

# **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 # R384A100060**

Closing Date: NOV 19, 2009

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<b>Application for Federal Assistance SF-424</b>		Version 02
* 1. Type of Submission		
<input type="checkbox"/> Preapplication	* 2. Type of Application: * If Revision, select appropriate letter(s):	
<input checked="" type="checkbox"/> Application	<input checked="" type="checkbox"/> New	
<input type="checkbox"/> Changed/Corrected Application	<input type="checkbox"/> Continuation	* Other (Specify)
	<input type="checkbox"/> Revision	
* 3. Date Received:		4. Applicant Identifier:
12/4/2009		
5a. Federal Entity Identifier:		* 5b. Federal Award Identifier:
		NA
<b>State Use Only:</b>		
6. Date Received by State:		7. State Application Identifier:
<b>8. APPLICANT INFORMATION:</b>		
* a. Legal Name: Arizona Department of Education		
* b. Employer/Taxpayer Identification Number (EIN/TIN):		* c. Organizational DUNS:
866004791		804746097
<b>d. Address:</b>		
* Street1:	1535 West Jefferson	
Street2:		
* City:	Phoenix	
County:		
State:	AZ	
Province:		
* Country:	USA	
* Zip / Postal Code:	85007	
<b>e. Organizational Unit:</b>		
Department Name:		Division Name:
Arizona Department of Education		Information Technology
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>		
Prefix:	* First Name:	Donald
Middle Name:		

\* Last Name: Houde

Suffix:

Title: Chief Information Officer

Organizational Affiliation:

Arizona Department of Education

\* Telephone  
Number:

(602)364-1368

Fax Number:

\* Email: DONALD.HOUDE@AZED.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.):**

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

Arizona Education Data Warehouse (AEDW)

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: AZ-ALL

\* b. Program/Project: AZ-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	\$ 20000000
b. Applicant	\$
c. State	\$
d. Local	\$
e. Other	\$
f. Program	\$
Income	
g. TOTAL	\$ 20000000

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

a. This application was made available to the State under the Executive Order 12372 Process for review on .

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

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

Yes  No

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

\*\* I AGREE

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

**Authorized Representative:**

Prefix: \* First Name: Margaret

Middle Name:

\* Last Name: Dugan

Suffix:

Title: Deputy Superintendent of Public Instruction

\* Telephone Number: (602)364-2339 Fax Number:

\* Email: MARGARET.DUGAN@AZED.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:
Arizona 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

Table with 7 columns: Budget Categories, Project Year 1(a), Project Year 2 (b), Project Year 3 (c), Project Year 4 (d), Project Year 5 (e), Total (f). Rows include Personnel, Fringe Benefits, Travel, Equipment, Supplies, Contractual, Construction, Other, Total Direct Costs, Indirect Costs, Training Stipends, and Total Costs.

\*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: 7/1/2009 To: 6/30/2010 (mm/dd/yyyy)

Approving Federal agency: [X] ED [ ] Other (please specify): \_\_\_\_\_ The Indirect Cost Rate is 13.5%

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

[X] 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%



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

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:  
 Arizona 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	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2. Fringe Benefits	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
3. Travel	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
4. Equipment	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
5. Supplies	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
6. Contractual	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
9. Total Direct Costs (lines 1-8)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
10. Indirect Costs	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0



## 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:** Margaret Dugan

**Title:** Deputy Superintendent of Public Instruct

**Date Submitted:** 10/28/2009

### Disclosure of Lobbying Activities

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

<b>1. Type of Federal Action:</b> <input type="checkbox"/> Contract <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Loan <input type="checkbox"/> Loan Guarantee <input type="checkbox"/> Loan Insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> Bid/Offer/Application <input checked="" type="checkbox"/> Initial Award <input type="checkbox"/> Post-Award	<b>3. Report Type:</b> <input checked="" type="checkbox"/> Initial Filing <input type="checkbox"/> Material Change <b>For Material Change only:</b> Year: 0 Quarter: 0 Date of Last Report:
<b>4. Name and Address of Reporting Entity:</b> <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier, if known: 0 Name: Arizona Department of Education Address: 1535 West Jefferson City: Phoenix State: AZ Zip Code + 4: 85007-	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b> Name: Address: City: State: Zip Code + 4: -  Congressional District, if known:	
<b>6. Federal Department/Agency:</b> US Department of Education	<b>7. Federal Program Name/Description:</b> Statewide Longitudinal Data System  CFDA Number, if applicable: 84.384A	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b> \$0	
<b>10. a. Name of Lobbying Registrant</b> (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: -	<b>b. Individuals Performing Services</b> (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: -	
<b>11.</b> 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: Margaret Title: Dugan Applicant: Arizona Department of Education Date: 10/28/2009	
<b>Federal Use Only:</b>		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.

<b>APPLICANT'S ORGANIZATION</b>
---------------------------------

Arizona Department of Education
---------------------------------

<b>PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE</b>
--

Prefix:	First Name: Margaret	Middle Name:
Last Name: Dugan		Suffix:
Title: Deputy Superintendent of Public Instruct		

Signature:	Date:
_____	10/28/2009

ED 80-0013

03/04

**SUPPLEMENTAL INFORMATION  
REQUIRED FOR  
DEPARTMENT OF EDUCATION GRANTS**

**1. Project Director:**

Prefix: \* First Name: Middle Name: \* Last Name: Suffix:  
Donald Houde

Address:

\* Street1: 1535 West Jefferson, Bib #17  
Street2:  
\* City: Phoenix  
County:  
\* State: AZ\* Zip / Postal Code: 85007 \* Country: USA

\* Phone Number (give area code) Fax Number (give area code)  
(602)364-1368

Email Address:

DONALD.HOUDE@AZED.GOV

**2. Applicant Experience**

Novice Applicant  Yes  No  Not applicable

**3. Human Subjects Research**

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

Yes  No

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

Yes Provide Exemption(s) #:

No Provide Assurance #, if available:

**Please attach an explanation Narrative:****Attachment:**

Title :

File :

# **Project Narrative**

## **Project Narrative - Project Abstract**

Attachment 1:

Title: **Project Narrative\_Project Abstract** Pages: **1** Uploaded File: **Project Narrative\_Project Abstract.pdf**

## **Abstract: Arizona Education Data Warehouse (AEDW)**

Arizona will improve, expand, and broaden the scope of its now-operational (grades P-12) Arizona Education Data Warehouse (AEDW) Student Longitudinal Data System (SLDS). The vision of this far-reaching project is to support the career readiness of students for the workforce and provide a foundation to enable them to achieve their life goals. Major goals in support of this vision are: to improve every student's educational experience and raise achievement levels from preschool through postsecondary education; to significantly broaden linkages between teacher and student information by restructuring and improving existing systems; to improve Arizona's existing discipline and non-violence intervention solution; to create a master data management system to support the wide array of education-related programs and support services; to provide a 360-degree view of education financial data; to safeguard personal information by developing a statewide identity management and single sign-on system with identity federation; and to establish a comprehensive data governance and training organization managing ongoing content and technical training. In support of these goals, this project will produce five major outcomes:

### Expanded Data Content Scope and Provision of Supporting Instructional Tools and Technology.

Expansion of AEDW scope and instruction is necessary for nearly all system capabilities and elements of the SLDS. Every enhanced education-related service and program offered by Arizona requires amplified data about participants, students, organizations and facilities. To achieve this and to meet the challenges of Arizona's educational environment data collection processes, existing inadequate student information systems, financial data systems, and identity management systems will be restructured and enhanced.

Improvement of Student and School Performance Measures. To understand whether an individual child is making acceptable progress in accruing needed academic skills, Arizona will employ the Colorado Growth Model (CGM). The current academic progress of individual students will be measured relative to the progress of their academic peers through an intergovernmental agreement. The system will support interoperability with agencies and institutions, both within the state and outside the state.

Expansion of the Data Warehouse. The existing AEDW uses student and school data elements and makes available 60 student-related measures via a web-based portal. All new data from outcomes 1 and 2 must still be developed and added.

Creation of Data Governance, Training and Communications Organizations. Outcomes 1 through 3 will double the number of data providers, the content and volume of data, and the number of information measures. A rigorous change control organization and process will be created to bring about more reliable information in support of education decisions, by assessing and ensuring the quality and the integrity of data in the system, providing extensive training and communications methodology to the user community.

Expansion of Technology Infrastructure. To achieve Arizona's desired outcomes requires additional desktop support, workstation and UI tools, servers and databases, bandwidth, and enhanced security and data administration. This expansion will result in significant improvements in communications with higher education data systems, and enhance both data exchange and interoperability among a variety of agencies and institutions.

# Project Narrative

## Project Narrative - Project Narrative

Attachment 1:

Title: **Project Narrative** Pages: **30** Uploaded File: **Project Narrative.pdf**



**a. Need for Warehouse Project**

The Arizona Department of Education's (ADE) education reform initiatives are focusing on four areas: driving excellence in teaching by recruiting, developing, retaining, rewarding and equitably distributing quality teachers and principals; providing LEAs instructional support tools, and technology that enable teachers to target and measure improvement at individual student levels; adopting standards and assessments for success in college or the workplace that include international benchmarks; and supporting struggling schools by providing information and insight on issues which affect academic achievement. This project will build upon existing technological investments to increase the quality and content of data, resulting in improved student achievement and measures of success throughout Arizona's education ecosystem.

ADE has dedicated significant resources for the past three years to re-chart Arizona's education data management roadmap and an enterprise business intelligence solution. At the heart of the solution is the preschool to high school (grades P-12) Arizona Education Data Warehouse (AEDW). In support of the AEDW, core organizational structures were established to manage the critical areas of governance, training, information security, analysis, project management, operations, infrastructure management, quality assurance, end-user support, and professional solutions development.

The AEDW will be expanded in content and technology to match the state's educational initiatives. This requires restructuring the source data collection systems which provide AEDW data content, enhancing data training and governance, and providing additional student and school performance measures. Project needs are described in outcome order:

- Outcome 1: Expand Data Content Scope and Provide Instructional Support Tools and Technology
- Outcome 2: Improve Student and School Performance Measures
- Outcome 3: Expand the Data Warehouse
- Outcome 4: Establish Data Governance, Training and Communications
- Outcome 5: Expand Technology Infrastructure

All outcomes take into consideration the requirements of state fiscal stabilization fund phase II. Implementation of the outcomes provides Arizona with information to achieve equity in teacher distribution, support struggling schools and support standards and assessment requirements.

**Expand Data Content Scope and Provide Instructional Support Tools and Technology**

***EXPAND STUDENT DATA COLLECTION AND SOURCES***

ADE oversees public education and provides education-related and support services to a very wide population. Apart from the normal business streams of schools and support programs for P-12 students, ADE provides services and support to 0-5 year-old children, juveniles in secure care, families, adults, college students, community groups and seniors—as well as to Bureau of Indian Education (BIE) schools. (*see figure 1.1*)

Each of the services and programs supported by ADE requires basic data about the participants, students, organizations and facilities where these are offered, along with the relationship between

the providing and parent organizations. ADE needs to know what education and related services are being provided at each facility, to whom, how these offerings are funded, and the physical characteristics of all facilities used in the educational arena. Information is collected about many of these elements, but the data collection processes, student information systems, financial data, and identity management systems are products of the 1990 public education setting and must be restructured and enhanced to meet the challenges of Arizona's 21<sup>st</sup> century educational environment.

The current AEDW is in development and includes measures about K-12 student memberships in schools, participation in SPED, ELL and support programs, AIMS achievements, attendance and other funding factors. For AEDW to be expanded to include all birth-to-work data (P-20 and early childhood), development of production data systems to collect, process, store, and manage the extended data are needed. This also requires unique identity management, development (or redevelopment) of collection systems, enhanced data and physical security, re-architecting the master data management components, and creation of a state-offered student management system option for small LEAs.

In particular, the data collection system processes and structures need comprehensive analysis and structuring to provide state education agencies with all data necessary for education management from birth to work. This work must be completed so that the SLDS project can continue to absorb the data and create measures around them. The key areas of data collection that need restructuring include student data (birth to work: early childhood, preschool, K-12, college, post-college), financial data systems (state school financing, state and federal grants management), teacher data (certification and highly-qualified attribution, as well as personnel identification and tracking), and a suite of master data management areas (school facilities, nutrition sites, business licensing, and other funding recipients).

Besides the regular teacher data collection systems, we must be able to link students and teachers, by grade or course. This data area will include courses taken by high school students in vocational and community colleges, plus the teachers of those courses and resulting grades. The course information will be available to ECAP planning. Course achievement will be linked with standardized assessment results to analyze the level of congruity for various student populations.

Preschool and early childhood data should have the same focus as K-12 student data. ADE doesn't currently collect non-state-funded preschool student and facility data, such as Head Start programs and private preschools on public district sites. This data is critical to understanding the impacts of early childhood and preschool education on kindergarten attainments and the first standardized state assessment taken in grade three. Later, longitudinal data could help determine the impact of early childhood and preschool programs on later stages of the education pipeline.

There are data collection requirements for K-12 tribal students, on and off the reservations. During the K-12 sequence, many of the reservation students change from BIE-controlled schools to Arizona public schools—and vice versa. The difficulty here is not only tracking achievement from school to school, but also targeting educational interventions for those struggling with cultural and environment changes between the two. Longitudinal data sharing between BIE and ADE would help eliminate risks for dropping out of both systems and encourage students to achieve attainable goals by supporting their progress through ECAPs.

Other mobile student groups require additional data collection, enhanced measures, and inter-agency sharing (potentially via WICHE): migrants (using the new M6), inter-state students from

border areas, secure care (detention and corrections), and students from active military families (through MIC3). Much like the tribal students, these children move from one educational situation to another, some regularly. Many of these students are at-risk. Secure care students may go from a regular public school to a rehab program to a secure care facility and although there is required academic record sharing, their achievement results and educational plans may not follow as quickly. It is incumbent upon the state to not let these children fall by the wayside because of frequent transitions. We must be able to track them continuously and provide academic progress along their educational migrations.

Along with the elementary and secondary student course data, we need to collect post-secondary student college and readiness evaluations, post-secondary attainment, and student remediation needs. Remediation coursework in post-secondary level is an indicator of gaps between secondary and post secondary. Results of remediation studies will enable better targeted instruction for high school students.

#### ***EXPAND STUDENT ENVIRONMENTAL DATA***

##### *Expand discipline and school safety data*

The AZ SAFE system was developed with a federal grant and provides LEAs with information needed to improve school safety and to meet federal and state reporting requirements. All public schools in Arizona are required to report safety-related incident and disciplinary action data to ADE through AZ SAFE, beginning this school year (FY 2010).

AZ SAFE produces reports that provide school administrators with the information needed to evaluate individual student and group behavior, design school-wide and individual student interventions and strategies, and improve disciplinary practices. AZ SAFE has also improved the ability of ADE to accurately report information to the Education Data Exchange Network (EDEN/EDFACT) and to easily accommodate the frequent changes to these requirements without imposing any additional burdens on schools.

To provide a complete perspective of students' disciplinary infractions, data in AZ SAFE needs to be augmented by data on juvenile referrals, detention, and adjudication by the county juvenile courts. A need for further research regarding juvenile transitions between public schools and secure care surfaced from discussions with Arizona Supreme Court juvenile justice authorities and analysis of their data. In 2008, 46,750 juveniles ages 8-18 were referred to authorities for diversion, detention, or adjudication. Though not all were public school students, the referred juveniles constitute 4.91% of students in public schools from this age group in 2008. Of the number referred, 25% were detained.

This court data and data recommendations from pilot schools that used AZ SAFE in 2009 require enhancements to the system. The enhancements are in line with the federal direction of improving crime reporting and data-driven decisions by the school, including data augmentation, ad hoc reporting tools, and auto-generation of parent notification letters. Additional reporting is needed to improve campus safety with real-time reporting containing suspension and expulsion data, as well as other usability tools.

Discussions in the numerous statewide pre-implementation workshops indicated the need for research on perceptions of school climate. Also, as 2010 is the first year of statewide data collection, an audit of the data collected is needed to improve data quality.

The changes will require extensive school-level professional development and technical assistance. Part of this work will be for training on proper and improper use of incident and disciplinary action data and part will be to support school personnel in effective utilization of data to improve school climate and safety.

*Collect student home environment factors*

Several initiatives are in development for on-line and home delivery of curriculum, particularly for rural and proximity-challenged students. To determine delivery options and methods, ADE will need to know what kind of technology is available to students in their homes. In addition, student economic factors that are needed to determine targeted programs and other support opportunities are now collected sporadically at the school level and submitted to ADE in aggregate. We will need to establish a data collection process and protocol for both kinds of data at the LEA and SEA level and include the data within the new student data collection system. Once in the production systems, we will be able to load it to the data warehouse, measure it by a variety of criteria, and use it as criteria in other measures such as AIMS achievements.

***IMPLEMENT ECAP (EDUCATION AND CAREER ACTION PLAN) SYSTEM***

The Arizona Statewide Education and Career Action Plan (ECAP) will be an individualized planning process to help about 250,000 high school students develop individual career aspirations and goals, and to examine how their curriculum choices may affect their goal achievement. In an ECAP system, students identify their goals and the career counselor and/or teachers respond with an action plan of required coursework and study. ECAP will be accessible to students in grades 9-12, parents, school career counselors and teachers. It will combine, for each student, his/her interests, abilities, talents, academic planning and progress toward career goals into a personalized education roadmap.

Teachers will monitor students' academic performance and response to instructional and behavioral intervention in view of the student career plans and intercede if a student falters. Students may adjust the ECAP as they mature and evolve throughout their high school years. After three to four years' usage, ECAP will be able to provide data on student preparedness for civil or military careers. Data from ECAP will be incorporated in the AEDW to support measures on readiness and ECAP process effectiveness.

Given student mobility within the Arizona public schools, the ECAP process can be successful only if managed by a rigorous enterprise class web-based solution. In the future, the usage of this system can be extended to post-secondary students.

***ENHANCE ACQUISITION OF LEA DATA***

Current acquisition of data from LEAs is done through submission of data transaction files via batch submission every 20 days. This means that there is a significant delay in the accuracy of current data stored at ADE, which impacts accuracy of the payment and reporting processes. Both ADE and the LEA spend unnecessary resources on data corrections. The implementation of near-time data acquisition from LEA SMS systems will be of benefit to both LEAs and ADE. It

