

R372 A 120039

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

Application for Federal Assistance SF-424		
* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application		
* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision		
* If Revision, select appropriate letter(s): [] * Other (Specify): []		
* 3. Date Received: 12/15/2011		4. Applicant Identifier: []
5a. Federal Entity Identifier: []		5b. Federal Award Identifier: []
State Use Only:		
6. Date Received by State: []		7. State Application Identifier: []
8. APPLICANT INFORMATION:		
* a. Legal Name: Delaware Department of Education		
* b. Employer/Taxpayer Identification Number (EIN/TIN): 516000279		* c. Organizational DUNS: 8788921240000
d. Address:		
* Street1: 401 Federal Street Suite 2		
Street2: Townsend Building		
* City: Dover		
County/Parish: Kent		
* State: DE: Delaware		
Province: []		
* Country: USA: UNITED STATES		
* Zip / Postal Code: 19901-3639		
e. Organizational Unit:		
Department Name: []		Division Name: []
f. Name and contact information of person to be contacted on matters involving this application:		
Prefix: Mr.		* First Name: Robert
Middle Name: []		
* Last Name: Czeizinger		
Suffix: []		
Title: Director		
Organizational Affiliation: []		
* Telephone Number: 3027354140		Fax Number: 3027394140
* Email: rceizinger@doe.k12.de.us		

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:**

Expanding Delaware's Insight Data Warehouse Reporting and Instructional Improvement Capabilities (Insight Plus)

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="4,628,250.00"/>
* 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="4,628,250.00"/>

*** 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:

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

1. Project Director:

Prefix:	* First Name:	Middle Name:	* Last Name:	Suffix:
Mr.	Robert		Ceizinger	

Address:

* Street1:	401 Federal Street
Street2:	Suite 2
* City:	Dover
County:	Kent
* State:	DE: Delaware
* Zip Code:	19901
* Country:	USA: UNITED STATES

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

3027354140	3027394221
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Email Address:

rceizinger@doe.k12.de.us

2. Applicant Experience:

Novice Applicant Yes No Not applicable to this program

3. Human Subjects Research

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

Yes No

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

Yes Provide Exemption(s) #:

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No Provide Assurance #, if available:

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Please attach an explanation Narrative:

	Add Attachment	Delete Attachment	View Attachment
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PROJECT ABSTRACT

Title: Expanding Delaware's Insight Data Warehouse Reporting and Instructional Improvement Capabilities (Insight Plus)

Priority Area: K-12 System Data

Organization: DDOE in collaboration with all Delaware LEAs and Charter Schools.

Description: This project will leverage work completed by the DDOE under Race to the Top by addressing data gaps and providing support to enable all users to effectively and easily use educational information for data driven management. The DDOE will complete a significant phase in its construction of a P-20 longitudinal data system to support Delaware schools mid-2012. That is when the Insight Data Warehouse and the Insight Dashboard projects will deliver a functional system for decision support. While this is a milestone for functionality, the system will require substantial new resources to meet the requirements of a fully functioning and sustainable longitudinal data system. The success DDOE has demonstrated in designing and implementing the Warehouse and Dashboard has positioned us now to engage the next phase—achieving a significant reliance upon the K-12 SLDS for decision making, reporting, and research such that legacy systems and processes can be retired. This initiative has the support and endorsement of all school district superintendents in Delaware.

Expected Deliverables: Three project deliverables are key in this next phase. DDOE must respond to the needs of teachers and schools to add content to the Insight Dashboard's analytic and reporting capabilities. The top of the user priority list is local assessment scores that can be linked to the other data already in the Data Warehouse tables. This first project will assist teachers to build their local assessments, present them on-line to their students, score them, and analyze the results for interpretation within the context of their own curriculum.

The second deliverable is to train and support all users of the Insight Data Warehouse and Dashboard to improve and maintain data quality as well as to ensure proper interpretation and use of the data and reports from the Insight Dashboard. In addition to direct training activities, this project will create an on-going resource of materials for training and support.

The third deliverable is to complete the migration of legacy repositories and reports to the Insight Data Warehouse. Only 33 source repositories and a few of their standard reports were initially included in the funding for building of the data warehouse. There remain all the other legacy repositories that the schools, districts, and DDOE staff manage. This project will reduce staff burden while eliminating the opportunity for redundancy with the data warehouse.

The technology initiative begun by the Insight Data Warehouse and Dashboard to improve data quality and increased data for decision-making will lose momentum without a new funding source. The initiative logically continues its momentum with these three projects, adding content, training users, and migrating the remaining legacy repositories.

6. Project Narrative

The DDOE will complete a significant phase in its construction of its P-20 Statewide Longitudinal Data System (SLDS) to support Delaware schools mid-2012 when the Insight Data Warehouse and the Insight Dashboard projects will deliver a functional system for decision support. This is a comprehensive and integrated warehouse supporting a series of performance management dashboards that have been constructed using the EdFi standard (www.ed-fi.org). This is a significant milestone in terms of functionality. However, at this time, DDOE will require \$5 million over three years in funding to complete a fully functioning and sustainable longitudinal data system. The technology initiative that launched the Warehouse and Dashboard was envisioned by the P-20 Council and described in Delaware's Race to the Top application. The success DDOE has demonstrated in designing and implementing the Warehouse and Dashboard has positioned us now to engage the next phase—creating a significant reliance upon the P-20 SLDS for decision making, reporting, and research such that legacy systems and processes can be retired. This initiative has the support and endorsement of all school district superintendents in Delaware (See Appendix).

Three key projects are proposed in this next phase. DDOE must respond to the needs of teachers and schools to add content to the Insight Dashboard's analytic and reporting capabilities. The area at the top of their priority list is local assessment scores that can be linked to the other data already in the Data Warehouse tables. This first project, Local Assessment Builder (LAB), will assist teachers to build their local assessments, present them on-line to their students, score them, and analyze the results for interpretation within the context of their own curriculum.

The second project, Delaware Data-Driven Analysis Program (3DAP), will train and support all users of the P-20 SLDS to improve and maintain data quality, and to ensure proper interpretation and use of the data and reports from the Insight Dashboard. In addition to direct training activities, this project will create an on-going resource of materials for training and support.

The third project, Legacy Migration (LM), will complete the migration of legacy repositories and reports into the Insight Data Warehouse. While 33 source repositories and a few of their standard reports were initially included in the funding of the contract for the building of the Data Warehouse there remain other legacy repositories (such as those supporting ED Facts and other federal reporting) that the schools, districts, and DDOE staff continue to fill and use to manage reports. This project will reduce burden while eliminating the opportunity for duplication within the Data Warehouse.

Thus, the technology initiative begun by the Insight Data Warehouse and Dashboard with their momentum toward improved data quality and increased data for decision-making will fall back to a slow pace mid-2012 without a new, significant funding source.

The initiative logically continues its momentum with these three projects by adding content, training users, and migrating the remaining legacy repositories.

On November 16, 2011, consultants from ESP Solutions, Group, Inc. (ESP) met with staff from Delaware Department of Education (DDOE) to explore possibilities, review best practices from across the states, describe the current status of systems within Delaware, and determine a direction to follow in designing programs that leverage the information system assets within Delaware. ESP is the prime contractor for the Insight Data Warehouse. Multiple alternatives were discussed including how to involve higher education, workforce agencies, health agencies, human services agencies, early childhood agencies, and others that potentially could improve the exchange of data for the benefit of students. For this effort, the decision was made to focus on K-12 education in order to take full advantage of the Insight Data Warehouse and the Insight Dashboard's capacities, and to acknowledge that the Department does not have the resources to do so on its own.

DDOE staff discussed a number of needs that have been identified in the recent months. From these, three were determined to be the highest priority and to be the highest potential for return on investment.

1. Delaware Local Assessment Builder (LAB)

The Delaware LAB Project is envisioned to create the capacity for Delaware schools and teachers to manage their own local assessments using both a national content library and local items. Teachers will also be able to both scan their paper tests and have their students take them online. Schools and districts will manage assessment data mapped to their curriculum and their benchmark assessments. With the capacity to upload these data to the Insight Data Warehouse, the users will be able to link to all the data there. For example, teacher data in the Insight Data Warehouse includes performance ratings, certification status, and highly qualified teacher status. For students, the data include elements such as statewide assessment scores, attendance, grades, and discipline. The Insight Dashboard and its reporting tools will then be available for analysis and reporting.

2. Delaware Data-Driven Analysis Program (3DAP)

The 3DAP is envisioned to provide the users of the Insight Dashboard and Warehouse the analytical tools, training, and support required to understand the data and make full and proper use of them. Users of all roles will be personally trained and have printed and on-line guidance materials available to them.

Data quality is significant because preventing poor data from ever entering the Insight

Data Warehouse saves resources from being used to edit and clean the data later. Training the data providers either at the school and district levels or in the program offices will be conducted. Improving the documentation they are provided will also be a priority.

As the quantity and complexity of the available data increases, and especially as the number of years of data grows, the challenges for users increase. DDOE will create guides documenting the definitions, disclaimers, assumptions, and parameters associated with the data; recommended uses; limitations of the data; sample analyses; and other advice for users to ensure proper interpretation. The media and format of these guides will vary to ensure that the users will find one that fits their style and needs.

3. Legacy Migration (LM)

The LM project is envisioned as the completion of the systems re-engineering begun by the Insight Data Warehouse. The Insight Data Warehouse brings data from 33 source repositories into a central data store for access by the Insight Dashboard. The Insight Dashboard in turn provides the new capacity for *ad hoc* queries, longitudinal analyses, and research. However, all of the 33 source repositories did not go away, and many legacy reports are still generated from them. In addition, there are many other legacy databases from which reports are generated, such as ED*Facts*. The impact of these legacy systems on DDOE, the schools, and districts is that there remains duplication in reporting, data checking, and processing. Without additional resources, DDOE does not have the capacity to convert these repositories to the Insight Data Warehouse and then to build new reports from those new tables. The LM project will provide the resources to make this migration begin at the time DDOE completes the final phase of the Insight Data Warehouse implementation.

Section (a): Need for the Projects

Delaware needs to seek additional external funding to support its efforts to build out the current K-12 statewide longitudinal data system. The needs are significant and cannot be met with State funds provided through current budgets. The Delaware Department of Education (DDOE) only has sufficient State funding to maintain the level of functionality that has been designed and provided by the State and federal resources associated with the Race to the Top grant that underwrote the building of the Insight Data Warehouse and the Insight Dashboard. Phase 1 of these two projects will be successfully completed and in production by April 2012. The projects continue through 2013 to bring in additional datasets for higher education, labor, and possibly other State agencies; and to add dashboards for additional stakeholders and users such as principals and administrators.

DDOE envisioned a comprehensive technology initiative that guided our successful Race to the Top application. The technology component of this grant provided \$6 million for identity management, project management, common course codes, electronic data exchange, data dictionary, and a client ID tracking system. This included the funding for a limited, first phase development of the Insight Data Warehouse (\$2 Million) and Insight Dashboard design (\$840,000). The build-out of the Dashboard will be completed internally by DDOE. Both are based on the Michael and Susan Dell Foundation Canonical Data Model, now EdFi data model.

However, the limited funding placed a cap on the number of data sources (i.e., legacy repositories) that could be identified for inclusion in the Data Warehouse in the first phase. This in turn limits both the content and the scope of the analyses and decisions that will initially be supported by the Dashboard.

The good news is that the architecture and design of the system are robust. Both the Insight Data Warehouse and the Dashboard will support expansion. The analytical tools and portal capability are available when the contents are there and the users are capable of taking advantage of them.

The Insight Dashboard interface, its analytical tools, and the processes for accessing the data are new and somewhat complex for the school, district, and DDOE users. There were funds in the Insight Data Warehouse and Dashboard projects for training and support of users and DDOE staff. However, these funds covered only the initial introduction of users to the new systems and their capabilities, and the required knowledge transfer from the contractors to the DDOE technical staff who will maintain the systems. Even though DDOE values professional development activities, the funding level of those projects was such that the priority was placed upon building well-architected and functioning infrastructure with the assumption that those had to work at the highest level of performance, then content and user skills could be added in a measured and controlled manner as resources became available.

Thus, DDOE, by mid-2012, will have in place an excellent data warehouse, dashboard, and analytical toolset—an infrastructure with which the Department can confidently collect, manage and present quality, longitudinal data for decision makers.

The Delaware P-20 Council was established in 2003 by Governor Ruth Ann Minner's Executive Order 47 and placed in statute in 2005. The Council is an inclusive organization designed to align Delaware's education efforts across all grade levels. Its main goal is to establish a logical progression of learning from early childhood to postsecondary education while reducing the need for remediation. With cooperation from State leaders, higher education, school administrators, the business community, and parents, the P-20 Council will be able to open more doors for Delaware's children and prepare them to become self-sufficient, contributing members of society who will continue to learn throughout their lives. The goals of the P-20 Council:

- Smooth transitions between these levels will make the schools more efficient and effective while raising the level of student achievement.
- Closing the achievement gap between majority and minority students.

The keys to achieving the goals of the P-20 Council include:

- A challenging curriculum taking into account expectations at the next level.
- Increased teacher recruitment, education, and professional development, especially in critical needs areas.
- An advisement or support system to help identify student problems early and prepare them for success across all levels of education.

In fiscal year 2012 House Bill 213 (HB 213, Attached) was introduced which allows for the sharing of data for required audits or evaluations imposed by state or federal law and allows for sharing of data for research questions approved by the P-20 Council that can help guide policy and practice for better outcomes for students. The legislations also expands the membership of the P-20 Council to include: Secretary of the Department of Labor, Secretary of the Department of Services for Children, Youth and their Families; Secretary of the Department of Health, Chief of the Delaware Chief School Officers Association, President of the Delaware State Education Association, and President of the Charter School Network (or their designees). A significant part also calls for regulations to be developed that governs data collection, analysis, use and reporting (See 'P20 Data Governance Handbook', Attached).

DDOE has used the P-20 Council goals and priorities along with those of its stakeholder groups to identify three priority needs we are ready to address—content, training, and migration.
