

# **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 # R384A100046**

Closing Date: DEC 04, 2009

# **\*\*Table of Contents\*\***

## **Forms**

1. Application for Federal Assistance (SF-424)	e1
2. Standard Budget Sheet (ED 524)	e5
3. SF 424B - Assurances Non-Construction Programs	e7
4. Disclosure of Lobbying Activities	e9
5. ED 80-0013 Certification	e10
6. Dept of Education Supplemental Information for SF-424	e11

## **Narratives**

1. Project Narrative - (Project Narrative - Project Abstract...)	e12
Project Abstract	e13
2. Project Narrative - (Project Narrative - Project Narrative...)	e14
Project Narrative	e15
3. Project Narrative - (Project Narrative - Appendix A, Optional Attach.....)	e42
Appendix A Optional Attachments	e43
4. Project Narrative - (Project Narrative - Appendix B Resumes of Key P.....)	e48
Appendix B Resumes	e49
5. Project Narrative - (Project Narrative - Appendix C Current Status o.....)	e106
Appendix C	e107
6. Project Narrative - (Project Narrative - Appendix D Letters of Support...)	e111
Appendix D Letters of Support	e112
7. Budget Narrative - (Budget Narrative - Budget Justification...)	e123
Budget Narrative	e124
8. Budget Narrative - (Budget Narrative - ED 524 Section C Spreadsheet...)	e136
ED 524	e137

This application was generated using the PDF functionality. The PDF functionality automatically numbers the pages in this application. Some pages/sections of this application may contain 2 sets of page numbers, one set created by the applicant and the other set created by e-Application's PDF functionality. Page numbers created by the e-Application PDF functionality will be preceded by the letter e (for example, e1, e2, e3, etc.).

**Application for Federal Assistance SF-424**

Version 02

* 1. Type of Submission	* 2. Type of Application:* If Revision, select appropriate letter(s):	
<input type="checkbox"/> Preapplication	<input checked="" type="checkbox"/> New	
<input checked="" type="checkbox"/> Application	<input type="checkbox"/> Continuation	* Other (Specify)
<input type="checkbox"/> Changed/Corrected Application	<input type="checkbox"/> Revision	

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

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: Idaho State Board of Education

* b. Employer/Taxpayer Identification Number (EIN/TIN):	* c. Organizational DUNS:
826000952	825201189

**d. Address:**

* Street1:	650 W. State Street
Street2:	
* City:	Boise
County:	
State:	ID
Province:	
* Country:	USA
* Zip / Postal Code:	83702

**e. Organizational Unit:**

Department Name:	Division Name:

**f. Name and contact information of person to be contacted on matters involving this application:**

Prefix:	* First Name:	Selena
Middle Name:		

\* Last Name: Grace

Suffix:

Title: Director of Research

Organizational Affiliation:

Idaho State Board of Education

\* Telephone Number: (208)332-1592 Fax Number: (208)334-2632

\* Email: SELENA.GRACE@OSBE.IDAHO.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.):**

The state of Idaho

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

Idaho Longitudinal Education Analysis Data System (Idaho-LEADS)

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: ID-ALL

\* b. Program/Project: ID-ALL

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

**Attachment:**

Title :

File :

**17. Proposed Project:**

\* a. Start Date: 3/1/2010

\* b. End Date: 3/1/2013

**18. Estimated Funding (\$):**

a. Federal	\$ 20777090
b. Applicant	\$ 0
c. State	\$ 5202451
d. Local	\$ 0
e. Other	\$ 0
f. Program Income	\$ 0
g. TOTAL	\$ 25979541

**\* 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 11/5/2009.

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: Selena

Middle Name:

\* Last Name: Grace

Suffix:

Title: Director of Research

\* Telephone Number: (208)332-1592 Fax Number: (208)334-2632

\* Email: SELENA.GRACE@OSBE.IDAHO.GOV

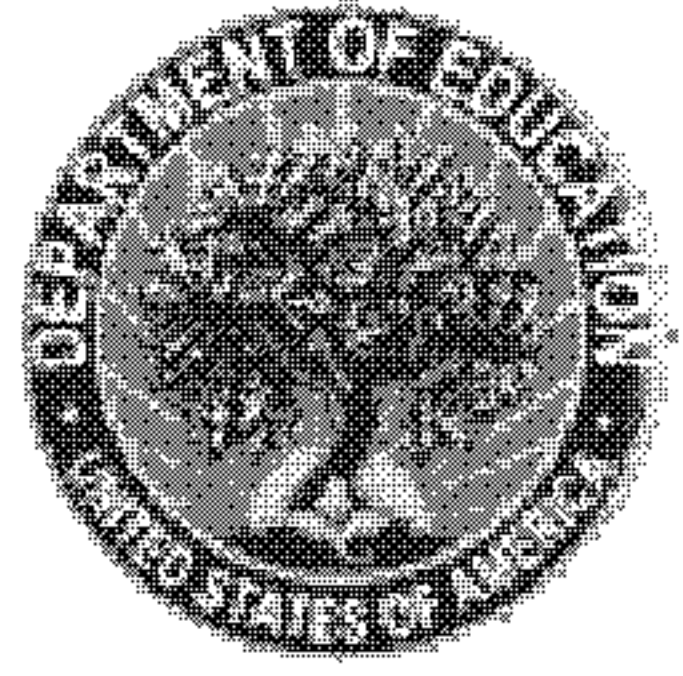
\* Signature of Authorized Representative: \* Date Signed:

**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: Idaho State Board 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

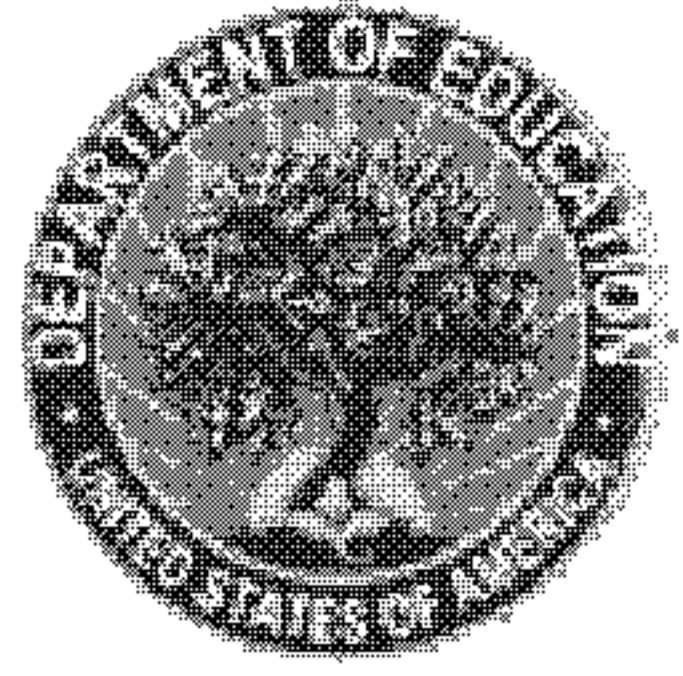
(2) If yes, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement: From: 7/1/2007 To: 6/30/2011 (mm/dd/yyyy)

Approving Federal agency: [X] ED [ ] Other (please specify): \_\_\_\_\_ The Indirect Cost Rate is 14%

(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:  
Idaho State Board 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:** Selena Grace

**Title:** Director of Research

**Date Submitted:** 12/03/2009

### 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 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 type="checkbox"/> Initial Award <input type="checkbox"/> Post-Award	<b>3. Report Type:</b> <input 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: Address: City: State: Zip Code + 4: -  <b>Congressional District, if known:</b>	<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: -  <b>Congressional District, if known:</b>	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable:	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known: \$0</b>	
<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: Selena Grace Title: Director of Research Applicant: Idaho State Board of Education Date: 12/03/2009	
<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.

### APPLICANT'S ORGANIZATION

Idaho State Board of Education

### PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix:                      First Name: Selena    Middle Name:

Last Name: Grace    Suffix:

Title: Director of Research

Signature: \_\_\_\_\_    Date: 12/03/2009

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

**1. Project Director:**

Prefix: \* First Name: Middle Name: \* Last Name: Suffix:  
Selena Grace

Address:

\* Street1: 650 W. State Street  
Street2:  
\* City: Boise  
County:  
\* State: ID \* Zip / Postal Code: 83702 \* Country: USA

\* Phone Number (give area code) (208)332-1592      Fax Number (give area code) (208)333-2632

Email Address:

SELENA.GRACE@OSBE.IDAHO.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 Abstract** Pages: **1** Uploaded File: **C:\Documents and Settings\sgrace\Desktop\Submission Documents\Abstract.doc**

## **Abstract**

Idaho plans to expand its current K-12 SLDS efforts by creating a data system that spans the P-20 and workforce pipeline through the establishment of the Idaho Longitudinal Education Analysis Data System (Idaho-LEADS). Idaho began streamlining its K-12 reporting requirements by evaluating the current data management infrastructure. This evaluation resulted in the creation of a unique student identifier and the consolidation of agency data collection and management through an enterprise portal and directory system. We are currently in the process of building a K-12 dimensional data warehouse and working diligently to provide stakeholders (i.e., students, parents, teachers, school and district leaders, state officials) with the ability to analyze, aggregate, and utilize relevant student-level information to identify trends and share best practices.

The State Board of Education (SBOE) is the SEA for Idaho's P-20 public education system. As the policy-making body for all public education in Idaho, the SBOE has the capacity to broadly impact the entire educational pipeline. The SBOE will coordinate efforts to meet the requirements and proposed outcomes for this grant. Idaho intends to participate in a pilot cross-state effort to establish a data exchange sharing K-12 and postsecondary education and workforce data. Other states to be included are Washington, Oregon, and Hawaii, and this coordination will be managed through the Western Interstate Commission for Higher Education (WICHE). Idaho has also collaborated with the state of Oregon on the development of a data utilization training program.

To implement Idaho-LEADS, our proposal includes nine outcomes aligned with the required seven capabilities and twelve elements. These outcomes will expand our current K-12 SLDS efforts, known as the Idaho Systems for Educational Excellence (ISEE), to include a P-20 and workforce data system:

1. Establish policies and governance structure to support P-20 and workforce data system
2. Integrate current statewide Education ID application into the public postsecondary systems
3. Develop postsecondary data warehouses, a centralized P-20 and workforce data warehouse and an associated reporting and analysis system based on the P-20 and workforce data warehouse
4. Align the Division of Professional-Technical Education's 10 System with State Department of Education's (SDE) application rewrite
5. Deploy web services to facilitate the exchange of data across agencies and states
6. Establish a K-12 Learning Management System to support formative assessments and curriculum management
7. Create a statewide K-12 data utilization training program (teaching teachers and administrators how to use data to set measurable goals and then track progress)
8. Create web widgets and tools to provide targeted, appropriate information to stakeholders
9. Develop pilot multi-state data exchange

# Project Narrative

## Project Narrative - Project Narrative

### Attachment 1:

Title: **Project Narrative** Pages: **27** Uploaded File: **C:\Documents and Settings\sgrace\Desktop\Submission Documents\Project Narrative.doc**

## **Project Narrative**

### ***A. Need For Project***

#### **Demographics and Organization of Idaho**

Idaho is the nation's thirteenth largest state geographically, covering 83,557 square miles. However, Idaho is ranked 41<sup>st</sup> in the nation for population, with 1.3 million residents. Thirty-five of the forty-four counties are defined as rural (a county in which the largest town or city has fewer than 20,000 residents). Idaho is a state with two time zones, with limited highway infrastructure due to the ruggedness of the mountain ranges, and where 63% of the state is federal lands (the majority of those inaccessible). Nevertheless, in December 2007 the U.S. Census Bureau named Idaho as the fourth fastest growing state in the nation. Idaho is divided into six educational regions with more than 630 K-12 schools operating within those regions. Idaho has eight public postsecondary institutions and three private. Most of the postsecondary institutions are located in urban areas.

The Idaho Constitution provides that the general supervision of the state educational institutions and the public school system of the State of Idaho shall be vested in the State Board of Education (SBOE). The Idaho educational system, consisting of the diverse agencies, institutions, school districts, and public charter schools governed by the SBOE, delivers public primary, secondary, and postsecondary education, training, rehabilitation, outreach, information, and research services throughout the state. These public organizations collaborate to provide educational programs and services that are high quality, readily accessible, relevant to the needs of the state, and delivered in the most efficient manner. The SBOE is responsible for defining the limits of instruction in the educational institutions supported in whole or in part by the state, and for the prevention of wasteful duplication of effort in the educational institutions. This broad educational oversight by the SBOE provides an ideal structure to implement and oversee the proposed Idaho-LEADS, a P-20 and workforce data system.

#### **Current Status and Capacity to Use Data**

Idaho has one of the least developed statewide longitudinal data systems in the nation. According to the Data Quality Campaign 2009 Annual Survey of the Ten Essential Elements of a Longitudinal Data System, Idaho employs one of the ten essential elements. Idaho lacks the ability to use longitudinal data to support educational improvement efforts, resulting in the inability to answer key questions regarding the educational processes.

Idaho is a local control state, with each Local Education Agency (LEA) selecting and operating independent Student Information Systems (SIS); this paradigm creates a heterogeneous K-12 landscape with many districts maintaining critical records only in spreadsheets or homegrown databases. The State Department of Education (SDE) is in the early stages of developing a K-12 data warehouse (under existing IES grant 84.372A). The project team has determined that the first steps in that effort are to identify the crucial common data elements, build a traditional normalized data model for data collection, and develop processes for extracting the required data from the various district systems and loading it into that single normalized model. These steps are under way. This effort will be expanded to incorporate the limited amount of pre-kindergarten data available into this data collection model, creating a P-12 database. This

database will then form the foundation for the development of the dimensional P-12 data warehouse.

The postsecondary educational system is similar to the K-12 system in that there are four different Enterprise Resource Planning (ERP) systems being operated among the eight state supported institutions. The systems include various levels of student information, finance, and human resource components. Most of those institutions lack a data warehouse and the associated benefits of business intelligence capabilities. Of these institutions, Boise State University is the only institution that has a data warehouse component nearing completion. Idaho State University is implementing an enterprise data warehouse as part of its new ERP implementation.

### **Current Improvement Efforts**

Our current efforts are funded through a combination of state and IES resources. Under the current IES grant, the SDE is developing a K-12 SLDS, the Idaho Systems for Educational Excellence (ISEE). In recognition that ISEE is the foundation for a P-20 and workforce data warehouse, our data system architecture is being developed to incorporate key features to support student-level and teacher data across agencies and time (see Appendix A, Figure 1). Funding the nine outcomes proposed in this grant will enable our proposed data system to meet the seven capabilities and the twelve elements.

Current state-funded projects include:

- Statewide portal that will support a centralized statewide K-12 data collection mechanism and streamline data submission and review by all LEAs
- Authentication and authorization scheme that will ensure state and federal privacy regulation compliance and support single sign-on
- Teacher certification application rewrite, rebuilding the application in .Net to comply with our SLDS architecture and integrating Educational IDs (EDUID) for teachers
- Enrollment and attendance application rewrite that will refine the granularity of data collection to the individual student level for incorporation into the K-12 data system

Current IES grant-funded projects focus on these six K-12 areas:

- Enhanced Unique ID application; to create a system to assign and manage a unique Educational ID (EDUID) to identify all individuals involved in the K-12 educational system (i.e., students, teachers, administrators, etc.). This system will also facilitate linkage of student and teacher data, as well as enabling the collection and analysis of teacher specific education data.
- K-12 Longitudinal Data Warehouse; consisting of two primary components: a normalized data storage model is being developed to store person level information and all associated data for each individual. The model includes: Persons, Providers, Programs, and Evidence. Second, a dimensional data warehouse is being developed to support a reporting engine and associated data analytics.
- K-12 LEA data collection at state level; collect person level data at regular intervals from LEAs via standardized data exchange formats. This data will be imported into the K-12 longitudinal data warehouse.

- Support for LEAs to purchase, contract for, or internally develop any ETL (Extract, Transform, Load) capabilities needed to prepare their data to be imported into the K-12 longitudinal data system. This will streamline the data submittal process for LEAs.
- Deployment of the K-12 reporting and analysis system based on the Longitudinal Data Warehouse to examine and analyze educational results and trends over time. This will include development of standardized reports to fulfill federal reporting obligations such as EDFacts, and to identify effective teachers, schools, and programs to share best practices.
- Transcript system; Streamline and automate the movement of transcript information from LEAs to postsecondary institutions.

### **Required Data System Capabilities & Elements**

To expand our current SLDS efforts from a K-12 system to a P-20 and workforce system we have proposed nine outcomes in this grant request.

#### Proposed Outcomes:

1. Establish policies and governance structure to support P-20 and workforce data system
2. Integrate current statewide Education ID application into the public postsecondary systems
3. Develop postsecondary data warehouses, a centralized P-20 and workforce data warehouse and an associated reporting and analysis system based on the P-20 and workforce data warehouse
4. Align the Division of Professional-Technical Education's 10 System with SDE's application rewrite
5. Deploy web services to facilitate the exchange of data across agencies and states
6. Establish a K-12 Learning Management System to support formative assessments and curriculum management
7. Create a statewide K-12 data utilization training program (teaching teachers and administrators how to use data to set measurable goals and then track progress)
8. Create web widgets and tools to provide targeted, appropriate information to stakeholders
9. Develop pilot multi-state data exchange

Proposed outcomes are tied closely to the required seven capabilities and twelve elements outlined in section IV of the RFA, as well as the State Fiscal Stabilization Fund assurances. Increasing student achievement will require instructional and policy decisions based on evaluation of data gathered, enabling us to more effectively use limited educational resources. Idaho-LEADS will be designed to improve the quality of collaboration efforts among educational stakeholders by shifting from anecdotal discussion groups to fact-based decision-making processes. Idaho-LEADS will maximize opportunities for improvement by creating a chain of feedback loops at transitions along the educational pipeline (e.g. secondary to postsecondary, postsecondary to workforce). This will allow for analysis of educational outputs and provide the appropriate data to guide instruction and administrative policy changes.

Idaho's proposed outcomes will expand and blend a number of efforts currently underway to create the Idaho Longitudinal Education and Analysis Data System (Idaho-LEADS). The proposed project core is an integrated, statewide, dimensional P-20 and workforce data

warehouse coupled to a reporting and analysis system managed by the SEA. This warehouse will consolidate PK, K-12, postsecondary, and workforce data.

**Alignment of Proposed Outcomes with the seven Data System Capabilities, the twelve Data System Elements, and the State Fiscal Stabilization Fund**

<b>Required Data System Capabilities</b>	<b>Corresponding Outcomes</b>
1. Student progress and outcomes over time including preparation for postsecondary, workforce, and Armed Forces	2, 3, 5, 6, 8, 9
2. Exchange of data among agencies and institutions within and across states	1, 2, 3, 4, 5, 8, 9
3. Link student data with teachers	2, 3, 4, 5, 6, 8
4. Teacher certification and preparation information	2, 3, 5, 7
5. Support continuous improvement and decision making including timely information to parents, teachers, and school leaders on student achievement	2, 3, 5, 6, 7, 8, 9
6. Data quality and integrity	1, 2, 3, 4, 5, 7, 8
7. Meet Federal reporting requirements	1, 2, 3, 5

<b>Required Data System Elements</b>	<b>Corresponding Outcomes</b>
1. Unique Student ID, not personally identifiable	2, 3, 5, 7
2. Student-level enrollment, demographic, and program participation	2, 3, 5, 6, 7, 8, 9
3. Student-level information about points at which students exit, transfer, drop out, graduate P-16	2, 3, 5, 9
4. Capacity to communicate with higher education systems	2, 3, 4, 5
5. Data audit system, quality, validity, reliability	1
6. Yearly test records per ESEA	Funded by Existing Grant
7. Information on students not tested, by grade, by subject	Funded by Existing Grant
8. Teacher ID with ability to match teacher to student	Funded by Existing Grant
9. Student-level transcripts, courses completed and grades	Funded by Existing Grant
10. Student-level college readiness test scores	Funded by Existing Grant
11. Student information regarding transition from secondary to postsecondary and remedial coursework in college.	2, 3, 4, 5, 7, 8, 9
12. Other information necessary to address alignment and preparation for success in postsecondary education.	1, 2, 3, 4, 5, 6, 7, 8, 9

<b>State Fiscal Stabilization Fund (SFSF) Assurances</b>	<b>Idaho-LEADS uses to address SFSF Assurances</b>
Take actions to improve teacher effectiveness and	Proposed Learning Management System will support provisioning of results-oriented curriculum, formative

distribution	assessments, scope, sequence, and pacing guides to assist struggling teachers. Linkage of student results to teachers will support analysis of teacher effectiveness. Linkage of teachers to student assessments will assist in the analysis of teacher preparation programs. Linkage of teachers to student outcomes can be used to ensure equitable distribution of effective teachers and continuous improvement of instructional practices. Initiation of professional learning communities for teachers to share best practices.
Establish an SLDS	Idaho–LEADS will be a P-20 and workforce SLDS.
Enhance the quality of academic assessments	Idaho–LEADS will allow for multiple data points to examine correlation of current academic assessments to postsecondary attendance and postsecondary performance (including remedial course work), creating feedback loops and opportunity for continuous improvement, or adoption of other, more highly correlated assessments. Introduction of juried item bank formative assessments into classroom will allow for prediction of student success and modification of ESEA assessments to more accurately reflect student learning, or adjustment of curriculum for improved alignment with standards.
Comply with IDEA	Idaho–LEADS will allow the State to monitor progress of children with disabilities over time, create an “early warning system” utilizing formative assessments, and share formative information with parents and other stakeholders.
Take steps to improve academic standards	Proposed Learning Management System allows for the online management of academic standards and comparison of curriculum to assessment results to standards proficiency. It will also support correlation of curriculum, formative assessments, and academic standards for the continuous improvement of academic standards. Introduction of feedback loops between postsecondary and secondary institutions will support analysis of standards against success in postsecondary environment.
Support struggling schools	Idaho–LEADS will be used to identify schools in need or potentially in need for targeted assistance by trending formative as well as summative assessment data to measure and predict school performance. It also supports the sharing of best practices by identifying high-performing schools, capturing their instructional practices and communicating those practices to struggling schools. It also creates tools for parent involvement, a key component of turning around struggling schools.

## ***B. Project Outcomes Related to System Requirements and Implementation***

Our data system is designed to track student-level data within a single data structure and minimize redundant and inconsistent data. The creation of Idaho–LEADS will increase our ability to measure and monitor student achievement, increase stakeholder participation and collaboration, monitor key performance metrics, identify and disseminate best practices, and expand the K-12 system scope to P-20 and workforce to align educational outcomes to workforce needs. To complete our vision, we propose nine outcomes aligned with the required seven capabilities and twelve elements.

### **1. Establish policies and governance structure to support P-20 and workforce data system**

We will form the Idaho–LEADS Advisory Group to be responsible for developing and recommending clear reporting rules and operational policies, and creating a statewide data dictionary.

Idaho has a unique governance structure that provides significant advantages toward supporting this P-20 and workforce data system. The SBOE is responsible for the general supervision of the state postsecondary educational institutions and the public school system. The SBOE is responsible for defining the limits of instruction in the educational institutions supported in whole or in part by the state, and for the prevention of wasteful duplication of effort in the educational institutions. In addition, the SBOE will coordinate our efforts with the Governor’s Workforce Development Council. The Council was established to provide strategic direction and oversight of Idaho’s workforce development system and is supported by the Idaho Department of Labor. The Council members represent business, workers, education, state and local government and community-based organizations. The primary role of the Council is to advise Idaho’s governor and the SBOE on strategies designed to yield high-quality workforce investment services for Idaho’s businesses, job seekers, and students.

Based on Idaho’s unique governance structure and workforce partnerships, we will create the Idaho–LEADS Advisory Group. This group will consist of representatives from the SBOE, the Idaho Department of Labor, postsecondary institutions, the Division of Professional Technical Education, SDE and LEAs, as well as the education chairs of the Idaho House of Representatives and the Idaho Senate. Membership may be expanded or modified to include other stakeholders with database development, and/or research expertise. This group will be responsible for overseeing the development of the P-20 and workforce data warehouse and ensuring that it meets statewide longitudinal data needs, contains accurate, consistent data, and complies with the policies to be recommended by the group. The Idaho–LEADS Advisory Group will act as data stewards coordinating data governance with the local agency data stewards.

The two primary functions of the Idaho–LEADS Advisory Group are development and recommendation of sound data policy and technical aspects of data governance. The Idaho–LEADS Advisory Group will be responsible for the development and recommendation of privacy protection policies, data exchange agreements, confidentiality policies for access and uses, and data elements. Policies will take into account the need for interactions between participating data providers and consumers, both within and beyond the state, and will in turn govern those interactions. The Idaho–LEADS Advisory Group will also be responsible for

overseeing data element management, data security protocols, data collection, data exchange protocols, record matching, data quality assurance, and creation of a statewide data dictionary. To ensure data accuracy and timely reporting a complete set of validation rules as well as a robust data audit process will be implemented. An Idaho–LEADS Advisory Group information exchange portal will be developed to facilitate communication and product dissemination.

## **2. Integrate current statewide Education ID application into public postsecondary systems**

We will modify the postsecondary Enterprise Resource Planning (ERP) to incorporate the Education Unique ID (EDUID) by 2012.

As part of our current grant (IES grant 84.372A), we have created an EDUID application to assign unique identifiers to people within the educational system to follow students over time, to link teachers and students, and monitor the transition of student into teachers. The EDUID is associated with an individual and remains the same regardless of the role they play (student, teacher, administrator). The EDUID will be used by all Idaho educational agencies to allow for longitudinal analysis (see Appendix A, Figure 2).

The eight public postsecondary institutions will evaluate their current ERPs and make necessary modifications to incorporate the EDUID data element. The coexistence of both the EDUID and SSN in the postsecondary institutions' ERPs will allow for the linkage of information across the secondary, postsecondary and workforce systems. The public postsecondary institutions will work collaboratively with the SDE IT group and external consultants as needed to ensure seamless integration of the EDUID and to fulfill this outcome. Representatives from the postsecondary institutions will receive training on the process of obtaining and assigning the EDUID as a part of this integration.

## **3. Develop postsecondary data warehouses, a centralized P-20 and workforce data warehouse, and an associated reporting and analysis system based on that warehouse**

The core of this grant proposal is the design, development, and implementation of a P-20 and workforce dimensional data warehouse. It will be a “meta-warehouse,” combining data from the K-12 data warehouse (currently being developed under existing IES grant 84.372A) with data from the proposed data warehouses that will be built at each of the eight state-supported postsecondary institutions as described below, along with data from the Idaho Department of Labor (see Appendix A, Figure 3). This P-20 and workforce data warehouse will provide the foundation on which a robust reporting and analysis system, using appropriate business intelligence tools, will be based. The creation of this comprehensive dimensional data warehouse will provide the most powerful and flexible mechanism possible for reporting, analysis, and longitudinal tracking.

The proposed P-20 and workforce data warehouse will include detailed “transcript-level” information at the individual student level across the entire educational spectrum to include such information as individual students' course enrollments, grades, instructors, terms enrolled, majors and minors, etc. This will allow us to fulfill the requirements for postsecondary data elements specified in the RFA. We will be able to track how long students wait after high school before enrolling in postsecondary education, which students enroll in remedial coursework at the postsecondary level, and how their postsecondary performance correlates with their K-12

history. Additionally, we will be able to analyze which students are most likely to pursue postsecondary studies in STEM disciplines based on a wide variety of factors in their K-12 educational background, and use this information to devise strategies to improve STEM participation. Likewise, by including wage and industry-level data from the Department of Labor, we will be able to analyze how a students' level of educational attainment correlates with their employment. Strategies will be developed and implemented to provide de-identified but still detailed data and reports for appropriate research, evaluation, and policy-making purposes.

The first step toward the construction of this P-20 and workforce data warehouse is the development of the K-12 warehouse under the existing IES grant, which is still in the initial phase, consisting of the construction of a normalized data collection model. The design of the dimensional model has not yet begun, resulting in the ability to take into account any additional requirements arising from the need to incorporate data from that K-12 model into the P-20 and workforce data warehouse.

The next step will be the construction of individual dimensional data warehouses for each postsecondary institution. This approach will allow much of the work required to develop, maintain, and modify the detailed ETL logic to be distributed among the eight postsecondary institutions and SDE, rather than placing the entire burden on a single central team. The heterogeneity of the postsecondary institutions' ERPs, and their varying degrees of progress toward development of institutional data warehouses, necessitates that each institution be empowered with the flexibility to determine its own method of approach, subject to the requirement that each must have the capability to provide the data needed to populate the P-20 and workforce data warehouse.

A benefit of this architecture is that it will enhance local reporting and analysis capabilities at each postsecondary institution in addition to the statewide reporting and analysis that will be done from the central P-20 and workforce data warehouse. The proposed structure will enable institutions to track additional institution-specific data while also fulfilling their commitment to the statewide system. This distributed model will make it easier to accomplish sustained, post-grant funding for the initiative, since each postsecondary institution will be expected to provide the staffing needed to support its own data warehouse and will have the incentive to do so.

The Idaho-LEADS Advisory Group, as proposed in Outcome 1, will be the advisory group responsible for ensuring that the K-12 warehouse, the postsecondary warehouses, and the P-20 and workforce data warehouse are all based upon clearly and consistently defined common data elements. Additionally, the project management team will coordinate detailed planning sessions to ensure that those data elements identified by the Idaho-LEADS Advisory Group are reflected accurately and consistently within each of the respective data warehouses.

One important decision in implementing the P-20 and workforce data warehouse will be the selection of the physical architectures in which the dimensional model will be implemented. A dimensional model can be implemented as either a collection of fact and dimension tables in a relational database management system (such as Oracle or Microsoft SQL Server), or as a collection of multidimensional cubes in a system such as Oracle/Hyperion Essbase or Microsoft Analysis Services. Each approach has its own strengths and limitations, and it is very likely that

we will choose an implementation approach that includes *both* architectures, allowing us to use each one for the types of analysis and reporting it best supports. Likewise, the choice of reporting and analysis tools will depend on the architectural platforms chosen, but we expect to implement several different types of tools in order to support a wide range of needs.

The reporting and analysis tools chosen for the P-20 and workforce data warehouse will be used to develop an extensive library of standardized reports, including key performance indicators (KPIs), that will be used for statewide analysis across the entire educational and workforce spectrum. These reports will be used to analyze student preparation, remediation, retention, attainment, and employment, and to inform efforts at educational improvement and reform. Guidance concerning the exact types of reports needed and their relative priority will be provided by the Idaho–LEADS Advisory Group. The reports will be made available through a secure website to authorized stakeholders. Access to interactive features within the reporting tools will allow more in-depth exploration and analysis of the data. Researcher access will be controlled by the Idaho–LEADS Advisory Group through allowance of time-bound access to de-identified data sets in compliance with FERPA.

#### **4. Align the Division of Professional-Technical Education’s (PTE) 10 System to align with SDE’s application rewrite**

SDE is in the process of rewriting their teacher certification application incorporating EDUID for teachers. This requires moving the current application from Microsoft FoxPro to .Net creating compatibility with the ISEE SLDS architecture.

PTE accesses data from SDE for its 10 system. The 10 system was created as a desktop client-server application over a decade ago. Over the years new features and functionalities have been added into the system per new data collection requirements, including features that enable users to access the system using the Internet. The email generation feature does not work consistently and is not a reliable means of communication with the districts and schools therefore notification letters are written manually and sent to the districts/schools. Modifications have led to data integrity issues, manual intervention to exchange data between the different databases, and most importantly problems with data security and stability. The current system has several applications tied together using data exchange processes, leading to data inconsistencies and incorrect report generation from the two systems. To overcome these issues, program managers manually run the data exchange application at regular intervals to synchronize the data between the different databases. Data resides in FoxPro databases that are accessed by the FoxPro application and SQL server databases that are accessed by web application. The desktop application developed in FoxPro is reaching end-of-life support by Microsoft.

We will develop a new robust system using the latest technologies that are secure, stable, easy to maintain and scalable. In addition, this would also address the issues that the users are facing in terms of work efficiency as listed above.

We will develop a single database (FoxPro and SQL server databases would be merged) that houses the data entered by the program managers and the users accessing from the web. Personal information such as SSN numbers will be stored in an encrypted format with a robust role-based security setup for users accessing the system. Database backup procedures will be

automated at scheduled intervals with an automated scheduled process to synchronize district and school data from the ISEE system. With the new robust system, e-mail notification would be reliable, efficient and useful reports will then be generated from a single database system, and historical data would be available.

A centralized database (SQLServer) would store data entered by the program managers and the users outside the network. The access to the application would be only through a web interface (Internet and Intranet). Users would have role-based access to the different functionalities within the system and the application would be easily scalable as more users need access to the system. The synchronization process to update the district and school data would be automated and could be set on defined intervals. This will ensure that the database would have up-to-date information from the ISEE system and the manual database synchronization process would no longer be needed, and ensure the alignment with the P-20 and workforce data system.

### **5. Deploy web services to facilitate the exchange of data across agencies and states**

We will deploy web services to facilitate the secure and efficient exchange of data across agencies, and states within a services-oriented architecture (SOA) using XML and other protocols.

The Idaho–LEADS data system will contain and exchange highly sensitive information between agencies, each with independent data systems. By utilizing web services there will be minimal impact to legacy systems, which will increase the number of data sources for Idaho–LEADS, increasing the types of student information, and thereby increasing its potential impact in the evaluation of educational policy and practices.

The deployment of web services will be coordinated with the data governance work of the Idaho–LEADS Advisory Group (Outcome 1) to implement policies and procedures guiding coordinated service development efforts. The Idaho–LEADS architecture and development team will define standard business processes and create application development guidelines (such as service descriptions and APIs) to ensure the efficient integration of web services into the application development process and sharing of information across agencies and states.

Web services will facilitate the management of authentication and authorization of researcher access to Idaho–LEADS. This will allow Idaho greater flexibility with more control in the provisioning of Idaho–LEADS information to research organizations, increasing the available information to make education policy adjustments. This access will be guided by Idaho–LEADS Advisory Group policy and initiated by a research request from an organization. There will be strict data use policies and required security contracts. Researchers will only have access to de-identified information, and their access will terminate by the date specified in the security contract.

### **6. Establish a K-12 Learning Management System to support formative assessments and curriculum management**

We will implement a K-12 Learning Management System (LMS) that will facilitate the delivery of existing test data (i.e., Direct Math Assessment, Direct Writing Assessment, Idaho Standards Achievement Test) to teachers in the classroom to evaluate student-level strengths and

weaknesses to facilitate targeted instruction, assess teacher effectiveness, evaluate curriculum quality, and compare LEA achievement results. The K-12 LMS will create, track, and manage instructional plans; capture student progress on formative assessments; report summative assessment data; and provide detailed achievement metrics to teachers, students, parents and administrators.

Formative assessments will assist in the evaluation of teaching practices and teacher preparation programs for continuous improvement to increase student achievement. An LMS is a specialized data system that will enable district and school staff to identify student needs and determine appropriate interventions and/or programs; allow for rapid analysis and grouping of students by subject proficiency; store state standards and a set of curriculum based upon those standards. The K-12 LMS will also provide a mechanism that supports Professional Learning Communities where Idaho teachers can share best practices. We anticipate these best practices will be particularly useful for emerging teachers and schools struggling to meet AYP and other performance measures. The K-12 LMS will act as a digital library that maintains lesson plans and online resources for a given subject matter that can be accessed by instructors. The combination of digital instructional materials and Professional Learning Communities supports the sharing and continual improvement of instructional materials and practices.

The K-12 LMS will streamline the creation of assessments (formative, benchmarks and end-of-course), providing a process that includes: test and subject matter creation; test printing, and electronic grading supporting analysis of content proficiency and trends analysis to guide instructional practices.

Some of the key features anticipated in the K-12 LMS are:

- Graphical class roster display which includes student proficiency
- Differentiated instruction groups
- Individual student test history and profiles
- Teacher generated materials banks

The K-12 LMS will be integrated with ISEE, the K-12 data warehouse. ISEE will contain all student assessment data including those produced through the K-12 LMS and those delivered and scored by outside assessment vendors. The integration of these two systems will promote delivery of all assessment information to the classroom for teacher use. This system will also support efficient transfer of information regarding migrating students, providing longitudinal data to the new school during enrollment changes.

#### **7. Create a statewide K-12 data utilization training program (teaching teachers and administrators how to use data to set measurable goals and then track progress)**

We will create a statewide K-12 data utilization training program employing regional data coaches to train LEA personnel on data utilization for instructional and administrative practices.

The SDE will create a comprehensive training program for K-12 educators in the effective use of data to modify instructional practices. Educators need to be better prepared to use classroom formative assessments, summative assessments, proficiency trends, and student grouping. These tools can be used to correlate student progress to curriculum and instruction for the purpose of

individualizing instruction and the modification of curriculum based upon student achievement results. Under this grant proposal we will develop pre-service curriculum as well as in-service curriculum in the use of student assessment data to guide instructional practices.

Idaho plans to collaborate with Oregon, incorporating the training materials and expertise developed by them under their 2009 IES grant, CFDA 84.372A. Oregon has developed an extensive battery of on-line and workshop-centered training materials covering topics such as: creating a data culture, using data to improve learning in schools and districts, and using data to improve learning in the classroom. Idaho plans to modify these training materials to align with ISEE and deploy these materials to Idaho educators via workshops and on-line training, in both pre-service and in-service teacher programs.

An initial phase of the training program will be the creation of a communications plan to introduce the Learning Management System (LMS) and its utility to Idaho stakeholders. This phase will be quickly followed by the key training program components, on-line instruction and workshops, aligned to teacher and administrator stakeholder needs and instituted utilizing regional data coaches. Training will provide stakeholders with the knowledge and skills for using data to measure and analyze student progress and make data-driven instructional decisions which reflect the educational needs of individuals. It will provide administrators the ability to use data-driven information to identify successful programs, evaluate policy alternatives, and determine priorities for allocation of resources.

We will identify the most efficient ways to train each group of stakeholders and develop methods that maximize data use within that stakeholder's role. We will participate in local, regional and state stakeholder meetings (e.g., the Idaho Association of Principals, Title I conferences). We will invite neighboring states to participate in these meetings to share their successes using longitudinal and formative assessment data as a methodology to increase student achievement. This interaction will initiate peer-to-peer networks and establish a forum for sharing best practices across classrooms, schools, LEAs, and states.

The training curriculum will be designed for use during educator meetings (e.g. staff meetings), as well as for self-paced, web-based training. A series of workshops will be established to develop skills in data use for instructional modification and curriculum adjustments. The curriculum will include a number of instructional strands, culminating in the certification of local educators in data utilization.

The training program will be closely tied to the introduction of formative assessments delivered through the LMS. Educators need the ability to deliver and utilize formative assessments to adjust instruction and curriculum during the course work and prior to state tests. These formative assessments can be used to measure instructional outcomes and allocate resources (e.g. interventions) thereby increasing student learning. They can also be incorporated in the evaluation of teacher preparation programs.

Data-driven decision making and the use of data will become a part of the teacher evaluation process, integrated into the pre-service teacher certification process, included in student teacher internships, and introduced as part of the state's teacher certification process.

Organizationally, the training program will consist of six positions: one centralized Director of Data-Driven Instruction and five Regional Data Coaches. This training team will create a data use certification program and provide training workshops and on-line resources to certify educators as data coaches. These certified data coaches will train school data teams and coordinate training and professional development activities to other stakeholder groups. We will use a train-the-trainer model managed by the Director of Data-Driven Instruction who will coordinate delivery of training through the efforts of the regional data coaches (see Appendix A, Figure 4).

The training program will be evaluated by collecting quantitative and qualitative participant information using feedback sources such as Web Trends, paper-based surveys, on-line surveys, and/or interviews. This information will be used to modify the training program and ensure its alignment with stakeholder needs and continual improvement.

#### **8. Create web widgets and tools to provide targeted, appropriate information to stakeholders**

We will establish processes and instruments to deliver targeted, appropriate information to stakeholders by identifying key influencers of the educational process and creating web tools matched to their common web behaviors (see Appendix A, Figure 5).

Data availability does not equal accessibility. We plan to increase stakeholder participation and involvement in the educational system through the creation of specific sets of data for each of our stakeholder groups and then development of web widgets and tools to deliver more personalized information to each stakeholder group. This process will start by defining our stakeholders and determining where they acquire their information, what information they find useful and/or what information will they act upon, where they want it delivered and the most useful format. As an example, those who use iGoogle as their home page may want a gadget to customize their iGoogle page. Some may want to subscribe to updates (similar to the way they currently subscribe to local stock prices or sports scores) text messaged to their cell phone. Teachers may want a WebPart to be one of their favorite online teaching tools to integrate into the district portal. Parents may want to know school performance by school boundaries so they can select a home in an area with high performing school and have the information reside on their Yahoo account.

We will survey stakeholder groups for their informational needs and commonly used methods to access and acquire information. We will identify appropriate technology to deliver relevant educational information to each stakeholder group for incorporation into their preferred information source (e.g., iGoogle, Facebook, cell phone alerts, etc.); then establish message managers, who select pertinent information for the group they manage, and determine delivery schedules and content.

Once the stakeholder audience is defined and a general understanding of the content desired by the stakeholders has been established, the implementation of this new mechanism for providing targeted, appropriate information to stakeholders includes three steps: 1) defining content channels (e.g., Local School District, 4<sup>th</sup> Grade, local Elementary) to which stakeholders can

subscribe; 2) defining end points (e.g., iGoogle Gadget, MyYahoo, iPhone App, RSS Feed, Facebook Plugin, eMail etc.) to which content will be distributed; and 3) allowing stakeholders to select the combination of content channels and end points that suit their preferences.

## **9. Develop a pilot multi-state data exchange**

We will participate in a pilot effort to establish a multi-state data exchange that encompasses K-12 and postsecondary education and workforce data.

To lay the foundation for this project, data system leaders from four states (Idaho, Oregon, Washington, and Hawaii) attended a planning meeting in June 2009 convened by the Western Interstate Commission for Higher Education (WICHE). Discussions focused on how such a multi-state data exchange might be designed, organized, governed, and implemented. The data exchange will focus on providing the resources to comprehensively answer two principal policy questions with evidence drawn from all participating states' data: 1) How are former high school students from participating states performing in postsecondary education and/or the workforce in participating states?; and 2) How are former postsecondary students from participating states performing in the workforce in participating states? The answers could be disaggregated in many ways to examine trends in performance associated with key characteristics such as timeframe; school/institution of attendance; disciplinary field or type of high school curriculum; industry of employment; key demographics such as race/ethnicity, gender, etc.; region within state; level of college readiness; and different conditions of departure from education (e.g., graduated/not graduated, number of postsecondary credits earned at departure, etc.).

The goals for this pilot effort are to create a structure through which states can exchange individual-level data for enhanced analysis while preserving privacy; to identify and standardize a set of core data elements required for effective record matching across states and policy research and analysis; to establish a lasting structure for the governance of such an exchange, which is completely reliant on the voluntary participation of states; and to create a set of regular reports using data from the exchange, and to develop the processes and procedures for FERPA compliant access to data for additional analyses.

To accomplish these goals, our project will engage WICHE, a trusted third party, to lead the development of the data exchange. WICHE will provide services including organization and facilitation of planning activities to include the development of necessary memoranda of understanding; identification and standardization of the initial set of core data elements to enable matching of records across sectors and states; selection and management of a qualified vendor to perform the technical aspects of record linking; facilitation of regular meetings of the data exchange's governing body; design and initial preparation of reports as regular products of the data exchange; and facilitation of meetings to standardize and incorporate additional data elements of particular interest to the participating states.

Particular attention must be paid to the governance of the exchange, given the voluntary nature of the exchange and the potential for built-in challenges to participation, such as comparisons among state performance that will inevitably be made. Initially, the exchange will turn to each state's governor to appoint members representing each sector (K-12, postsecondary, workforce) to a governance body. The governance structure will rely on an executive committee drawn

from each state's delegation and a technical advisory committee, whose members will be selected among nominations made by the governance body. Issues for the governance structure to address include selection of the vendor for technically linking records; assuring compliance with relevant privacy protections; identifying the specific data elements to comprise the data exchange; creating regular reports using data in the exchange; and developing a process for outside researchers gaining access to the data.

**C. Timeline for Project Outcomes**

These tables show the proposed outcome, their major activities and the expected quarters within which those activities will occur. These activities lead to the outcomes in the grant narrative.

**1. Establish policies and governance structure to support P-20 and workforce data system**

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Select representatives for Idaho-LEADS Advisory Group	X											
Convene initial Idaho-LEADS Advisory Group meeting		X										
Document member roles, responsibilities, establish meeting schedules and communication methodologies		X	X									
Examine other states' interoperability models			X	X								
Develop data elements to be included in P-20 and workforce data warehouse, data dictionary, policy manuals, protocol standards (in collaboration with development team)			X	X	X	X						
Define and implement data quality audit process			X	X	X	X			X	X		X
Provide quarterly Idaho-LEADS Advisory Group SLDS progress reports					X	X	X	X	X	X	X	X

**2. Integrate current statewide Education ID application into the public postsecondary systems**

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Collaboration between postsecondary institutions and SDE for integration of EDUID into postsecondary ERPs	X	X										
Evaluate and modify current ERPs to incorporate EDUID		X	X	X								

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SDE and postsecondary institutions prepare process documentation and training materials for users			X	X								
SDE schedule and deliver training sessions				X	X							
Evaluate efficacy of processes and procedures as needed							X	X	X	X	X	X

**3. Develop postsecondary data warehouses, a centralized P-20 and workforce data warehouse and an associated reporting and analysis system based on the P-20 and workforce data warehouse**

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Issue RFP's, review proposals, award contracts for individual postsecondary data warehouses and reporting/analysis systems	X	X										
Issue RFP, review proposals, award contract for development of P-20 and workforce data warehouse and reporting/analysis system	X	X										
Design and implementation of individual postsecondary data warehouses			X	X	X	X	X	X	X	X		
Logical design of P-20 and workforce data warehouse (i.e., defining facts and dimensions)			X	X								
Review/adjustment/enhancement of individual secondary and postsecondary warehouse designs to ensure support for P-20 and workforce data warehouse logical design				X								
Construction and testing of P-20 and workforce data warehouse relational layer and ETL processes						X	X	X	X			

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Construction and testing of P-20 and workforce data warehouse multidimensional layer (intertwined with relational layer development)							X	X	X			
Development of end user data dictionary and training/help documentation for P-20 and workforce data warehouse									X			
Construction of reports (using both relational and multidimensional layers) in P-20 and workforce data warehouse									X	X	X	
Design and implementation of security									X	X	X	
Training and go-live									X	X	X	X

**4. Align the Division of Professional-Technical Education's (PTE) 10 System to align with SDE's application rewrite**

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Analyze and define business requirements for PTE			X									
Design system based on requirements and architecture of SDE's current system				X	X							
Build the various system applications and reporting tools					X	X	X					
Define test scripts, perform quality assurance, and testing on applications and reports								X				
Obtain end-user acceptance								X				
Load applications to PTE's servers									X			
Migrate data from existing databases									X			
Write application documentation										X		
Train end-users										X	X	X

**5. Deploy web services to facilitate the exchange of data across agencies and states**

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Business analysis	X											
Create Business Requirements Documents		X										
Develop architecture models			X									
Define use cases and test scenario framework and standards					X							
Purchase server and software applications to support architecture				X								
Define data elements and models					X							
Build application and user interfaces standards						X						
Create system testing standards								X				
Establish development requirements									X			
Final user acceptance testing standards											X	

**6. Establish a K-12 Learning Management System to support formative assessments and curriculum management**

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Requirements gathering and documentation (procurement)	X											
Procurement process (procurement)	X	X										
Determine configuration		X	X									
Define data elements and format		X										
Verify data is normalized			X									
Software installation				X								
Load standards				X								
Curriculum discovery and loading				X								
Configure site preferences and permissions					X							
Load test data					X							
Load students and bell schedules						X						
Perform quality analysis							X					

