

R372A120037

OMB Number: 4040-0004  
Expiration Date: 03/31/2012

Application for Federal Assistance SF-424	
<b>* 1. Type of Submission:</b> <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	
<b>* 2. Type of Application:</b> <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	
<b>* If Revision, select appropriate letter(s):</b> _____ <b>* Other (Specify):</b> _____	
<b>* 3. Date Received:</b> Completed by Grants.gov upon submission.	<b>4. Applicant Identifier:</b> Office of the State Board ED.
<b>5a. Federal Entity Identifier:</b> _____	<b>5b. Federal Award Identifier:</b> _____
<b>State Use Only:</b>	
<b>6. Date Received by State:</b> 11/16/2011	<b>7. State Application Identifier:</b> OSBE001
<b>8. APPLICANT INFORMATION:</b>	
<b>* a. Legal Name:</b> State Board of Education	
<b>* b. Employer/Taxpayer Identification Number (EIN/TIN):</b> 826000952-57	<b>* c. Organizational DUNS:</b> 8252011890000
<b>d. Address:</b>	
<b>* Street1:</b> 650 W. State Street	_____
<b>Street2:</b>	_____
<b>* City:</b> Boise	_____
<b>County/Parish:</b>	_____
<b>* State:</b>	ID: Idaho
<b>Province:</b>	_____
<b>* Country:</b>	USA: UNITED STATES
<b>* Zip / Postal Code:</b> 83720-0037	_____
<b>e. Organizational Unit:</b>	
<b>Department Name:</b> Office of the State Board Ed.	<b>Division Name:</b> _____
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>	
<b>Prefix:</b> Mr.	<b>* First Name:</b> John
<b>Middle Name:</b> Andrew	_____
<b>* Last Name:</b> Mehl	_____
<b>Suffix:</b>	_____
<b>Title:</b> SLDS Project Coordinator	
<b>Organizational Affiliation:</b> _____	
<b>* Telephone Number:</b> 208-332-1586	<b>Fax Number:</b> _____
<b>* Email:</b> andy.mehl@osbe.idaho.gov	

**Application for Federal Assistance SF-424**

**\* 9. Type of Applicant 1: Select Applicant Type:**

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

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

U.S. Department of Education

**11. Catalog of Federal Domestic Assistance Number:**

84.372

CFDA Title:

Statewide Data Systems

**\* 12. Funding Opportunity Number:**

ED-GRANTS-092011-001

\* Title:

Institute of Education Sciences (IES): Statewide, Longitudinal Data Systems Program CFDA Number 84.372A

**13. Competition Identification Number:**

84-372A2012

Title:

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

Add Attachment

Delete Attachment

View Attachment

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

Priority 3. Postsecondary and/or Workforce Data - Incorporate Workforce data to advance Idaho's P-20 SLDS to P-20W SLDS and enhance capabilities.

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424**

**16. Congressional Districts Of:**

\* a. Applicant

b. Program/Project

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

**17. Proposed Project:**

\* a. Start Date:

\* b. End Date:

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

* a. Federal	<input type="text" value="3,136,947.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="3,136,947.00"/>

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

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

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

- Yes
- No

If "Yes", provide explanation and attach

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

\*\* I AGREE

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

**Authorized Representative:**

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

\* Title:

\* Telephone Number:  Fax Number:

\* Email:

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

1-12-2012

#### **4. Project Abstract:**

**Title:** Incorporating Workforce Outcomes into Idaho's P-20 SLDS

**Priority Addressed:** Priority 3. Postsecondary and/or Workforce Data

**Responsible Agencies:** Idaho State Board of Education (SBOE)

#### **Project Description:**

*Current Status:* Idaho started collecting data from all school districts and charter schools into the State Department of Education (SDE) K-12 SLDS (ISEE) in the fall of 2010. In late 2010 through early 2011, the unique student ID (EDUID) system was utilized to populate the postsecondary ERP systems creating the link for all students throughout their education. In the fall of 2011, the Office of the State Board of Education (OSBE) started collecting data into a new singular postsecondary SLDS (ILEADS). When this initial data collection is completed, Idaho will have the basic elements of the P-20 SLDS in place.

*Proposed Project:* The purpose of this grant is to develop a longitudinal workforce database and to link it to the present P-20 system. This project has three outcomes: develop the workforce database, enhance the EDUID system linking students to the labor database, and develop a research request portal.

*Goals:* Objective #1 – Workforce Longitudinal Database and P-20W SLDS

- Create Workforce Longitudinal Database - Idaho Department of Labor
- Expand ILEADS SLDS to include aggregate workforce data elements
- Create the Idaho Institutional Review Board
- Sign MOU's and Create Labor Unique ID System
- Pursuit of a data exchange with the Department of Transportation to populate Social Security Numbers.
- Extensive Workforce summary reporting
- Improved visibility into Workforce outcomes

Objective #2 – Enhance the EDUID System

- Investigation of EDUID improved matching opportunities
- EDUID system changes
- Improved match rate

Objective #3 – Research Data Request Website

- Stakeholders input
- Design of request process flow
- Website developed and workflow implemented
- Streamlined Research request process

*Expected Results:* Idaho will have a robust P-20 to workforce (P-20W) SLDS. From this system, reports can be pulled and the workforce needs and education success can be evaluated. The unique identifier will be equipped to increase the match rate of individuals based on multiple identifiers resulting in a higher match rate across all systems and higher reporting accuracy. In addition, a research data request website will allow researchers to make data requests, Idaho will have the ability to track and fulfill requests by stakeholders and constituents in a timely manner. The website will have an integrated workflow in place. These systems are essential for policy makers and the Board to make data-driven decisions.

a) **Need for Project**

*Overview*

The Idaho State Board of Education, (SBOE), is the policy-making body for public education in Idaho and provides general oversight and governance for public K-20 education. It is also the State Educational Authority (SEA) for Idaho. The SBOE's Strategic Plan requires the development of a P-20 to Workforce SLDS (P-20W SLDS) that provides the ability to access timely and relevant data by 2015 with the primary objective of data-driven decision making.<sup>1</sup> The Idaho Constitution provides that general supervision of the state educational institutions and the public school system rests with the SBOE. The components of Idaho's educational system collaborate to deliver statewide high quality, readily accessible, relevant public primary, secondary and postsecondary education, training, rehabilitation, outreach, information and research services in the most efficient manner. In addition, the postsecondary SLDS is being developed in alignment with IPEDS definitions. SBOE is responsible for defining instruction in the educational institutions supported by the state and for preventing wasteful duplication of educational effort.

*Current SLDS Status*

The Idaho State Department of Education (SDE) developed Idaho's K-12 SLDS with \$5.9M from a 2009 SLDS grant and an additional \$2.5M of state money. The development included a unique student ID system (EDUID). This system has the capability to assign ID's to all students, teachers and staff that interface with students in K-12 education. The K-12 SLDS started data collection in the fall of 2010. In April 2011, SDE received a private grant of \$21M to implement SchoolNet as the learning management system to provide teachers with timely and critical data to optimize and customize education delivery to students. In early 2011, the SBOE approved Phase I and Phase II of a four phase plan as part of the postsecondary SLDS; this project is being executed by the Office of the State Board of Education ("OSBE").

In the fall of 2010, the Institutions of Higher Education (IHE) processed their current enrollment files through the EDUID engine to obtain unique ID's for students already in the K-12 SLDS and to generate new ID's for the remainder of their enrollment not already accounted for. As part of Phase I, the EDUID's were then transferred into the institutions' Enterprise Resource Planning (ERP) systems and subsequently extracted, along with a requested data set to populate the postsecondary SLDS. Idaho is now in the process of testing and validating this data and plans to have the postsecondary elements necessary to fulfill the technical requirements under the American Recovery and Reinvestment Act (ARRA) and the America Competes Act in place prior to January 31, 2012. The Idaho IHEs are funding the development costs of the postsecondary SLDS. The Institution of Education Sciences (IES) grant would not replace the funding source being used to create and maintain the Idaho Pre-K to 20 Workforce System SLDS (P-20 SLDS). This grant would allow the additional objectives detailed in this proposal to be completed over the next three years.

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<sup>1</sup> See Goal 3 Objective B in the State Board Strategic Plan in the Attachments.

Not only have great accomplishments been made in creating a P-20 system, state leadership is passionate about building on these accomplishments. The vision expressed by Superintendent of Public Instruction, Tom Luna, is that **“Every parent and educator will have access to the data they need to guide instruction on a daily basis and measure the academic progress of all students.”**

A full expression of the Superintendent’s vision is:

When students and the adults who support them reach a decision point, all the information they need to make the right choice will be at their fingertips. When education agencies and schools need to know how to accomplish this data-driven decision making, they will be supported by the SDE to make it happen.

All of our information systems will be integrated to share data embracing open standards. Confidentiality, security, integrity, validity, quality, and timeliness will characterize this sharing process. Technology and the creative architecture that takes advantage of it will leverage open standards that allow a single “information network” to evolve.

Submitting reports will be replaced by using reports. Assessment, accountability, and accounting will be unobtrusive processes performed by the information network using the transactional applications that make individuals productive.

Educators will educate, not stop educating to collect, report, and analyze data.

To reach that point, considerable enhancements to Idaho’s P-20 system must be implemented. The State Legislature and private entities are committing positions and millions in state and private dollars to SBOE to assist in these efforts.

### ***Longitudinal Data System Needs***

The current K-12 and postsecondary longitudinal data efforts are significant and their completion will create the base for Idaho P-20 SLDS. This will help SBOE measure the progress of “A Well Educated Citizenry,” the first goal of SBOE’s Strategic plan. A key part of this goal, however, is to “allow students to efficiently and effectively transition into the workforce.”<sup>2</sup> In order to analyze whether or not we are meeting this goal, we know that a link between workforce data and education data is critical. Objective #1 is required to be in place. The mutual goal of the Idaho Department of Labor (IDOL) and SBOE in creating the workforce longitudinal database is to organize labor data longitudinally as well as to link with the P-20 SLDS for the evaluation and continuous improvement of the educational and employment systems. This will allow Idaho to create a record of education and employment attainment over time. As part of these efforts, IDOL proposes the creation of a Longitudinal Workforce Database, and the **Idaho Institutional Research Board** whose members will be representatives of education and labor. Idaho is also participating in the CEDS review and will make every effort to utilize this valuable opportunity as we view this initiative as the solution to effective data exchanges.

In order to ensure data is being accurately linked across K-12 and postsecondary systems, the EDUID system needs to be enhanced. Objective #2 addresses this requirement. Currently, the EDUID system matches primarily on a limited set of Personally Identifiable Information

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<sup>2</sup> See Goal 1 Objective D in the State Board strategic plan in the attachments.

(PII). The EDUID system needs enhancements in order to use the data to match individuals in the K-12, postsecondary, and workforce data. These enhancements are critical as “failed match” rates can alter the enrollment results in postsecondary, the completion rate on transfer students, and the successful transfer rate into the workforce.

Once the workforce database is built and the EDUID system is enhanced to link the systems, a website will need to be created for researchers to make data requests. Objective #3 addresses this requirement. The value and usefulness of the data is garnered in the use of longitudinal data to understand progress and outcomes, affect change, measure the results of programmatic changes and ensure the success of the students over time. Currently, money is budgeted to only build a reporting portal where aggregate postsecondary reports will be published. The development and implementation of a Research Data Request process flow website would streamline management capabilities and provide a history of internal and external requests as well as ensure timely delivery of data. This solution would handle all internal and external data needs that cannot be resolved with the aggregate data. Continuous improvement to this system will require access to performance data.

### ***Objectives***

The objectives under this grant would enhance the capabilities of the P-20 SLDS by linking workforce data to K-12 and postsecondary (creating the P-20W SLDS), improve the quality of the data being submitted, and allow Idaho to deliver critical and timely data to decision makers in key areas.

We are proposing to use this grant to fund the following SLDS projects:

- Development of a workforce longitudinal database and incorporation of workforce data to create the P-20W SLDS, including the necessary governance
- Enhancements to the EDUID system
- Development of a Research Data Request process flow website

## **b) Project Deliverables Related to System Requirements and Implementation**

### ***Labor longitudinal database and P-20W SLDS (Objective 1)***

To meet the proposal’s goals, SBOE has agreed to exchange confidential information with IDOL. The SBOE will collect the data, including Social Security numbers, from Idaho's postsecondary institutions utilizing its secure website. If this grant application is funded, the data will be uploaded to IDOL's longitudinal database along with a labor unique ID (LABUID) for matching and reporting purposes. This should eliminate the need to store the SSN in the P-20W SLDS. Any time student unit record labor data is needed, the LABUID could be sent to make the match. In the short term, this agreement will streamline the way the IDOL currently gathers this information. Use of the Idaho Longitudinal Workforce Database proposed in this grant will be overseen by an **Idaho Institutional Review Board**, established

and registered by IDOL. Representatives will be comprised from IDOL, SBOE and SDE, and Idaho's three public universities. The Idaho Institutional Review Board will act as the independent ethics committee protecting human subjects when external research entities are granted access to the data, which will be an added protection above existing laws and rules to ensure protection and security of confidential information.

The 34-member Idaho Workforce Development Council also provides oversight and guidance for the state's workforce and employment service programs. Appointed by the governor for three-year terms, the council is responsible for advising the governor and SBOE on issues related to workforce development, statewide employment statistics and labor market information and any incentive grants as outlined under section 503 of the Workforce Investment Act. The governor names the chair and vice-chair of the council, which is jointly staffed by a team of administrators and program managers from several state agencies involved in workforce development. The Idaho Institutional Research Board will leverage the Workforce Development Council to ensure effective management of the labor longitudinal database.

Cooperative agreements and partnerships currently exist between DOL and several Idaho educational institutions and agencies such as the **Idaho Division of Professional Technical Education, Adult Basic Education, Division of Vocational Rehabilitation** and **Boise State University**. These agreements and partnerships range from verifying wage information necessary for program participation to determining employment status, up to and including measuring program effectiveness.

#### *Labor Plan Outline (Objective 1)*

There are many benefits in housing the unit record longitudinal labor data within the Department of Labor:

- The identifiable data is held by the owner
- The knowledge for dealing with different rules and regulations regarding labor data are known and the responsibility of IDOL
- The staff, policies, procedures, and security for protecting confidential labor data are already in place
- The necessary MOU's become far less complex and achievable

#### *Longitudinal Workforce Database (Objective 1)*

SBOE and IDOL's objective is to develop a Longitudinal Workforce Database for its employment and training programs that will merge data elements – or entire systems – into a centralized warehouse for ease of populating data, automated reporting and analysis at the program and individual level.



*P-20W SLDS Enhancements (Objective 1)*

The IDOL will house the longitudinal labor database containing the individual Unemployment Insurance quarterly detail. The SBOE will manage the project to incorporate the labor data elements necessary to store aggregated labor data in the P-20W SLDS for the reporting portal. The reporting portal does not require student unit record level labor data, therefore storing aggregate workforce data eliminates the potential for exposing individual labor data in the P-20W SLDS. Research requests that cannot be satisfied by the reporting portal will utilize IDOL's longitudinal labor database or a combination of Educational and Labor detail covered by a MOU.

Interchanging information from the workforce database to the educational database represents a prime opportunity for both agencies to analyze:

- Employment and employment changes,
- Wages and wage changes,
- Employer and employer changes,
- Employee demographics (age, gender, marital status) and changes,
- Employee's industry/sector.

Reports using IDOL's data will be able to determine:

- The employment rates of students from the various Idaho institutions and degree programs within those institutions and high schools, and how they change over time.
- The earnings of students from the various Idaho institutions and programs within those institutions and high schools, and how they change over time.
- The educational attributes (school/institution attended, coursework taken, performance, demographics) of students who become employed (or not) and have high or low earnings relative to others in their field, and how they change over time.
- The percentage of Idaho's high school and higher education students who continue to work in the state, and how it changes over time.
- The percentage of Idaho's workforce who return to postsecondary education for additional training, whether they earn a credential and how that changes over time.
- The percentage of Idaho's high school and college students who are employed while in school, whether there is a correlation between their employment and their academic success and how that changes over time.
- The relationship between specific industries and the employment rates of Idaho high school and college graduates, and how that changes over time.
- The employment rates and incomes of students who do not attend college compared to those who do, by industries/sectors, and how that changes over time.
- The migrating patterns resulting from layoffs or any other combination of circumstances from and between available tables will be invaluable for further research and analysis including their change over time.

*State Objectives (Objective 1)*

IDOL and SBOE will fully define the research reports and deliverables necessary for making informed decisions on the future of Idaho's education and training programs. IDOL will conduct an analysis of the agency's current capacity to produce the reports; recommend a methodology and variables for conducting the required analysis and design its Longitudinal Workforce Database and the analytical and Web tools necessary for producing the reports. If awarded, the IDOL will:

1. Define workforce reporting needs in relation to the deliverables of a longitudinal database and work with SBOE measuring participants' educational and employment outcomes of the state's education and training programs.
  - a. As a result of this effort, IDOL will produce quarterly and annual reports containing as much of this information as feasible to meet the needs of those who may benefit from Idaho's employment and training programs and their subsequent enrollment in the state's educational system. Recipients of this information, such as SBOE and the Idaho Workforce Development Council, can use it in directing and improving the programs they administer. These reports will be available in hard-copy, electronic file via e-mail, or online via links through IDOL's website and linked to the planned SLDS Reporting Portal.
2. IDOL's Workforce Division will develop and deploy statewide training for staff on the new longitudinal database and related tools so staff can provide better service to participants enrolled in employment and training programs. Training will assist the staff and their customers to develop better individual training plans based upon reported outcomes. Deployment of this training will take approximately one month after the longitudinal database and its reporting tools have been tested and released.
3. Assess the state's capacity to develop an internal longitudinal workforce database to measure the outcomes of IDOL's employment and training programs and make recommendations for improvement based on participants' educational outcomes.
4. Design and build the structure of a longitudinal database that houses participant information.
5. Develop a methodology and computer-based reporting tool for IDOL to collect, process, and analyze data to meet reporting needs and deliverables.
6. Design and develop web tools to provide information to stakeholders.
7. Deploy web services to facilitate the exchange of data across agencies and states.

8. Collaborate with SBOE in developing the structure and architecture to expand the P-20 SLDS to a P-20W SLDS to include the information and data necessary for producing reports and analysis;
9. Pursue a data sharing agreement with the Idaho Department of Transportation (Transportation) that would allow IDOL to augment its wage records with driver's license data;
10. Use the Idaho Institutional Research Board to review all requests for proposed research projects and follow IDOL policy and procedures for securing approval from its Policy Committee on project development and accessing IDOL's existing and future databases;

While IDOL will be responsible for carrying out the design, development and deployment of its workforce longitudinal database, it will work with and solicit input from SBOE. While SBOE will house the P-20W SLDS outside IDOL's network, the two independent databases will be capable of programmatically exchanging data as necessary.

Educational input will be solicited from Idaho's Data Management Council which is responsible for managing Idaho's P-20 SLDS. The Data Management Council's current responsibilities include overseeing the P-20 SLDS development and recommending privacy protection policies, data exchange agreements, confidentiality policies for access and uses, data elements and variables, data element management, data security protocols, data collection, data exchange protocols, record matching, data quality assurance, a statewide data dictionary, a complete set of validation rules and a robust data audit process.

With the expansion of the SLDS to include labor data, the Data Management Council will be assigned the responsibility of overseeing the additional database development and data quality measures, developing and recommending clear reporting rules and operational policies, overseeing updates of the statewide data dictionary and overseeing the development of a longitudinal state workforce data warehouse that meets statewide longitudinal data needs, contains accurate and consistent data and complies with confidentiality policies.

*Deliverables (Objective 1)*

- Project Planning Meetings
  - Meet with the IDOL, the IHE's and SDE
    - Determine Team members & establish meetings
    - Refine project plan
      - Data Management Council establishes IDOL implementation subcommittee
- Design & Architecture

- Database Design – objective – detailed labor data resides in the IDOL longitudinal database, aggregate data resides in P-20W database
  - Data Management Council determines configuration of IDOL and consolidated SLDS databases
    - Data Elements
    - Security
    - Aggregation Level
- Meet with the Data Management Council
  - Determine other sources to link to wage data
- Determine required MOU's
- Explore other matching methods
- Investigate matching with the Department of Transportation Define standard reports / data for reporting portal
- Development & Coding
  - Develop MOU's
    - Utilize IDOL's templates
    - Schedule working sessions with each agency's Deputy Attorney General
  - IDOL Unique ID's (LUID's)
    - Replacement table so EDUID's aren't passed between systems, but can be tracked back to source.
  - Servers
    - Procure hardware and software
    - Installation
    - Configuration
  - Database Development
    - P-20 SLDS to P-20W SLDS
    - Idaho Longitudinal Workforce Database
  - SFTP process creation
  - Develop IDOL Data Request process
  - Develop standard data access / reports
- QA & Testing
  - Execute sample data sets
  - Evaluate matching
  - Validation of data aggregate vs. detail
- Implementation
  - Training
    - Create documentation
    - Conduct seminars
  - Reporting – labor outcomes

- Incorporate outcomes into the Idaho Fact Book
- Provide reporting to SBOE, SDE, local school districts, and IHEs
- Address key policy questions regarding outcomes
- Create standard labor reports and reporting portal data

*Example Dataflow (Objective 1)*

(Listed below is sample data illustrating how data would be transferred and which systems would hold specific information.)

**K-12 SLDS sending data**

Student Name,           DOB,           Gender, EDUID  
Henry James Huggins 01/11/1990,   M,       123431231

Add "LABUID", strip out EDUID and submit record to Transportation

Student Name,DOB,                           Gender,       LABUID  
Henry James Huggins 01/11/1990,   M,       954894123

(P-20W SLDS maintains cross-reference file to EDUID)

**Transportation matching** determines SSN, strip off demographics

LABUID,       SSN  
954894123,   123-45-6788

(System would return a 'no match' file of LABUID's to requestor)

Transmit data to IDOL

LABUID,       SSN  
954894123,   123-45-6788

**IDOL creates quarterly longitudinal records referencing LABUID and SSN**

LABUID,	SSN,	Quarter,	Quarterly Wage,	Industry
954894123,	123-45-6788,	1Q2010,	\$8,492.12	xyz
954894123,	123-45-6788,	2Q2010	\$8,332.12	xyz

Etc. (exact fields to be determined)

Now any requests for wage data from education will use the LABUID

K-12 request:

LABUID's and any timeframe information

954894123

383488383

Etc.

- This prevents "looking up" someone in the workforce data by EDUID
- Does not combine name with SSN in the database
- Supports linking / retrieval when required

- Does not require the SLDS's to maintain SSN's
  - Postsecondary will submit SSN's to IDOL but will not be stored in SLDS
- Allows IDOL to manage security and access through existing governance

### *Enhancements to the EDUID System (Objective 2)*

The existing EDUID System was custom built by Idaho and utilizes First Name, Middle Name, Last Name, Gender, and Date of Birth to determine a match. The EDUID system also provides the ability to match using hashed SSN, but because K-12 and postsecondary do not require SSN on all students, this feature is not utilized.

While this system is robust and handles names that sound the same (soundex), hyphens, and other nuances, it creates new ID's more frequently than desired. A large matching issue is name changes of students after leaving high school and before entering college, this can be mitigated by adding another name field (former name) to use in the comparison. Currently, the user is provided an opportunity to decide how to handle potential duplicates before ID's are assigned, but there is no preview showing how the other records will be handled. Having the opportunity to preview the results before they are committed would greatly reduce the creation of new records due to input errors (where the user knows the record should match), and possibly identify mismatches before they are committed. It is a time consuming manual process to "join" records that are duplicates, and exponentially more difficult and time consuming to "split" records when it is determined that there really are two different students with the same names. In this case, each detail record stored in the SLDS has to be reviewed and a determination made to which student they belong.

Further analysis is needed to determine what other changes are warranted due to the expansion of postsecondary and workforce data. Additional audit reports will also be developed to identify issues and aid in the correction of errors.

#### *Deliverables (Objective 2)*

- Requirements Gathering:
  - Determine reasons duplicates are being created
  - Determine changes that will address root causes
  - Review additional algorithms such as those used by the Oyster Identity management system
  - Explore other methods for correctly matching students (such as "high school graduated from")
- Design & Architecture
  - Create EDUID modification project plan
  - Data Management Council design review and approval
- Development & Coding
  - EDUID modifications
  - Audit report creation
  - District and Institution changes to upload files
  - Gather additional data elements
    - Update documentation

- System documentation for support and future enhancements
- User's manual update
- QA & Test
  - Data Management Council review
  - Update and correct existing data
  - Test
    - Run audit reports
    - Determine if additional changes are warranted
- Implementation
  - Review and approval by Data Management Council
  - Move to Production
  - Training
  - Turnover – move to support team
  - Final Report Effects on match rate



***Research Data Request Website (Objective 3)***

While basic data needs may be satisfied by Idaho's planned and internally funded Data Reporting Portal site, there is a need to provide data including student level de-identified data for research purposes. It is important to manage these requests and ensure they are fulfilled in a professional and timely manner. The Idaho P-20 SLDS is being built with this in mind and the design has incorporated features to allow the creation of research ID's for each data set that minimize the potential exposure of PII, but still provide traceability if questions arise about the source data. This does not preclude re-identification of PII due to small samples of specific criteria in the extracted data set combined with other data sources, so each research request will require an MOU that includes the care and destruction of the data provided and ensures compliance with state and federal privacy regulations including FERPA. This includes a review before disclosure of any results to ensure that there is no exposure of PII and state requirements are met for minimum cell size display.

The purpose of this research website is to provide a simple standardized workflow interface for the creation, tracking, fulfillment, and audit of research data requests. There is no data access on this website, it is the front-end to control and administer research data requests. As each step is completed, the item will be marked completed and the date displayed – this provides a visual of where in the process the request is.

Here is a prototype of what the website would look like, and is based on what was presented at the 2011 SLDS Best Practices conference:

# IDAHO STATE BOARD OF EDUCATION

SBOE Home
Research & Statistics Home
K-12 Data
Advanced Opportunity Data
Postsecondary Data
Performance Measure Reports
Postsecondary Longitudinal Data System Updates
Reporting Instructions & Templates

## SLDS P-20 Data Research Requests

Project: Postsecondary Grad Rates of Minorities.

1. Submit Research Request Abstract:  
submitted: 10/12/11
2. Sponsor Assigned:  
SGrothe: 10/15/11
3. Sponsor Approval:  
done: 10/22/11
4. MOU Completed:  
done: 11/05/11
5. SQL Submission:  
done: 11/15/11
6. SQL Approval:  
done: 11/22/11
7. Data Management Council Approval:  
done : 11/24/11
8. Data Set Transfer:  
done: 11/25/11
9. Research Submission:  
open
10. Research Release:  
not started

(Researcher login) – Every researcher is required to register with the website – this ensures that we have contact information and will display only their research requests.

Explanation of Menu Items:

1. The request – this is the abstract of what the research project’s objectives are and what data is needed (including the timeframe and types of data – such as demographic, enrollment, graduation, etc.). This is utilized to determine who the internal sponsor should be, whether the SLDS is the correct data source, and to determine if the request can be satisfied by an existing solution such as the reporting portal. Any requests that pertain to a single institution or only K-12 data would be reviewed with the institution or SDE and either transferred to them or fulfilled out of the P-20 SLDS at their request.
2. Sponsor Assignment – every research request will be assigned a sponsor – the sponsor is responsible for guiding the request through the workflow.

3. Sponsor Approval – this is the first approval point, once this step has been completed by the sponsor (with comments), additional menu items are enabled to allow the project to proceed.
4. MOU completed – each research request that requires de-identified student level data will be required to have a separate MOU completed and approved.
5. SQL submission – if the researcher is capable of generating the SQL statement(s) necessary to extract the data, they would submit them via this menu option. If they need assistance, internal resource would be designated to complete this step.
6. SQL approval – the P-20W SLDS contains data that is owned by the SDE, SBOE, Department of Labor, etc. The SQL will be reviewed against the MOU's and a recommendation prepared for the Data Management Council. If necessary an internal resource would work with the researcher to modify and correct the SQL to ensure compliance with agreements.
7. Data Management Council Approval – this is the final approval point before data extraction and would alert the SLDS staff to create the dataset and contact the researcher. If the data request requires labor data, the Idaho Institutional Research Board would also review and approve the request.
8. Data Set Transferred – Idaho's postsecondary SLDS has a secure file transfer system that would be utilized to transfer the dataset to the researcher. The date displayed reflects the elapsed time to fulfill the request.
9. Research submission for approval – the researcher will transfer their final draft report for review to ensure no disclosure of PII.
10. Research approved – once the internal review is complete and any needed changes are made by the researcher, the researcher will be given approval to release the results. If possible, the research will be posted in the reporting portal or a brief description and a link will be created to inform others of the project and allow them to benefit from the efforts and avoid having to repeat the process for similar requests.

One of the key features shared at the 2011 IES SLDS conference presentation was the ability for the researcher to submit the proposed SQL scripts to be executed to create the data extract. The Idaho data model and data dictionary will be publicly available, this will transfer the burden from internal staff for determining the data needed and creating the SQL scripts. The internal resources can instead spend their time on the request reviewing the SQL scripts and should reduce the lead time to provide data.

A P-20W SLDS is only valuable if the data being collected is put to use to effect change, and the data owners realize the need for transparency and do not wish to impede the use of the information. It is critical to ensure that data is not misinterpreted and that

conclusions published are based on reliable and complete data by providing visibility into any limits, known issues, or missing data. At the 2011 SLDS Grant meeting, a presentation was given by Virginia that illustrated this workflow concept in interfacing the SLDS with researchers. Idaho's efforts will include reviewing how far they have progressed moving from design to implementation and we will leverage their efforts and/or share progress as the solution is implemented.

*Deliverables (Objective 3)*

- Requirements Gathering
  - Meet with potential users - internal and external
    - Determine areas of focus
    - Determine points of contact / participants
- Design & Architecture
  - Determine process flow
    - Determine an efficient process for handling requests
    - Develop cycle for review, approval, and fulfilling requests
  - Linking Metadata – ensuring the data is interpreted correctly
  - Determine data elements needed at each step
  - Develop standard MOU template
  - Design review with sample user set
  - Review and approval by the Data Management Council
- Development & Coding
  - Create web front-end
  - Create user management solution
  - Develop automated task management and assignment(workflow)
  - Develop data set tracking / auditing / reporting system
  - Legal review – MOU template
- QA & Test
  - Create sample research requests – internal and external
  - Data Management Council review of the website
  - Modification of processes / documentation
  - Test
    - Perform workflow to create standard reports
    - Internal research requests processed on limited data sets
- Implementation
  - Training
    - Create documentation – How to make a request
    - Conduct seminars with internal and external researchers
  - Research funding - provide funding to create research on key topics provided by the Data Management Council including:

- Making use of SLDS data – what can we learn
- Other topics as determined by the Data Management Council

c) **Timeline for Project Deliverables**

0	<b>FY 2012 SLDS Grant</b>	JUL 2012	JUN 2015
1	<b>ENHANCEMENTS TO THE EDUID SYSTEM</b>	<b>JUL 2012</b>	<b>JUL 2013</b>
1.1	Requirements Gathering	JUL 2012	NOV 2012
1.1.1	Assign / Hire / Contract Staff	JUL 2012	JUL 2012
1.1.2	Determine root causes	JUL 2012	SEP 2012
1.1.3	Determine Changes	OCT 2012	OCT 2012
1.1.4	Review other algorithms	OCT 2012	NOV 2012
1.1.5	Explore other Student matching methods	NOV 2012	NOV 2012
1.2	Design & Architecture	NOV 2012	DEC 2012
1.2.1	Create EDUID modification plan	NOV 2012	DEC 2012
1.2.2	Data Management Council design review & approve	DEC 2012	DEC 2012
1.3	Development & Coding	DEC 2012	JUN 2013
1.3.1	EDUID Modifications	DEC 2012	JUN 2013
1.3.2	Audit report creation	JAN 2013	FEB 2013
1.3.3	District & Institution upload changes	FEB 2013	APR 2013
1.3.3.1	Sub-grant - institution's & districts	FEB 2013	FEB 2013
1.3.3.2	Provide additional data	FEB 2013	APR 2013
1.4	Update Documentation	FEB 2013	APR 2013
1.4.1	Revise Documentation	FEB 2013	MAR 2013
1.4.2	Review updates	APR 2013	APR 2013
1.4.3	Publish	APR 2013	APR 2013
1.5	Q.A. & TEST	APR 2013	MAY 2013
1.5.1	Data Management Council Review	APR 2013	APR 2013
1.5.2	Update and correct existing data	APR 2013	APR 2013
1.5.3	TEST	APR 2013	MAY 2013
1.5.3.1	Run Audit Reports	APR 2013	MAY 2013
1.5.3.2	Determine if additional changes warranted	MAY 2013	MAY 2013
1.6	IMPLEMENTATION	MAY 2013	JUL 2013
1.6.1	DMC Review & Approval	JUN 2013	MAY 2013
1.6.2	Move to Production	JUN 2013	MAY 2013
1.6.3	Training	MAY 2013	JUL 2013
1.6.3.1	Develop Training	MAY 2013	JUL 2013
1.6.3.2	Host web based training	JUL 2013	JUL 2013

1.6.3.3	Develop and Deliver FAQ's	JUL 2013	JUL 2013
1.6.4	Turnover	JUL 2013	JUL 2013
1.6.4.1	Move to support	JUL 2013	JUL 2013
1.6.5	Final Report	MAY 2013	JUL 2013
1.6.5.1	Research Report - Effects on Match Rate	MAY 2013	JUL 2013
1.6.5.2	Publish to Public Domain Clearinghouse	JUL 2013	JUL 2013
2	<b>RESEARCH DATA REQUEST WEBSITE</b>	<b>JUN 2013</b>	<b>JAN 2015</b>
2.1	Requirements Gathering	JUN 2013	JUL 2013
2.1.1	Meet with potential users - internal and external	JUN 2013	JUL 2013
2.1.1.1	Determine areas of focus	JUN 2013	JUL 2013
2.2	Design & Architecture	JUL 2013	JAN 2015
2.2.1	Determine Process flow	JUL 2013	SEP 2013
2.2.1.1	Determine process for handling requests	JUL 2013	AUG 2013
2.2.1.2	Develop cycle - review/approve/fulfill	AUG 2013	SEP 2013
2.2.2	Metadata	SEP 2013	AUG 2014
2.2.2.1	Design publishing solution	SEP 2013	MAR 2014
2.2.2.2	Design format	MAR 2014	AUG 2014
2.2.3	Data Elements	AUG 2014	JAN 2015
2.2.3.1	Analysis	AUG 2014	OCT 2014
2.2.3.2	Mapping – reports	AUG 2014	DEC 2014
2.2.3.3	Mapping - Critical Questions	DEC 2014	JAN 2015
2.2.4	MOU Template	OCT 2014	DEC 2014
2.2.4.1	Labor	OCT 2014	NOV 2014
2.2.4.2	State Department	NOV 2014	DEC 2014
2.2.4.3	Institutions	NOV 2014	DEC 2014
2.2.5	Design Review	OCT 2014	OCT 2014
2.2.6	Data Management Council Approval	JAN 2015	JAN 2015
2.2.7	Workflow design	SEP 2013	OCT 2013
2.2.8	Assign / Hire / Contract Staff	AUG 2013	SEP 2013
2.3	Development & Coding	SEP 2013	DEC 2013
2.3.1	Create Web Front End	SEP 2013	NOV 2013
2.3.2	Create User Management solution	OCT 2013	NOV 2013
2.3.3	Develop ball-in-court workflow	NOV 2013	NOV 2013
2.3.3.1	Develop workflow	NOV 2013	NOV 2013
2.3.4	Develop data set control	NOV 2013	DEC 2013
2.3.4.1	Tracking	NOV 2013	DEC 2013
2.3.4.2	Auditing	NOV 2013	NOV 2013
2.3.4.3	Reporting	NOV 2013	NOV 2013
2.4	Legal Review	DEC 2014	JAN 2015

2.5	Q.A. & TEST	NOV 2013	FEB 2014
2.5.1	TEST	NOV 2013	FEB 2014
2.5.1.1	Process Sample Research Requests	NOV 2013	JAN 2014
2.5.1.2	Data Management Council Review	NOV 2013	NOV 2013
2.5.1.3	Process Modification	NOV 2013	DEC 2013
2.5.1.4	Internal Testing	DEC 2013	FEB 2014
2.5.1.4.1	Process Standard Reports	DEC 2013	JAN 2014
2.5.1.4.2	Internal research testing	JAN 2014	FEB 2014
2.6	IMPLEMENTATION	NOV 2013	FEB 2014
2.6.1	Training	NOV 2013	JAN 2014
2.6.1.1	Create Documentation	NOV 2013	JAN 2014
2.6.1.2	Conduct Seminars	JAN 2014	JAN 2014
2.6.2	Move to support	FEB 2014	FEB 2014
2.6.3	Research Funding	NOV 2013	JAN 2014
2.6.3.1	Making use of SLDS Data	NOV 2013	JAN 2014
3	<b>Workforce Long. Database &amp;P-20W SLDS BUILD</b>	<b>JUL 2012</b>	<b>JUN 2015</b>
3.1	Project Wide Costs	JUL 2012	JUN 2015
3.1.1	Travel - SLDS conferences, 3ea x 3yrs x 2/yr	JUL 2012	JUN 2015
3.1.2	Project Coordination assistance	JUL 2012	JUN 2015
3.1.3	Overhead Allocation	JUL 2012	JUN 2015
3.1.4	Database Project Manager	JUL 2012	JUN 2015
3.1.5	Program Manager (25% - supplied by SBOE - in kind)	JUL 2012	JUN 2015
3.1.6	Financial Technician	JUL 2012	JUN 2015
3.1.7	IDOL Labor	JUL 2012	JUN 2015
3.1.8	Overheads and Indirects	JUL 2012	JUN 2015
3.2	Requirements Gathering	JUL 2012	MAY 2015
3.2.1	Meeting - IDOL, IHE's, SDE	JUL 2012	MAY 2015
3.2.1.1	Determine Team members	JUL 2012	JUL 2012
3.2.1.2	Establish meetings	JUL 2012	JUL 2012
3.2.1.3	Weekly Meetings	JUL 2012	MAY 2015
3.2.1.4	Refine Project Plan (milestone, goals & objectives)	JUL 2012	AUG 2012
3.2.1.5	Data Management Council Review	AUG 2012	AUG 2012
3.2.1.6	Establish labor implementation sub committee	AUG 2012	AUG 2012
3.2.1.7	Create Idaho Institutional Review Board	JUL 2012	MAR 2013
3.2.1.8	Determine Research Agenda	AUG 2012	OCT 2012
3.2.1.9	Assign / Hire / Contract Staff	AUG 2012	SEP 2012
3.3	Design & Architecture	OCT 2012	MAR 2013

3.3.1	Database Designs	OCT 2012	NOV 2012
3.3.2	Labor Configuration	OCT 2012	DEC 2012
3.3.2.1	Data Elements	OCT 2012	OCT 2012
3.3.2.2	Security	OCT 2012	NOV 2012
3.3.2.3	Develop and cat conf. and privacy protocols	NOV 2012	DEC 2012
3.3.3	P-20W SLDS added elements	OCT 2012	DEC 2012
3.3.3.1	Data Elements	OCT 2012	NOV 2012
3.3.3.2	Security	NOV 2012	NOV 2012
3.3.3.3	Aggregation Level	NOV 2012	DEC 2012
3.3.4	Data Management Council	DEC 2012	JAN 2013
3.3.4.1	Review other sources	DEC 2012	JAN 2013
3.3.5	Determine Required MOU's	JAN 2013	MAR 2013
3.3.6	Matching Methods	DEC 2012	JAN 2013
3.3.6.1	Explore	DEC 2012	JAN 2013
3.3.7	Define Standard reports	JAN 2013	MAR 2013
3.3.8	Define reporting portal	JAN 2013	FEB 2013
3.4	Development & Coding	NOV 2012	JUN 2015
3.4.1	Develop MOU's	NOV 2012	JUN 2013
3.4.1.1	Develop based on IDOL templates	NOV 2012	JUN 2013
3.4.1.2	Working Sessions	NOV 2012	MAY 2013
3.4.2	Labor Unique ID's (LABUIDS)	NOV 2012	DEC 2012
3.4.2.1	Exchange Table Development	NOV 2012	DEC 2012
3.4.3	Hardware	NOV 2012	APR 2015
3.4.3.1	Servers – SBOE	OCT 2014	APR 2015
3.4.3.1.1	Procure hardware and software	OCT 2014	JAN 2015
3.4.3.1.2	Installation	FEB 2015	FEB 2015
3.4.3.1.3	Configuration	FEB 2015	MAR 2015
3.4.3.1.4	Database Installation	MAR 2015	APR 2015
3.4.3.2	Servers - Department of Labor	NOV 2012	MAY 2013
3.4.3.2.1	Procure hardware and software	NOV 2012	MAR 2013
3.4.3.2.2	Installation	MAR 2013	MAR 2013
3.4.3.2.3	Configuration	MAR 2013	APR 2013
3.4.3.2.4	Database Installation	APR 2013	MAY 2013
3.4.4	Database Development	MAR 2013	SEP 2014
3.4.4.1	P-20 SLDS to P-20W SLDS	MAR 2013	MAY 2013
3.4.4.2	Idaho Longitudinal Workforce Database	MAR 2013	SEP 2014
3.4.4.2.1	Programming	MAR 2013	SEP 2014
3.4.4.2.2	Web tool and automation	JAN 2014	SEP 2014
3.4.4.2.3	Develop data linkages	APR 2014	SEP 2014



3.4.5	SFTP process creation	SEP 2014	OCT 2014
3.4.6	Develop Labor Data Request Process	OCT 2014	DEC 2014
3.4.7	Develop Standard data access	OCT 2014	NOV 2014
3.4.8	Develop Standard reports	OCT 2014	NOV 2014
3.4.9	QA & Test	OCT 2014	JAN 2015
3.4.9.1	Execute sample data sets	OCT 2014	NOV 2014
3.4.9.2	Evaluate matching	NOV 2014	DEC 2014
3.4.9.3	Validation of data aggregate vs. detail	DEC 2014	JAN 2015
3.4.10	Implementation	SEP 2014	MAY 2015
3.4.10.1	Training	SEP 2014	MAY 2015
3.4.10.1.1	Create Documentation	DEC 2014	FEB 2015
3.4.10.1.2	Conduct Seminars	FEB 2015	FEB 2015
3.4.10.1.3	Research - Grant to Institution	SEP 2014	MAY 2015
3.4.11	Reporting - Labor Outcomes	JAN 2015	JUN 2015
3.4.11.1	Incorporate outcomes -- Idaho Fact Book - internal \$	FEB 2015	FEB 2015
3.4.11.2	Provide reporting to SBOE	JAN 2015	MAR 2015
3.4.11.3	Provide Reporting to SDE	JAN 2015	MAR 2015
3.4.11.4	Address key policy questions regarding outcomes	MAR 2015	MAY 2015
3.4.11.5	Create standard Labor Reports	APR 2015	JUN 2015
3.4.11.6	Create Labor reporting Portal Data	APR 2015	May 2015
3.5	Publish Summary Outcome measures	JUN 2015	JUN 2015

The project includes sub-grants to K-12 school districts averaging \$750 per district, and the IHE averaging \$1,000 per institution, totaling \$120,500. The purpose is to offset the cost of supplying additional data elements on historical data and altering processes and entry/upload routines as required. The assumption is that changes required at K-12 districts will be minor and the majority of the changes will take place with the IHE. SDE's participation will be covered by SBOE as identified in the budget narrative.

#### **d) Project Management and Governance Plan**

##### ***Project Management***

The outcomes of this grant will be the responsibility of SBOE, despite part of the work being performed by IDOL. The various outcomes will be divided into projects that roll up to the master schedule, which SBOE will manage and control. The SBOE and IDOL Project Managers will work with stakeholders to further identify tasks and assign responsibilities based on a framework for project management which typically includes scope, time, cost, quality and communication management. The processes involved in the framework will be audited on a quarterly basis to ensure consistency and adherence to the intended project outcomes. Each part of this project will

