarily focused on providing a rich environment for exploring the teacher student performance relationship, based on the work ADE will do independently and as part of the Gates Foundation funded initiative. The cost will be $ 100,000 in Year 1, $50,000 in Year 2, and $50,000 in year 3.

Indirect Costs. The indirect costs will be $13,051 in Year 1, $8,124 in Year 2, and $10,117 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $143,564 in Year 1, $89,362 in Year 2, and $111,290 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.26 FTEs in Year 1, 0.26 FTEs in Year 2, and 0.34 FTEs in Year 3. Salaries for these staff members will be $17,898 in Year 1, $18,345 in Year 2, and $25,072 in Year 3. Not accounted for in this non-federal budget is the substantial commitment that the Gates Foundation is making to this effort, including the allocation of what is expected to be the equivalent of one FTE from the consulting organization, CELT, and others who participate with support from the Foundation. In addition, a substantial effort will be made by the LEA staff in the three pilot LEAs, and substantial LEA participation will be required when the lessons learned from the pilot are implemented statewide.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $5,506. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $5,617 and $7,641, respectively.

Indirect Costs. The indirect costs will be $2,340 in Year 1, $2,396 in Year 2, and $3,271 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $25,745 in Year 1, $26,359 in Year 2, and $35,984 in Year 3.

4. Administrative Units Needs Assessment

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.14 FTEs in Year 1, 0.7 FTEs in Year 2, and 0 FTEs in Year 3. Salaries for these staff members will be $9,310 in Year 1, $4,771 in Year 2, and $0 in Year 3. This staff augmentation, together with the non-federal dedication described in the next section, will be for the purpose of planning and providing oversight to the administrative unit needs assessment that will be carried out by Metis Associates.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $2,895. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $1,476 and $0, respectively.

Contractual Services. ADE will expend $100,000 in Year 1 and $26,250 in Year 2 with **Metis Associates** to conduct an administrative unit needs assessment.

Indirect Costs. The indirect costs will be $11,221 in Year 1, $3,250 in Year 2, and $0 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $123,426 in Year 1, $35,747 in Year 2, and $0 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.17 FTEs in Year 1, 0.09 FTEs in Year 2, and 0 FTEs in Year 3. Salaries for these staff members will be $11,932 in Year 1, $6,115 in Year 2, and $0 in Year 3. These in-kind resources will supplement DOE resources needed to oversee the Administrative Unit Needs Assessment conducted by Metis Associates. This will also involve the dedication of staff time from the ADE administrative units, who will be the subject of the assessment. However, like other staff time that is primarily incidental to—rather than directly involved in—the organization of this SLDS work, this staff time has not been quantified as part of this budget narrative.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $3,671. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $1,872 and $0, respectively.

Indirect Costs. The indirect costs will be $1,560 in Year 1, $799 in Year 2, and $0 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $17,163 in Year 1, $8,786 in Year 2, and $0 in Year 3.

5. AEETT

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.7 FTEs in Year 1, 0.7 FTEs in Year 2, and 0.7 FTEs in Year 3. Salaries for these staff members will be $46,550 in Year 1, $47,714 in Year 2, and $48,907 in Year 3. This activity will be coordinated by the ARC and involves regular participation in the ongoing activities of the AEETT, including participation both in a

governance capacity and in technical activities necessary for AEETT to realize its stated objectives.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $14,475. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $14,763 and $15,059, respectively.

Indirect Costs. The indirect costs will be $6,103 in Year 1, $6,248 in Year 2, and $6,397 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $67,128 in Year 1, $68,725 in Year 2, and $70,362 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.09 FTEs in Year 1, 0.09 FTEs in Year 2, and 0.09 FTEs in Year 3. Salaries for these staff members will be $5,966 in Year 1, $6,115 in Year 2, and $6,268 in Year 3. A small dedication of ADE in-kind resources will be required mainly to ensure oversight and participation in governance activities, as well as participation in aspects of the technical work in which participation of the SLDS infrastructure team is required.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $1,835. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $1,872 and $1,910, respectively.

Contractual Services. Arkansas will expend approximately $50,000 in each of Years 1 and 2 on **DIS** charge-backs for technical services in support of this initiative, which represents a pass through of a portion of the $180,000 subscription fees that the AEETT participating agencies ($30,000 annually per agency) will pay to DIS for their participation in AEETT.

Indirect Costs. The indirect costs will be $5,780 in Year 1, $5,799 in Year 2, and $5,818 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $63,582 in Year 1, $63,786 in Year 2, and $63,996 in Year 3.

6. TrustEd

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 1.05 FTEs in Year 1, 1.05 FTEs in Year 2, and 1.05 FTEs in Year 3. Salaries for these staff members will be $69,825 in Year 1, $71,571 in Year 2, and $73,360 in Year 3. ADE will dedicate a significant portion of ARC resources to advance the TrustEd plan outlined in this application. The addition of the representatives from three of the four participating AEETT agencies to the ARC will be essential to enabling this

work to be effectively coordinated and carried out within the respective agencies and preparing the TrustEd solution for deployment for use in the AEETT for data exchanges.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $21,713. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $22,145 and $22,589, respectively.

Contractual Services. ADE will enter into a contract with **UALR** for involvement of its staff, as well as use of UALR facilities and equipment, required to advance aspects of the TrustEd initiative. The contract costs will be $100,000 in Year 1, $100,000 in Year 2, and $100,000 in Year 3.

Indirect Costs. The indirect costs will be $19,154 in Year 1, $19,372 in Year 2, and $19,595 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $210,691 in Year 1, $213,087 in Year 2, and $215,543 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.09 FTEs in Year 1, 0.09 FTEs in Year 2, and 0.09 FTEs in Year 3. Salaries for these staff members will be $5,966 in Year 1, $6,115 in Year 2, and $6,268 in Year 3. This in-kind resource allocation is to allow for a level of oversight and participation by members of the current ADE SLDS project team. In addition, Greg Holland, an Assistant Project Manager hired under the current IES SLDS grant, has very strong expertise in this area. As a result of his full dedication to the current grant work, he cannot be counted among the in-kind contributions for this grant application. Upon award, Mr. Holland will provide leadership in this work as newly hired staff develop the capability to work on aspects of the data-sharing initiative that are part of the current grant agenda, so that there is no diminution of effort applied to the current grant.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $1,835. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $1,872 and $1,910, respectively.

Contractual Services. Arkansas will expend approximately $50,000 in each of Years 1 and 2 on **DIS** charge-backs for technical services in support of this initiative, $30,000 of which represents the remaining portion of the $180,000 subscription fees that the AEETT participating agencies ($30,000 annually per agency) will pay to DIS for their participation in AEETT.

Indirect Costs. The indirect costs will be $5,780 in Year 1, $5,799 in Year 2, and $5,818 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $63,582 in Year 1, $63,786 in Year 2, and $63,996 in Year 3.

7. AEETT Interoperability Architecture

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.49 FTEs in Year 1, 0.70 FTEs in Year 2, and 0.70 FTEs in Year 3. Salaries for these staff members will be $32,585 in Year 1, $47,714 in Year 2, and $48,907 in Year 3. This allocation is for the staff resources needed to lead the advanced research and development effort around AEETT interoperability. This will include broad participation by the ARC team of cross-agency specialists who will be engaged in both planning and executing the proof of concept environment described in the Project Narrative. This work will entail defining the interoperability architecture in greater detail and assuming responsibility for data and other governance aspects of the exchange environment that will be established. In addition, this work will include developing agency-specific web services through which agencies will ultimately access each other's data, as well as agency-specific extensions to the NIEM model and other technical elements described in the Project Narrative.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $10,133. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $14,763 and $15,059, respectively.

Contractual Services. In Years 1–3 of the project, ADE will acquire the following contractual services:

NIEM and Other Technical Consultants. ADE will acquire the consultant services of experts in the technologies that are the subject of this initiative to assist in planning, architecture and execution, and filling skills gaps that are identified by the team. The cost for this consulting support will be $100,000 in Year 1, $175,000 in Year 2, and $175,000 in Year 3.

Metis Associates. ADE will use Metis Associates to assist in further developing the strategic direction for this initiative, conducting research, planning, advising, and coordinating the services of individual consultant specialists who may be engaged as well as implementing aspects of this work. The cost for this consulting support will be $70,000 in Year 1, $105,000 in Year 2, and $165,375 in Year 3.

Indirect Costs. The indirect costs will be $21,272 in Year 1, $34,248 in Year 2, and $40,434 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $233,989 in Year 1, $376,725 in Year 2, and $444,775 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.09 FTEs in Year 1, 0.09 FTEs in Year 2, and 0.09 FTEs in Year 3. Salaries for these staff members will be $5,966 in Year 1, $6,115 in Year 2, and $25,027 in Year 3. Although the AEETT effort will be led by staff from the ARC, this

allocation allows for a modest level of oversight by the Project Director and other SLDS PMO technical team staff in the ADE Division of Research and Planning.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $1,835. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $1,872 and $7,641, respectively.

Contractual Services. Arkansas will expend approximately $50,000 in each of Years 1 and 2 and 3 on **DIS** charge-backs for technical services in support for this initiative.

Indirect Costs. The indirect costs will be $5,780 in Year 1, $5,799 in Year 2, and $8,271 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $63,582 in Year 1, $63,786 in Year 2, and $90,984 in Year 3.

8. Pre-K Integration

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.28 FTEs in Year 1, 0.14 FTEs in Year 2, and 0.14 FTEs in Year 3. Salaries for these staff members will be $18,620 in Year 1, $9,543 in Year 2, and $9,781 in Year 3. A modest dedication of additional staff is being budgeted to complete the implementation of the expanded capture of Pre-K children, whose matching arrangements are currently being arranged with the Department of Human Services (DHS). In addition, staff are being budgeted to pursue work to determine what additional Pre-K children can be brought into the SLDS through similar matching/exchange arrangements with other entities in the state, as well as the implementation of these exchanges either directly or through the AEETT. Although this work will be led by staff in the ARC, it will be supported by SLDS PMO technical staff in the Division of Research and Planning.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $5,790. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $2,953 and $3,012, respectively.

Indirect Costs. The indirect costs will be $2,441 in Year 1, $1,250 in Year 2, and $1,279 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $26,851 in Year 1, $13,745 in Year 2, and $14,072 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.21 FTEs in Year 1, 0.13 FTEs in Year 2, and 0.13 FTEs in Year 3. Salaries for these staff members will be $14,915 in Year 1, $9,173 in Year 2, and $9,402 in Year 3. The federally funded staff allocation will be matched by an allocation

of in-kind ADE staff who will provide a level of oversight and work on technical aspects of Pre-K data exchange currently being planned, as well as implementation of necessary changes in the SLDS needed to accommodate the receipt of additional Pre-K data feeds that result from identification of new Pre-K data sources.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $4,588. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $2,809 and $2,865 respectively.

Indirect Costs. The indirect costs will be $1,950 in Year 1, $1,198 in Year 2, and $1,227 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $21,454 in Year 1, $13,179 in Year 2, and $13,494 in Year 3.

9. Phase I SLDS Technical Architecture Improvements

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.70 FTEs in Year 1, 0.49 FTEs in Year 2, and 0.28 FTEs in Year 3. Salaries for these staff members will be $46,550 in Year 1, $33,400 in Year 2, and $19,563 in Year 3. In the first two years of the grant, ADE will devote much of the staff time of the new Assistant Project Manager, who will be added to the ADE Research and Planning Division (as well as the in-kind effort of existing staff within the ADE Research and Planning Division), to the Phase I Technical Architecture Improvements initiative. This is a large effort and is a prerequisite to the larger and more aggressive restructuring that will occur in the Phase II SLDS Technical Architecture Improvement initiative. The staff mobilized for this activity will be migrated from the Phase I to the Phase II SLDS Architecture Restructuring Improvement initiative as work on the Phase I effort is completed.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $14,475. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $10,334 and $6,024, respectively.

Contractual Services. In Years 1–3 of the project, ADE will acquire the following contractual services:

DecisionEd. ADE will purchase consulting services from ADE's Cognos system integrator consultant, DecisionEd, to address work required in the Cognos 8 environment to accommodate both the Phase I and Phase II SLDS restructuring plans outlined in the Project Narrative. DecisionEd, which has worked for ADE for several years on the design and implementation of SLDS features implemented in the Cognos 8 environment, is being contracted under the 2009 IES grant to assist ADE in implementing the visualization features of the Cognos 8 tools suite and to continue providing support for the current Cognos implementation during this enhancement effort. The SLDS restructuring work described in this new grant application will involve significant changes in ADE's SLDS ETL and related processes used in moving data

from source systems to the Cognos data warehouse. This will require an increased level of effort by DecisionEd to accommodate these changes. This work is expected to cost $250,000 in Year 1, $131,250 in Year 2, and $0 in Year 3.

Metis Associates. ADE will engage Metis Associates to help with important aspects of this activity, including documentation and reverse engineering of legacy code necessary to achieve the planned restructuring of ADE ETL processes, validation of these processes in relation to law and regulation and incorporation of resulting metadata into ADE's data dictionary/metadata management system, and conducting similar work in relation to ADE's acquisition of a rules engine. This work is expected to cost $150,000 in Year 1, $78,750 in Year 2, and $0 in Year 3.

Rules Engine. ADE will acquire a commercial rules engine suitable for use in automation of the processes used for checking, validation and monitoring the quality of data submitted or extracted in the course of ETL and related process that move or transform data in the course of ADE's data collection, staging, dissemination, and reporting processes. This work, which will be inclusive of vendor services needed to implement, is expected to cost $250,000 in Year 1, $37,500 in Year 2, and $37,500 in Year 3, for the initial purchase and subsequent product support and maintenance.

Training Vendor. To address the need for effective training of an expanded team of data stewards in the use of the new data staging and district data certification environment, a critical aspect to the success of the restructuring initiative, ADE will acquire the services of a training vendor to provide computer based training (CBT) materials as well as deliver some level of instructor led training (ILT). ADE may or may not use the training vendor being acquired under the current IES SLDS grant to develop CBT training materials focused on the wider population of end users of the SLDS. This work is expected to cost $50,000 in Year 1, $25,000 in Year 2, and $25,000 in Year 3.

Indirect Costs. The indirect costs will be $76,103 in Year 1, $31,623 in Year 2, and $8,809 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $837,128 in Year 1, $347,857 in Year 2, and $96,895 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 1.62 FTEs in Year 1, 1.19 FTEs in Year 2, and 0.21 FTEs in Year 3. Salaries for these staff members will be $113,354 in Year 1, $85,612 in Year 2, and $15,670 in Year 3. ADE will make its primary contribution to this outcome from the work of ADE technical staff in the ADE Research and Planning Division, who will have primary responsibility for managing the contract services devoted to this initiative, as well as directly participating in the planning and execution of necessary technical work.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $34,872. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $26,213 and $4,776, respectively.

Contractual Services. As a result of the planned Phase I architectural restructuring effort, ADE expects an increase in **DIS** charge-backs for technical services and support in the amount of $250,000 in Year 1, $100,000 in Year 2, and $100,000 in Year 3.

Indirect Costs. The indirect costs will be $39,823 in Year 1, $21,182 in Year 2, and $12,045 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $438,049 in Year 1, $233,007 in Year 2, and $132,490 in Year 3.

10. Phase II SLDS Technical Architecture Improvements (eSchoolPLUS upgrade, SIF, and SOA Migration)

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.28 FTEs in Year 1, 0.49 FTEs in Year 2, and 0.70 FTEs in Year 3. Salaries for these staff members will be $18,620 in Year 1, $33,400 in Year 2, and $48,907 in Year 3. Beginning with planning and procurement activities in Year 1 of the grant and increasing substantially in the second and third years of the grant as ADE moves into implementation, ADE will devote a very substantial staff effort to this initiative. This effort will primarily involve the combination of efforts of the new IES funded Assistant Project Manager assigned to the Research and Planning Division, the ADE in-kind funded Project Manager and other in-kind non-federal technical staff that will work for the Assistant Manager in that Division, as well as a very substantial utilization of contractor professional services. The new IES-funded Assistant Project Manager will devote approximately half of his time to this effort, working in concert with the Project Manager and several ADE in-kind staff, and will responsible for the overall direction of the initiative. This critical initiative will result in the acquisition and implementation of eSchoolPLUS, SunGard's new SIF compliant student information system for use by all districts in the state and the migration of ADE's SLDS to a SIF/SOA data exchange standard. The Assistant Project Manager and in-kind ADE staff will focus on managing the vendors and DIS resources that will be engaged, as well as directly performing many aspects of this work.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $5,790. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $10,334 and $15,059, respectively.

Contractual Services. In Years 1–3 of the project, ADE will acquire the following contractual services:

SunGard. As described further below, in Year 1, ADE will purchase, using its own funds, a site license from SunGard, Inc. for the SunGard eSchoolPLUS school information system, which will replace the 12-year-old SunGard Pentamation. To implement the new software system ADE will contract for SunGard professional services to assist ADE in the implementation, conversion, training deployment, launch, and ongoing software maintenance. The cost for professional

services will be $264,598 in Year 1, $874,650 in Year 2 and $144,000 in Year 3 when full conversion to the new system and the decommissioning of the current system will be complete. At the conclusion of Year 3, consistent with the RFA requirement to use IES funds to supplement and not supplant regular state funding, ADE will fully assume all ongoing costs for maintenance and support of the new eSchoolPLUS system.

Edustructures. In Year 1, ADE will purchase from Edustructures a Zone Integration Server (ZIS) for the purpose of restructuring its district to state vertical integration system, and providing improved horizontal integration across district systems. Using the ZIS, ADE will use the SIF to standardize data exchange between systems that act as either data sources or consumers of information from ADE's SLDS, as described in greater detail in the Project Narrative. ADE will also contract for professional services to assist in the implementation, conversion, integration, deployment, launch, and ongoing hardware and software maintenance. The cost to purchase the ZIS, and associated Edustructures software licenses which will occur in Year 2, will be $733,400. Costs for necessary Edustructures ancillary software tools plus support and maintenance cost in Year 3 will be $253,400. Additional costs for professional services will be $225,000 in Year 2 and $155,000 in Year 3, when migration to the ZIS for most SLDS data exchange will be complete. At the conclusion of Year 3, ADE will fully assume all ongoing costs for maintenance and support of the ZIS environment.

DecisionEd. In Years 1–3 of the project, ADE will purchase consulting services from DecisionEd, ADE's Cognos system integrator consultant, to address work required in the Cognos 8 environment to accommodate both the Phase I and Phase II SLDS restructuring plans as described under Outcome 9, above, and in the Project Narrative. The cost for these services will be $0 in Year 1, $131,250 in Year 2, and 262,500 in Year 3.

Metis Associates. ADE will engage Metis Associates to help with important aspects of this activity, including continuing documentation work begun in the Phase I restructuring effort and incorporation of changes in metadata and arising from the migration to SIF and SOA exchange standards into ADE's data dictionary/metadata management system, and conducting of similar work in relation to ADE's acquisition of a rules engine. This work is expected to cost $78,750 in Year 2, and $82,688 in Year 3.

Indirect Costs. The indirect costs will be $28,901 in Year 1, $208,678 in Year 2, and $96,155 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $317,909 in Year 1, $2,295,462 in Year 2, and $1,057,708 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.77 FTEs in Year 1, 1.28 FTEs in Year 2, and 1.62 FTEs in Year 3. Salaries for these staff members will be $53,694 in Year 1, $91,727 in Year 2, and $119,093 in Year 3. As previously described, the staff allocation represents the in-

kind staff that will be dedicated from ADE's Research and Planning Division to help manage this initiative.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $16,518. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $28,085 and $36,294, respectively.

Contractual Services. In Years 1–3 of the project, ADE will acquire the following contractual services:

SunGard. In Year 1, ADE will purchase a site license from SunGard, Inc. for the SunGard eSchoolPLUS school information system, The cost for purchase of the site license, which will occur in Year 1, is $1,132,481. Additional modules that will be acquired during the implementation will cost $30,250 in Year 2 and $312,000 in Year 3.

DIS. As a result of the planned Phase I architectural restructuring effort, ADE expects an increase in DIS charge-backs for technical services and support in the amount of $100,000 in Year 1, $500,000 in Year 2, and $500,000 in Year 3.

Indirect Costs. The indirect costs will be $130,269 in Year 1, $65,006 in Year 2, and $96,739 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $1,432,963 in Year 1, $715,068 in Year 2, and $1,064,125 in Year 3.

11. NEDM/NCES Handbook Standards Adoption and Alignment

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.7 FTEs in Year 1, 0.7 FTEs in Year 2, and 0.7 FTEs in Year 3. Salaries for these staff members will be $46,550 in Year 1, $47,714 in Year 2, and $48,907 in Year 3. The ARC will provide leadership for efforts to implement a NEDM compliant database environment as an alternative structure for use by data specialists and researchers for housing ADE data, attached to and maintaining synchronicity with ADE's larger SLDS production data environments. This work will include efforts to conduct necessary mapping and migrate toward adoption by Arkansas of the NCES Handbook data definitions and the integration of resulting metadata changes into Arkansas' data dictionary/metadata management system.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $14,475. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $14,763 and $15,059, respectively.

Contractual Services. In Years 1–3 of the project, ADE will acquire the following contractual services:

Consultant(s) Data Standards/Database Design. To assist in advancing aspects of the planning and technical work needed to develop and employ a NEDM compliant database, ADE expects to obtain services from one or more consulting entities with specialized skills in database design and knowledge of the NEDM model to fill skills gaps in the ADE technical team. The cost for these services will be $75,000 in Year 1, $75,000 in Year 2, and $75,000 in Year 3.

Metis Associates. ADE will use the services of Metis Associates, which has been working with ADE on data dictionary metadata management, to assist in conducting planning, research, analysis, and implementation efforts related to building the NEDM databases, migrating Arkansas to the use of NCES data definitions, and incorporating outputs from this work into the data dictionary/metadata management environment. Metis will also participate in assisting ADE in working with consultant specialists it hires and in the development of an appropriate technical strategy to conduct all the work for this initiative. The cost for these services will be $65,000 in Year 1, $157,500 in Year 2, and $192,938 in Year 3.

Data Modeling Tools. ADE will purchase data modeling software at a cost of $2,000 in Year 1.

Indirect Costs. The indirect costs will be $20,303 in Year 1, $29,498 in Year 2, and $33,190 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this outcome are estimated to be $223,328 in Year 1, $324,475 in Year 2, and $365,093 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.13 FTEs in Year 1, 0.13 FTEs in Year 2, and 0.3 FTEs in Year 3. Salaries for these staff members will be $8,949 in Year 1, $9,173 in Year 2, and $21,938 in Year 3.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $2,753. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $2,809 and $6,686, respectively.

Contractual Services. In Years 1–3 of the project, ADE will acquire the following contractual services:

DIS. As a result of the planned implementation of a new database environment, ADE expects an increase in DIS charge-backs for technical services and support in the amount of $50,000 in Year 1, $100,000 in Year 2, and $150,000 in Year 3.

Indirect Costs. The indirect costs will be $1,170 in Year 1, $6,198 in Year 2, and $12,862 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this outcome are estimated to be $12,872 in Year 1, $68,179 in Year 2, and $141,486 in Year 3.

Budget Items Applicable to All Outcome Areas and Not Broken Out by Outcome

A. Travel

Proposed Federal Expenditures: Years 1–3

Travel. As described in Section II, above, ADE will expend $9,500 annually in Years 1–3 for travel across all the outcomes described in this grant application.

Indirect Costs. The indirect costs will be $950 in Years 1–3

Total Costs. Total federally funded costs for work proposed in this application for this expense category are estimated to be $10,450 in Year 1, $10,450 in Year 2, and $10,450 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Travel. As described in Section II, above, ADE will expend $5,400 annually in Years 1–3 for travel across all the outcomes described in this grant application.

Indirect Costs. The indirect costs will be $540 in Years 1–3.

Total Costs. Total non-federally funded costs for work proposed in this application for this expense category are estimated to be $5,940 in Year 1, $5,940 in Year 2, and $5,940 in Year 3.

B. Project Management Support Services

Proposed Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.98 FTEs in Year 1, 0.98 FTEs in Year 2, and 0.98 FTEs in Year 3. Salary apportioned to this activity for this staff member will be $65,170 in Year 1, $66,799 in Year 2, and $68,469 in Year 3. Upon award, ADE will hire an Administrative Assistant primarily to assist the Project Director, James Boardman, in expanding the reach and strengthening the work related to SLDS stakeholder engagement at the highest level and especially among external stakeholders. This individual will be knowledgeable about the workings of state government and ADE's institutional partners. The Administrative Assistant will focus on scheduling and arranging regular stakeholder meetings, including periodic meetings of the initiative's high-level steering committee as described in the project narrative; more regular meetings and interactions with individuals and groups of external stakeholders with whom the Project Director must regularly interact; and regular internal meetings with the SLDS PMO and the ADE SLDS Steering Committee. This individual will be essential to achieving a level of communication and sustained networking and relationship building with ADE's SLDS stakeholders commensurate with the greatly expanded scope of the

SLDS work described in this grant application. The role is viewed by ADE as most critical to achieving and maintaining success of the overall program.

Other ongoing project management activities carried out by DOE-supported and in-kind ADE staff resources, which are integral to the work to achieve the 11 outcomes, are already included within the staff allocations for these outcomes.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $20,265. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $20,669 and $21,083, respectively.

Contractual Services. ADE will use the services of **Metis Associates**, a research and consulting firm that has been working with ADE on its SLDS since 2005. Under the IES 2008 grant, Metis is already providing project management support and management consulting services across all areas of the ADE SLDS project effort. Metis is also providing more targeted technical support for several data quality initiatives, as well as program evaluation over the 3-year span of the grant. Upon award of an IES grant for the new work outlined in this application, Metis Associates will provide additional resources and services to address the broader scope of work in which ADE will be engaged. The targeted technical and evaluation services that Metis Associates will provide are described elsewhere in this budget narrative. The projected costs for the added management consulting and project management support services associated with this grant application—over and above the services already being performed under the current IES grant—will amount to $200,000 in Year 1, $210,000 in Year 2, and $220,500 in Year 3.

Indirect Costs. The indirect costs will be $28,544 in Year 1, $29,747 in Year 2, and $31,005 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this expense category are estimated to be $313,979 in Year 1, $327,215 in Year 2, and $341,057 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.085 FTEs in Year 1, 0.085 FTEs in Year 2, and 0.085 FTEs in Year 3. Salaries for these staff members will be $5,966 in Year 1, $6,115 in Year 2, and $6,268 in Year 3. This amount represents the incremental dedication of the Project Director and PMO Project Managers in overseeing the contract with Metis Associates to provide management consulting and project management support. As previously stated, ongoing project management activities carried out by other DOE-supported and in-kind ADE staff resources, which are integral to the work to achieve the 11 outcomes, are already included within the staff allocations for those 11 outcomes.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $1,835. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $1,872 and $1,910, respectively.

Indirect Costs. The indirect costs will be $780 in Year 1, $799 in Year 2, and $818 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this expense category are estimated to be $8,582 in Year 1, $8,786 in Year 2, and $8,996 in Year 3.

C. Evaluation

Proposed Federal Expenditures: Years 1–3

Contractual Services. Metis Associates will perform evaluation services over the course of this grant as described in the Project Narrative. Under the IES 2008 grant, Metis is already providing program evaluation services over the 3-year span of that grant. Upon award of an IES grant for the new work outlined in the present application, Metis Associates will provide additional resources and services to address the broader scope of evaluation work required. The projected costs for the added evaluation services to address the expanded project agenda associated with this grant application—over and above the services already being performed under the current IES grant—will amount to $150,000 in Year 1, $157,500 in Year 2, and $192,938 in Year 3.

Indirect Costs. The indirect costs will be $15,000 in Year 1, $15,750 in Year 2, and $19,294 in Year 3.

Total Costs. Total federally funded costs for work proposed in this application for this expense category are estimated to be $165,000 in Year 1, $173,250 in Year 2, and $212,231 in Year 3.

Proposed Non-Federal Expenditures: Years 1–3

Personnel. ADE will expend the equivalent of 0.21 FTEs in Year 1, 0.21 FTEs in Year 2, and 0.34 FTEs in Year 3. Salaries for these staff members will be $14,915 in Year 1, $15,288 in Year 2, and $25,072 in Year 3. This amount represents the incremental dedication of the Project Director and PMO Project Managers in overseeing the contract with Metis Associates to provide evaluation services.

Not included here is a very substantial commitment of effort that will be made by thousands of Arkansas educators and others who will be respondents to surveys that Metis will circulate on behalf of ADE, as well as time spent by a small portion of these respondents participating in focus groups and related activities as part of the evaluation.

Fringe Benefits. Based on the personnel assigned, the total budget for fringe benefits in Year 1 will be $4,588. Projecting that these fringe benefit rates will remain stable over the 3-year grant period, the totals for fringe benefits in Years 2 and 3 will be $4,681 and $7,641, respectively. This amount represents an allocation of the time of the Project Director and other senior members of the ADE team in overseeing and participating in the evaluation activities.

Indirect Costs. The indirect costs will be $1,950 in Year 1, $1,997 in Year 2, and $3,271 in Year 3.

Total Costs. Total non-federally funded costs for work proposed in this application for this expense category are estimated to be $21,454 in Year 1, $21,966 in Year 2, and $35,984 in Year 3.

IV. Supporting Schedules

This section consists of the following supporting schedules, including supporting schedules for consultants required by the RFA, and supporting schedules for planned acquisitions from Edustructures and SunGard. These are provided as attachments to this Budget Narrative in the form of a set of Excel worksheets. These include:

Outcome Summary. This worksheet provides a consolidated outcome-by-outcome breakout of costs for each budget category described in Section III by DOE and by non-federal component and by year.

SunGard. This worksheet provides a break out of the software and services to be purchased from SunGard.

Edustructures. This worksheet provides a break out of the software and services to be purchased from SunGard.

Metis Associates. This worksheet provides a breakout of consulting costs by consulting hours in rates paid by year and allocation to outcomes for this contractor.

DecisionEd. This worksheet provides a breakout of consulting costs by consulting hours and rates paid by year and allocation to outcomes for this contractor.

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Section 7 Budget Justification (Section IV - Summary by Outcome)

#	Outcome	Expenditure Category	Annual Budgeted Expense (000's)								Y1-3 Total (DOE + NF)
			DOE				NF				
			Yr1	Y2	Yr3	Tot	Yr1	Y2	Yr3	Tot	
1	ARC: DDDM & Researcher Engagement	FTEs	0.98	1.12	1.05	3.15	0.34	0.43	0.51	1.28	4.43
		Personnel	$65,170	$76,342	$73,360	$214,872	$23,864	$30,576	$37,608	$92,048	$306,920
		Fringe	$20,265	$23,622	$22,589	$66,475	$7,341	$9,362	$11,461	$28,164	$94,640
		Contracts									
		Total Direct	$85,435	$99,964	$95,948	$281,347	$31,205	$39,937	$49,069	$120,212	$401,560
		Indirect	$8,544	$9,996	$9,595	$28,135	$3,121	$3,994	$4,907	$12,021	$40,156
		Outcome Tot	$93,979	$109,960	$105,543	$309,482	$34,326	$43,931	$53,976	$132,234	$441,715
2	Development of DDDM and Researcher Collaboration Portals	FTEs	0.35	0.21	0.14	0.70	0.21	0.21	0.21	0.64	1.34
		Personnel	$23,275	$14,314	$9,781	$47,370	$14,915	$15,288	$15,670	$45,873	$93,243
		Fringe	$7,238	$4,429	$3,012	$14,678	$4,588	$4,681	$4,776	$14,045	$28,723
		Metis	$50,000	$52,500							
		Contracts	$50,000	$52,500		$102,500					$102,500
		Total Direct	$80,513	$71,243	$12,793	$164,549	$19,503	$19,969	$20,446	$59,918	$224,467
		Indirect	$8,051	$7,124	$1,279	$16,455	$1,950	$1,997	$2,045	$5,992	$22,447
		Outcome Tot	$88,564	$78,367	$14,072	$181,004	$21,454	$21,966	$22,490	$65,910	$246,913
3	Teacher-Student Linkage	FTEs	0.35	0.35	0.56	1.26	0.26	0.26	0.34	0.85	2.11
		Personnel	$23,275	$23,857	$39,125	$86,257	$17,898	$18,345	$25,072	$61,316	$147,573
		Fringe	$7,238	$7,382	$12,047	$26,667	$5,506	$5,617	$7,641	$18,764	$45,431
		Enspire	$100,000	$50,000	$50,000						
		Contracts	$100,000	$50,000	$50,000	$200,000					$200,000
		Total Direct	$130,513	$81,239	$101,173	$312,924	$23,404	$23,962	$32,713	$80,080	$393,003
		Indirect	$13,051	$8,124	$10,117	$31,292	$2,340	$2,396	$3,271	$8,008	$39,300
		Outcome Tot	$143,564	$89,362	$111,290	$344,216	$25,745	$26,359	$35,984	$88,088	$432,304
4	Administrative Units Needs Assessment	FTEs	0.14	0.07		0.21	0.17	0.09		0.26	0.47
		Personnel	$9,310	$4,771		$14,081	$11,932	$6,115		$18,047	$32,129
		Fringe	$2,895	$1,476		$4,371	$3,671	$1,872		$5,543	$9,914
		Metis	$100,000	$26,250							
		Contracts	$100,000	$26,250		$126,250					$126,250
		Total Direct	$112,205	$32,498		$144,703	$15,603	$7,987		$23,590	$168,293
		Indirect	$11,221	$3,250		$14,470	$1,560	$799		$2,359	$16,829
		Outcome Tot	$123,426	$35,747		$159,173	$17,163	$8,786		$25,949	$185,122

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5	AEETT Participation	FTEs	0.70	0.70	0.70	2.10	0.09	0.09	0.09	0.26	2.36
		Personnel	$46,550	$47,714	$48,907	$143,170	$5,966	$6,115	$6,268	$18,349	$161,520
		Fringe	$14,475	$14,763	$15,059	$44,298	$1,835	$1,872	$1,910	$5,618	$49,916
		DIS					$50,000	$50,000	$50,000		
		Contracts					$50,000	$50,000	$50,000	$150,000	$150,000
		Total Direct	$61,025	$62,477	$63,966	$187,468	$57,801	$57,987	$58,178	$173,967	$361,435
		Indirect	$6,103	$6,248	$6,397	$18,747	$5,780	$5,799	$5,818	$17,397	$36,144
		Outcome Tot	$67,128	$68,725	$70,362	$206,215	$63,582	$63,786	$63,996	$191,364	$397,579
6	TrustEd	FTEs	1.05	1.05	1.05	3.15	0.09	0.09	0.09	0.26	3.41
		Personnel	$69,825	$71,571	$73,360	$214,756	$5,966	$6,115	$6,268	$18,349	$233,105
		Fringe	$21,713	$22,145	$22,589	$66,446	$1,835	$1,872	$1,910	$5,618	$72,064
		UALR	$100,000	$100,000	$100,000	$300,000					$300,000
		DIS					$50,000	$50,000	$50,000	$150,000	$150,000
		Contracts	$100,000	$100,000	$100,000	$300,000	$50,000	$50,000	$50,000	$150,000	$450,000
		Total Direct	$191,538	$193,716	$195,948	$581,202	$57,801	$57,987	$58,178	$173,967	$755,169
		Indirect	$19,154	$19,372	$19,595	$58,120	$5,780	$5,799	$5,818	$17,397	$75,517
		Outcome Tot	$210,691	$213,087	$215,543	$639,322	$63,582	$63,786	$63,996	$191,364	$830,686
7	AEETT Inter-operability	FTEs	0.49	0.70	0.70	1.89	0.09	0.09	0.34	0.51	2.40
		Personnel	$32,585	$47,714	$48,907	$129,205	$5,966	$6,115	$25,072	$37,153	$166,359
		Fringe	$10,133	$14,763	$15,059	$39,955	$1,835	$1,872	$7,641	$11,349	$51,304
		Prof Serv NIEM	$100,000	$175,000	$175,000	$450,000					$450,000
		Metis	$70,000	$105,000	$165,375	$340,375					$340,375
		DIS					$50,000	$50,000	$50,000	150000.00	$150,000
		Contracts	$170,000	$280,000	$340,375	$790,375	$50,000	$50,000	$50,000	$150,000	$940,375
		Total Direct	$212,718	$342,477	$404,341	$959,535	$57,801	$57,987	$82,713	$198,502	$1,158,037
		Indirect	$21,272	$34,248	$40,434	$95,954	$5,780	$5,799	$8,271	$19,850	$115,804
		Outcome Tot	$233,989	$376,725	$444,775	$1,055,489	$63,582	$63,786	$90,984	$218,352	$1,273,841
8	Pre-K Integration	FTEs	0.28	0.14	0.14	0.56	0.21	0.13	0.13	0.47	1.03
		Personnel	$18,620	$9,543	$9,781	$37,944	$14,915	$9,173	$9,402	$33,490	$71,434
		Fringe	$5,790	$2,953	$3,012	$11,755	$4,588	$2,809	$2,865	$10,262	$22,017
		Contracts									
		Total Direct	$24,410	$12,495	$12,793	$49,699	$19,503	$11,981	$12,267	$43,752	$93,451
		Indirect	$2,441	$1,250	$1,279	$4,970	$1,950	$1,198	$1,227	$4,375	$9,345
		Outcome Subtotal	$26,851	$13,745	$14,072	$54,668	$21,454	$13,179	$13,494	$48,127	$102,796

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9	Phase I SLDS Technical Architecture Improvements	FTEs	0.70	0.49	0.28	1.47	1.62	1.19	0.21	3.02	4.49
		Personnel	$46,550	$33,400	$19,563	$99,512	$113,354	$85,612	$15,670	$214,636	$314,148
		Fringe	$14,475	$10,334	$6,024	$30,833	$34,872	$26,213	$4,776	$65,860	$96,693
		Metis	$150,000	$78,750		$228,750					$228,750
		Rules Engine	$250,000	$37,500	$37,500	$325,000					$325,000
		DecisionEd	$250,000	$131,250		$381,250					$381,250
		DIS					$250,000	$100,000	$100,000	$450,000	$450,000
		Data Stew Trn	$50,000	$25,000	$25,000	$100,000					$100,000
		Contracts	$700,000	$272,500	$62,500	$1,035,000	$250,000	$100,000	$100,000	$450,000	$1,485,000
		Total Direct	$761,025	$316,234	$88,086	$1,165,345	$398,226	$211,825	$120,446	$730,497	$1,895,842
		Indirect	$76,103	$31,623	$8,809	$116,535	$39,823	$21,182	$12,045	$73,050	$189,584
		Outcome Tot	$837,128	$347,857	$96,895	$1,281,880	$438,049	$233,007	$132,490	$803,546	$2,085,426

10	Phase II SLDS Technical Architecture Improvements	FTEs	0.28	0.49	0.70	1.47	0.77	1.28	1.62	3.66	5.13
		Personnel	$18,620	$33,400	$48,907	$100,926	$53,694	$91,727	$119,093	$264,514	$365,440
		Fringe	$5,790	$10,334	$15,059	$31,184	$16,518	$28,085	$36,294	$80,898	$112,081
		SunGard SW									
		SunGard Prof	$264,598	$874,650	$144,000	$1,283,248	$1,132,481	$30,250	$312,000	$1,474,731	$2,757,979
		Edust HW/SW		$733,400	$253,400	$986,800					
		Edust Prof Serv		$225,000	$155,000	$380,000					
		DecisionEd		$131,250	$262,500	$393,750					
		Metis		$78,750	$82,688	$161,438					
		DIS					$100,000	$500,000	$500,000	$1,100,000	$1,100,000
		Contracts	$264,598	$2,043,050	$897,588	$3,205,236	$1,232,481	$530,250	$812,000	$2,574,731	$5,779,967
		Total Direct	$289,008	$2,086,784	$961,553	$3,337,345	$1,302,693	$650,062	$967,387	$2,920,142	$6,257,488
		Indirect	$28,901	$208,678	$96,155	$333,735	$130,269	$65,006	$96,739	$292,014	$625,749
		Outcome Tot	$317,909	$2,295,462	$1,057,708	$3,671,080	$1,432,963	$715,068	$1,064,125	$3,212,157	$6,883,236

11	NEDM/ NCES Handbook	FTEs	0.70	0.70	0.70	2.1	0.13	0.13	0.30	0.55	2.65
		Personnel	$46,550	$47,714	$48,907	$143,170	$8,949	$9,173	$21,938	$40,060	$183,230
		Fringe	$14,475	$14,763	$15,059	$44,298	$2,753	$2,809	$6,686	$12,247	$56,545
		DB Design	$75,000	$75,000	$75,000	$225,000					
		Metis	$65,000	$157,500	$192,938	$415,438					
		DIS						$50,000	$100,000	$150,000	$150,000
		Data Mod Tool	$2,000			$2,000					
		Contracts	$142,000	$232,500	$267,938	$642,438		$50,000	$100,000	$150,000	$792,438
		Total Direct	$203,025	$294,977	$331,903	$829,905	$11,702	$61,981	$128,624	$202,307	$1,032,213
		Indirect	$20,303	$29,498	$33,190	$82,991	$1,170	$6,198	$12,862	$20,231	$103,221
		Outcome Tot	$223,328	$324,475	$365,093	$912,896	$12,872	$68,179	$141,486	$222,538	$1,135,434

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Cross-Outcome Activities											
A	Travel	Travel	$9,500	$9,500	$9,500	$28,500	$5,400	$5,400	$5,400	$16,200	$44,700
		Total Direct	$9,500	$9,500	$9,500	$28,500	$5,400	$5,400	$5,400	$16,200	$44,700
		Indirect	$950	$950	$950	$2,850	$540	$540	$540	$1,620	$44,700
		Tot	$10,450	$10,450	$10,450	$31,350	$5,940	$5,940	$5,940	$17,820	$49,170
B	Project Management/ Management Consulting Support Services	FTEs	0.98	0.98	0.98	2.94	0.085	0.085	0.085	0.255	3.20
		Personnel	$65,170	$66,799	$68,469	$200,438	$5,966	$6,115	$6,268	$18,349	$218,788
		Fringe	$20,265	$20,669	$21,083	$62,017	$1,835	$1,872	$1,910	$5,618	$67,635
		Metis	$200,000	$210,000	$220,500						
		Contracts	$200,000	$210,000	$220,500	$630,500					$630,500
		Total Direct	$285,435	$297,468	$310,052	$892,955	$7,801	$7,987	$8,178	$23,967	$916,922
		Indirect	$28,544	$29,747	$31,005	$89,296	$780	$799	$818	$2,397	$91,692
		Tot	$313,979	$327,215	$341,057	$982,251	$8,582	$8,786	$8,996	$26,364	$1,008,614
C	Evaluation	FTEs					0.2125	0.2125	0.34	0.765	0.77
		Personnel					$14,915	$15,288	$25,072	$55,275	$55,275
		Fringe					$4,588	$4,681	$7,641	$16,910	$16,910
		Metis	$150,000	$157,500	$192,938	$500,438					
		Contracts	$150,000	$157,500	$192,938	$500,438					$500,438
		Total Direct	$150,000	$157,500	$192,938	$500,438	$19,503	$19,969	$32,713	$72,185	$572,623
		Indirect	$15,000	$15,750	$19,294	$50,044	$1,950	$1,997	$3,271	$7,219	$57,262
		Tot	$165,000	$173,250	$212,231	$550,481	$21,454	$21,966	$35,984	$79,404	$629,885
Grant Application Totals		FTEs	7.00	7.00	7.00	21	4.25	4.25	4.25	12.75	33.75
		Personnel	$465,500	$477,138	$489,066	$1,431,704	$298,300	$305,758	$313,401	$917,459	$2,349,163
		Fringe	$144,751	$147,635	$150,591	$442,977	$91,769	$93,617	$95,511	$280,897	$723,874
		Contracts	$1,976,598	$3,424,300	$2,131,838	$7,532,736	$1,632,481	$830,250	$1,162,000	$3,624,731	$11,157,467
		Travel	$9,500	$9,500	$9,500	$28,500	$5,400	$5,400	$5,400	$16,200	$44,700
		Total Direct	$2,596,349	$4,058,573	$2,780,995	$9,435,917	$2,027,950	$1,235,025	$1,576,312	$4,839,287	$14,275,204
		Indirect	$259,635	$405,857	$278,099	$943,591	$202,795	$123,502	$157,631	$483,928	$1,427,519
		Total	**$2,855,984**	**$4,464,430**	**$3,059,094**	**$10,379,508**	**$2,230,745**	**$1,358,527**	**$1,733,943**	**$5,323,215**	**$15,702,723**

SunGard - eSchoolPlus Software Acquisition and Implementation Costs

Software Liscences (NF - ADE Funds)	Yr 1	Yr2	Yr3	Total Cost
eSchoolPlus Software License Fee	804,194			804,194
On-line Enrollment Module	50,000			50,000
ESchoolPlus Cognos 8 Framework Models/datango eLearning Trainer and Producer Tools	141,887			141,887
Conversion Tool-Phase 3			12,000	12,000
Special Education Modules	136,400			136,400
IEPplus Software Licenses			300,000	300,000
Collaborator/Learning Management Tool		30,250		30,250
Software Total	**1,132,481**	**30,250**	**312,000**	**1,474,731**
Services (DOE IES SLDS Grant)	**Yr 1**	**Yr2**	**Yr3**	**Total Cost**
Engineering Services-Remote Installation of eSchoolPlus Applications to DIS Servers		25,000		25,000
Hosting Services for Phase 1 of Implementation (PCSSD and one StudentPlus District)		90,000		90,000
Project Management-Phase 1	45,700			45,700
Project Management-Phase 2		207,400		207,400
Training-Phase 1 (2 districts, OnTrack Training)	123,268			123,268
Training-Phase 2 (12 districts, Express Track Training + APSCN Trainers)		245,500		245,500
Conversions-Phase 1		36,750		36,750
Conversions-Phase 2			144,000	144,000
State Regulatory Discovery Sessions (6 days @ $1480)	8,880			8,880
Cognos Reporting (re-write current library of 120 StudentPlus Cognos Reports)		132,000		132,000
Custom Programming	81,750			81,750
Data Extracts from eSchoolPlus to state data warehouse		123,000		123,000
Related Travel Costs/Reimbursable Expenses	5,000	15,000		20,000
Services Total	**264,598**	**874,650**	**144,000**	**1,283,248**
	Yr 1	**Yr2**	**Yr3**	**Total Cost**
Grand Total	**1,397,079**	**904,900**	**456,000**	**2,757,979**

Edustructures			
Software Licenses and ZIS	Yr 1	Yr 2	Yr 3
Statewide Restricted Use ZIS	$0	$300,000	$60,000
Student Locator Framework	$0	$300,000	$60,000
Unrestricted ZIS Licenses (460,000)	$0	$133,400	$133,400
Software Licenses and ZIS Total	**$0**	**$733,400**	**$253,400**
Professional Services	Yr 1	Yr 2	Yr 3
Report Manifest Development Costs	$0	$125,000	$125,000
Adaptor Development Costs	$0	$50,000	$10,000
Implementation and Training	$0	$50,000	$20,000
Services Total	**$0**	**$225,000**	**$155,000**
Grand Total	**$0**	**$958,400**	**$408,400**

ADE 2009 SLDS Grant Application
Section 7 .Budget Narrative (Part IV., Attachment 4 - Metis Associates)

Metis Associates, Inc.							
Supporting Budget Schedules - by Consulting Activity Area and Year							
Consulting Activity Area		Mgmt. Consulting & PM Support	Targeted Technical Work	Evaluation	Total		
Year 1		$200,000	$435,000	$150,000	$785,000		
Year 2		$210,000	$498,750	$157,500	$866,250		
Year 3		$220,500	$441,000	$192,938	$854,438		
Grand Total:		$630,500	$1,374,750	$500,438	$2,505,688		
Supporting Budget Schedules - by Consulting Days and Rates							
Consultant Level (3)	Yr 1 Daily Rate	Yr 1 Days	Yr 2 Days	Yr 3 Days	Yr 1 Cost(2)	Yr 2 Cost (2)	Yr 3 Cost (2)
Managing Senior Associate	$2,210.3	197	208	195	$436,494	$481,673	$475,105
Senior Associate	$1,654.8	82	86	81	$136,161	$150,254	$148,206
Senior Research or Systems Associate	$1,323.8	66	69	65	$87,143	$96,163	$94,852
Research, Systems or Program Development	$1,004.7	66	69	65	$66,135	$72,981	$71,986
Consultant Totals		411	432	406	$725,934	$801,071	$790,147
T&E					$59,066	$65,179	$64,290
Grand Total					$785,000	$866,250	$854,438
3 Year Total							$2,505,688
2. Reflects 5% annual increment in consultant rates each year.							
Supporting Budget Schedules - By Outcome							
Outcome	Yr 1 Cost	Yr 2 Cost	Yr 3 Cost	Total			
Targeted Tech Assignments							
Portals	$50,000	$52,500	$0	$102,500			
Admi Needs A	$100,000	$26,250	$0	$126,250			
AEETT Interop	$70,000	$105,000	$165,375	$340,375			
Phase I SLDS	$150,000	$78,750	$0	$228,750			
Phase II SLDS	$0	$78,750	$82,688	$161,438			
NEDM	$65,000	$157,500	$192,938	$415,438			
Targeted Total	$435,000	$498,750	$441,000	$1,374,750			
				$0			
PM Support	$200,000	$210,000	$220,500	$630,500			
Eval	$150,000	$157,500	$192,938	$500,438			
Annual Totals	**$785,000**	**$866,250**	**$854,438**	**$2,505,688**			
Grand Total			**$2,505,688**				

DecisionEd Inc.

Supporting Budget Schedules - by Outcome and Year

Consulting Activity Year	Outcome 9 Phase I SLDS	Outcome 10 Phase II SLDS	Total
Year 1	$250,000	$0	$250,000
Year 2	$131,250	$131,250	$262,500
Year 3	$0	$275,625	$275,625
Grand Total:	$0	$406,875	$788,125

Supporting Budget Schedules - by Consulting Days and Rates

Consultant Level (3)	Yr 1 Daily Rate	Days Yr1	Days Yr2	Days Yr3	Yr 1 Cost	Yr 2 Cost (2)	Yr 3 Cost (2)
Senior Consultant	$1,218.0	65	65	65	$79,170	$83,129	$83,129
Consultant	$924.0	65	65	65	$60,060	$63,063	$63,063
Report Specialist	$756.0	65	65	65	$49,140	$51,597	$51,597
Consultant Totals		195	195	195	$188,370	$197,789	$197,789
T&E					$61,630	$64,712	$77,837
Grand Total					$250,000	$262,500	$275,625
3 Year Total							$788,125

2. Reflects 5% annual increment in consultant rates each year.

Budget Narrative

Budget Narrative - ED 524 Section C Spreadsheet

Attachment 1:
Title: **Section 4 - Bud Info (ED 524) - Section C** Pages: **13** Uploaded File: **Section 4 - Bud Info (ED 524) - Section C.pdf**

ADE 2009 SLDS Grant Application
4. (ED 524) Section C - Itemized Budget

ADE SLDS - IES Grant Application - 3 Yr Grand Total Calculation - DOE Funds	
Year	Annual Total
Yr1	$2,855,984
Yr2	$4,464,430
Yr3	$3,059,094
Grand Total - 3 Years	**$10,379,508**
ADE SLDS - IES Grant Application - 3 Yr Grand Total Calculation - NF Funds	
Year	Annual Total
Yr1	$2,230,745
Yr2	$1,358,527
Yr3	$1,733,943
Grand Total - 3 Years	**$5,323,215**

Year 1 - U.S. Department of Education Funds							
1	**Personnel**						
	Position		**FTE**	**Rate**		**Value**	**Totals**
	Asst Project Manager		1	$66,500	per year	$66,500	
	Asst Project Manager		1	$66,500	per year	$66,500	
	Admin Assistant		1	$66,500	per year	$66,500	
	State Agency FTE		1	$66,500	per year	$66,500	
	State Agency FTE		1	$66,500	per year	$66,500	
	State Agency FTE		1	$66,500	per year	$66,500	
	State Agency FTE		1	$66,500	per year	$66,500	
		Personnel total	7				**$465,500**
2	**Fringe benefits**						
	Social Security		$465,500	7.65%		$35,611	
	Health Insurance		7	$4,200		$29,400	
	Unemployment Insurance		$465,500	2.10%		$9,776	
	Worker's Compensation		$465,500	1.03%		$4,795	
	Retirement		$465,500	14.00%		$65,170	
		Fringe benefits total					**$144,751**
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**						
	SunGard (Consulting Services)					$264,598	
	Metis Associates, Inc. (Consulting Services)					$785,000	
	Consultant (TBD) - NEDM, NCES, NIEM					$100,000	
	Trusted Broker (UALR Contract)					$100,000	
	Enspire (Visual Analytics)					$100,000	
	Data Quality Rules Engine (TBD)					$250,000	
	DecisionEd (Cognos Integration Services)					$250,000	
	Consultant (TBD) NEDM/DB Design					$75,000	
	Training Services (TBD) (Data Stewards)					$50,000	
	NEDM Data Modeling Tools Package					$2,000	

ADE 2009 SLDS Grant Application
4. (ED 524) Section C - Itemized Budget

		Contractual total					**$1,976,598**
7	**Construction**						
	None					$0	
		Construction total					**$0**
8	**Other**						
						$0	
		Other total					**$0**
9	**Total direct costs**						**$2,596,349**
10	**Indirect costs (total * 10%)**						**$259,635**
12	**Grand total**						**$2,855,984**

Year 2 - U.S. Department of Education Funds							
1	**Personnel**						
	Position		**FTE**	**Rate**		**Value**	**Totals**
	Asst Project Manager		1	$66,500	per year	$68,163	
	Asst Project Manager		1	$66,500	per year	$68,163	
	Admin Assistant		1	$66,500	per year	$68,163	
	State Agency FTE		1	$66,500	per year	$68,163	
	State Agency FTE		1	$66,500	per year	$68,163	
	State Agency FTE		1	$66,500	per year	$68,163	
	State Agency FTE		1	$66,500	per year	$68,163	
		Personnel total	7				
							$477,138
2	**Fringe benefits**						
	Social Security		$477,138	7.65%		$36,501	
	Health Insurance		7	$4,200		$29,400	
	Unemployment Insurance		$477,138	2.10%		$10,020	
	Worker's Compensation		$477,138	1.03%		$4,915	
	Retirement		$477,138	14.00%		$66,799	
		Fringe benefits total					**$147,635**
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**						
	SunGard (Consulting Services)					$874,650	
	Edustructures (Zone Integration Server)					$733,400	
	Edustructures (ZIS Consulting Services)					$225,000	
	Metis Associates, Inc. (Consulting Services)					$866,250	
	Consultant (TBD) - NEDM, NCES, NIEM					$175,000	
	Trusted Broker (UALR Contract)					$100,000	
	Enspire (Visual Analytics)					$50,000	
	Data Quality Rules Engine (TBD)					$37,500	
	DecisionEd (Cognos Integration Services)					$262,500	
	Consultant (TBD) NEDM/DB Design					$75,000	
	Training Services (TBD) (Data Stewards)					$25,000	

		Contractual total					**$3,424,300**
7	**Construction**						
	None					$0	
		Construction total					**$0**
8	**Other**						
		Other total					**$0**
9	**Total direct costs**						**$4,058,573**
10	**Indirect costs (total * 10%)**						**$405,857**
12	**Grand total**						**$4,464,430**

ADE 2009 SLDS Grant Application
4. (ED 524) Section C - Itemized Budget

Year 3 - U.S. Department of Education Funds							
1	**Personnel**						
	Position		**FTE**	**Rate**		**Value**	**Totals**
	Asst Project Manager		1	$69,867	per year	$69,867	
	Asst Project Manager		1	$69,867	per year	$69,867	
	Admin Assistant		1	$69,867	per year	$69,867	
	State Agency FTE		1	$69,867	per year	$69,867	
	State Agency FTE		1	$69,867	per year	$69,867	
	State Agency FTE		1	$69,867	per year	$69,867	
	State Agency FTE		1	$69,867	per year	$69,867	
		Personnel total	7				**$489,066**
2	**Fringe benefits**						
	Social Security		$489,066	7.65%		$37,414	
	Health Insurance		7	$4,200		$29,400	
	Unemployment Insurance		$489,066	2.10%		$10,270	
	Worker's Compensation		$489,066	1.03%		$5,037	
	Retirement		$489,066	14.00%		$68,469	
		Fringe benefits total					**$150,591**
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**						
	SunGard (Consulting Services)					$144,000	
	Edustructures (Zone Integration Server)					$253,400	
	Edustructures (ZIS Consulting Services)					$155,000	
	Metis Associates, Inc. (Consulting Services)					$854,438	
	Consultant (TBD) - NEDM, NCES, NIEM					$175,000	
	Trusted Broker (UALR Contract)					$100,000	
	Enspire (Visual Analytics)					$50,000	
	Data Quality Rules Engine (TBD)					$37,500	

	DecisionEd (Cognos Integration Services)					$262,500	
	Consultant (TBD) NEDM/DB Design					$75,000	
	Training Services (TBD) (Data Stewards)					$25,000	
		Contractual total					**$2,131,838**
7	**Construction**						
	None					$0	
		Construction total					**$0**
8	**Other**						
	None					$0	
		Other total					**$0**
9	**Total direct costs**						**$2,780,995**
10	**Indirect costs (total * 10%)**						**$278,099**
12	**Grand total**						**$3,059,094**

ADE 2009 SLDS Grant Application
4. (ED 524) Section C -Itemized Budget

Year 1 - Non-Federal Funds							
1	**Personnel**						
	Position			**FTE**		**Value**	**Totals**
	Asst Commissioner	James Boardman	0.3	$100,450	per year	$30,135	
	Asst Commissioner	Bill Goff	0.1	$100,450	per year	$10,045	
	Proj Mgr, SLDS PMO	Neal Gibson (*)	0.5	$71,750	per year	$35,875	
	Proj Mgr, SLDS PMO	Cody Decker	0.5	$71,750	per year	$35,875	
	Fin Applic Manager	Kathleen Crain	0.1	$73,800	per year	$7,380	
	State Rep Manager	Clara Knox	0.1	$55,350	per year	$5,535	
	APSCN Coordinator	Danita Hyrkas	0.2	$66,625	per year	$13,325	
	SMS Manager	Carmen Jordan	0.2	$66,625	per year	$13,325	
	Dir. Accountability	Charity Smith	0.1	$100,450	per year	$10,045	
	Division Leader	Melanie Bradford	0.2	$73,800	per year	$14,760	
	Cognos, Dash/ScoreC	Carrie Leonard	0.75	$60,000	per year	$45,000	
	Window & SQL Server	Chris Berry	0.2	$60,000	per year	$12,000	
	ODQ Lead	Jeremy Kratz	0.5	$60,000	per year	$30,000	
	ADHE (ARC)	TBD	0.5	$70,000	per year	$35,000	
	(*) See explanation in Project Narrative (e) for use of this resource.						
		Personnel total	4.25				**$298,300**
2	**Fringe benefits**						
	Social Security		$298,300	7.65%		$22,820	
	Health Insurance		4.25	$4,200		$17,850	
	Unemployment Insurance			2.10%		$0	
	Worker's Compensation		$298,300	1.03%		$3,072	
	Retirement		$298,300	14.00%		$41,762	
		Fringe benefits total					**$91,769**
3	**Travel**						
	Travel to other professional conferences for dissemination purposes						
		2 ADE staff to 3 mtgs. = 6 flights @ $550				$3,300	
		1 night lodging @ $200 x 3 trips x 2 staff				$1,200	
		6 days of food @ $50 x 2 people				$600	
		ground transportation				$300	
		Travel total					**$5,400**
4	**Equipment**						
	None					$0	
		Equipment total					**$0**
5	**Supplies**						
	None					$0	
		Supplies total					**$0**
6	**Contractual**						
	SunGard (eSchoolPLUS Site License)					$1,132,481	
	Data Processing/Access Services - DIS					$500,000	
		Contractual total					**$1,632,481**

ADE 2009 SLDS Grant Application
4. (ED 524) Section C -Itemized Budget

7	**Construction**						
	None					$0	
		Construction total					**$0**
8	**Other**						
	None					$0	
		Other total					**$0**
9	**Total direct costs**						**$2,027,950**
10	**Indirect costs (total * 10%)**						**$202,795**
12	**Grand total**						**$2,230,745**

Year 2 - Non-Federal Funds							
1	**Personnel**						
			FTE	**Rate**		**Value**	**Totals**
	Position						
	Asst Commissioner	James Boardman	0.3	$102,961	per year	$30,888	
	Asst Commissioner	Bill Goff	0.1	$102,961	per year	$10,296	
	Proj Mgr, SLDS PMO	Neal Gibson (*)	0.5	$73,544	per year	$36,772	
	Proj Mgr, SLDS PMO	Cody Decker	0.5	$73,544	per year	$36,772	
	Fin Applic Manager	Kathleen Crain	0.1	$75,645	per year	$7,565	
	State Rep Manager	Clara Knox	0.1	$56,734	per year	$5,673	
	APSCN Coordinator	Danita Hyrkas	0.2	$68,291	per year	$13,658	
	SMS Manager	Carmen Jordan	0.2	$68,291	per year	$13,658	
	Dir. Accountability	Charity Smith	0.1	$102,961	per year	$10,296	
	Division Leader	Melanie Bradford	0.2	$73,800	per year	$15,129	
	Cognos, Dash/ScoreC	Carrie Leonard	0.75	$61,500	per year	$46,125	
	Window & SQL Server	Chris Berry	0.2	$61,500	per year	$12,300	
	ODQ Lead	Jeremy Kratz	0.5	$61,500	per year	$30,750	
	ADHE (ARC)	TBD	0.5	$71,750	per year	$35,875	
	(*) See explanation in Project Narrative (e) for use of this resource.						
		Personnel total	4.25				**$305,758**
2	**Fringe benefits**						
	Social Security		$305,758	7.65%		$23,390	
	Health Insurance		4.25	$4,200		$17,850	
	Unemployment Insurance		$305,758	2.10%		$6,421	
	Worker's Compensation		$305,758	1.03%		$3,149	
	Retirement		$305,758	14.00%		$42,806	
		Fringe benefits total					**$93,617**
3	**Travel**						
	Travel to other professional conferences for dissemination purposes						
		2 ADE staff to 3 mtgs. = 6 flights @ $550				$3,300	
		1 night lodging @ $200 x 3 trips x 2 staff				$1,200	
		6 days of food @ $50 x 2 people				$600	
		ground transportation				$300	
		Travel total					**$5,400**
4	**Equipment**						
	None					$0	
		Equipment total					**$0**
5	**Supplies**						
	None					$0	
		Supplies total					**$0**
6	**Contractual**						
	SunGard (eSchoolPLUS Site License)					$30,250	
	Data Processing/Access Services - DIS					$800,000	
		Contractual total					**$830,250**
7	**Construction**						
	None					$0	
		Construction total					**$0**

8	**Other**						
	None					$0	
		Other total					**$0**
9	**Total direct costs**						**$1,235,025**
10	**Indirect costs (total * 10%)**						**$123,502**
12	**Grand total**						**$1,358,527**

ADE 2009 SLDS Grant Application
4. (ED 524) Section C - Itemized Budget

Year 3 - Non-Federal Funds							
1	**Personnel**						
			FTE	**Rate**		**Value**	**Totals**
	Position						
	Asst Commissioner	James Boardman	0.3	$105,535	per year	$31,661	
	Asst Commissioner	Bill Goff	0.1	$105,535	per year	$10,554	
	Proj Mgr, SLDS PMO	Neal Gibson (*)	0.5	$77,536	per year	$15,507	
	Proj Mgr, SLDS PMO	Cody Decker	0.5	$75,382	per year	$37,691	
	Fin Applic Manager	Kathleen Crain	0.1	$77,536	per year	$7,754	
	State Rep Manager	Clara Knox	0.1	$58,152	per year	$5,815	
	APSCN Coordinator	Danita Hyrkas	0.2	$69,998	per year	$14,000	
	SMS Manager	Carmen Jordan	0.2	$69,998	per year	$14,000	
	Dir. Accountability	Charity Smith	0.1	$105,535	per year	$10,554	
	Division Leader	Melanie Bradford	0.2	$75,382	per year	$15,507	
	Cognos, Dash/ScoreC	Carrie Leonard	0.75	$63,038	per year	$47,278	
	Window & SQL Server	Chris Berry	0.2	$63,038	per year	$12,608	
	ODQ Lead	Jeremy Kratz	0.5	$63,038	per year	$31,519	
	ADHE (ARC)	TBD	0.5	$73,544	per year	$36,772	
	(*) See explanation in Project Narrative (e) for use of this resource.						
		Personnel total	4.25				**$313,401**
2	**Fringe benefits**						
	Social Security		$313,401	7.65%		$23,975	
	Health Insurance		4.25	$4,200		$17,850	
	Unemployment Insurance		$313,401	2.10%		$6,581	
	Worker's Compensation		$313,401	1.03%		$3,228	
	Retirement		$313,401	14.00%		$43,876	
		Fringe benefits total					**$95,511**
3	**Travel**						
	Travel to other professional conferences for dissemination purposes						
		2 ADE staff to 3 mtgs. = 6 flights @ $550				$3,300	
		1 night lodging @ $200 x 3 trips x 2 staff				$1,200	
		6 days of food @ $50 x 2 people				$600	
		ground transportation				$300	
		Travel total					**$5,400**
4	**Equipment**						
	None					$0	
		Equipment total					**$0**
5	**Supplies**						
	None					$0	
		Supplies total					**$0**
6	**Contractual**						
	SunGard (eSchoolPLUS Site License)					$312,000	
	Data Processing/Access Services - DIS					$850,000	
		Contractual total					**$1,162,000**
7	**Construction**						
	None					$0	
		Construction total					**$0**
8	**Other**						

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4. (ED 524) Section C - Itemized Budget

	None					$0	
		Other total					**$0**
9	**Total direct costs**						**$1,576,312**
10	**Indirect costs (total * 10%)**						**$157,631**
12	**Grand total**						**$1,733,943**