

R372A120036

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

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- Preapplication
- Application
- Changed/Corrected Application

*** 2. Type of Application:**

- New
- Continuation
- Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

*** 3. Date Received:**

Completed by Grants.gov upon submission.

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:**

Maryland State Department of Education

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

52-6002033

*** c. Organizational DUNS:**

1830714710000

d. Address:

*** Street1:**

200 W. Baltimore Street

Street2:

*** City:**

Baltimore

County/Parish:

*** State:**

MD: Maryland

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:**

21201-2549

e. Organizational Unit:

Department Name:

MD State Dept. of Education

Division Name:

Accountability & Assessment

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

Prefix:

Mrs.

*** First Name:**

Chandra

Middle Name:

*** Last Name:**

Haislet

Suffix:

Title:

Workforce Interagency Coordinator

Organizational Affiliation:

*** Telephone Number:**

410-767-0035

Fax Number:

*** Email:**

chaislet@msde.state.md.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:**

Extending, Blending and Using PK12/P20W Data for Career and College Readiness and Workforce Tracking, Policy Analysis and Policy Making.

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="\$3,963,473.00"/>
* b. Applicant	<input type="text" value="-0-"/>
* c. State	<input type="text" value="-0-"/>
* d. Local	<input type="text" value="-0-"/>
* e. Other	<input type="text" value="-0-"/>
* f. Program Income	<input type="text" value="-0-"/>
* g. TOTAL	<input type="text" value="\$3,963,473.00"/>

*** 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:
Mrs.	Chandra		Haislet	

Address:

* Street1:	200 W. Baltimore Street
Street2:	
* City:	Baltimore
County:	
* State:	MD: Maryland
* Zip Code:	21201
* Country:	USA: UNITED STATES

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

410-767-0035	
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Email Address:

chaislet@msde.state.md.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:

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Add Attachment Delete Attachment View Attachment
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5. Project Abstract: Extending, Blending, and Using PK12/P20W Data for Career and College Readiness and Workforce Tracking, Policy Analysis and Policy Making

This grant proposal focuses on Priority 3 “to develop and link postsecondary and/or workforce data with the State’s PK-12 data system.” This collaborative, multi-agency proposal has been developed by: (a) Maryland State Department of Education; (b) Maryland Higher Education Commission; (c) Maryland State Department of Labor and Licensing; (d) University System of Maryland; and (e) Maryland State Longitudinal Data Center and Advisory Board. Over the last 24 months, Maryland has been successful at expanding its PK12 data warehouse and its new P20W data warehouse. PK12 has been expanded to include early childhood and career and technology education data, and an online business intelligence dashboard analytics system. With Race to the Top funds, a multi-agency team is implementing a state-wide P20W policy-based longitudinal data warehouse.

Two goals shared by the PK12 SLDS and P20W SLDS are to provide: (1) progress and transition data about an individual’s and aggregated group’s education-work life-cycles, and (2) analytics to help policy makers improve decisions on education initiatives, curriculum alignments, and workforce programs. The PK12 SLDS and P20W SLDS both are experiencing challenges that prevent them from reaching full potential including: (a) gaps in data collections; (b) complexity in blending disparate data from multiple agencies; (c) presenting research that shows the value of the SLDS systems in decision making; and (d) training of key policy makers, such as state legislators, on how to use LDS data. To meet these challenges, this proposal has defined five proposal objectives with 15 subproject deliverables:

Objective 1- Expanded data collections of the SDLS Systems

Project 1.1 Implement private career school data collection and add data to P20W

Project 1.2 Implement juvenile services education data collection and add data to PK12 SLDS

Project 1.3 Implement adult GED data collection and add data to PK12 SLDS

Project 1.4 Implement adult correctional education data collection and add to PK12 SLDS

Objective 2 – Implement Data Standards and Improve Data Quality

Project 2.1 Implement a master data management system

Project 2.2 Implement a probabilistic directory data matching subsystem and web service

Objective 3 – Advanced Dashboards for Policy Decision Makers

Project 3.1 Develop PK12-P20W CTE curriculum alignment dashboard

Project 3.2 Develop PK12-P20W early college access outcome dashboard

Project 3.3 Develop College-to-Work CTE program outcome dashboard

Project 3.4 Develop P20W SLDS Education to Work Life-Span Summary dashboard

Objective 4 – SLDS Training and Professional Development for Policy Decision Makers

Project 4.1 Implement SLDS Research Training Academy

Project 4.2 Implement SLDS Legislators Training Academy

Objective 5 – Research in Using and Expanding SLDS Data

Project 5.1 Assessing STEM post-graduate student regional work retention

Project 5.2 Assessing the need for inclusion of online education data in the SLDS

Project 5.3 Assessing training and retention of early childhood workforce in Maryland

6. Project Narrative

A. PK12 and P20W Systems Status and Need for Project

A.1 Status of the PK12 SLDS

Maryland's PK12 State Longitudinal Data System (SLDS) was initiated in the late 1990's and has been undergoing enhancements with a 2009 SLDS grant. At present, the system meets the DQC and ACA requirements for a PK12 SLDS and the system is in full use.

The PK12 SLDS system consists of a cluster of subsystems that performs data collections from the LEAs, statistically control data quality assurance, and consolidates student, school, and test data from the LEAs, higher education, teacher certification systems, and various test agencies. Data is consolidated and stored in an Oracle 11g relational database, and has multiple traditional star-schema data marts. The operational data store is used for federal and state assurance reporting, such as EdFacts, and to feed various public information websites that report AYP and school performance information to the public. Additional reporting and online data analysis is supported by a new Oracle OBIEE business intelligence system. Currently, over 37 informational, education performance, and education accountability dashboards are under development with the aid of Race to the Top (RTTT) funds. Oracle Spatial is being used to create graphic geospatial dashboards.

For security, the PK12 SLDS uses https secured sockets and an Oracle IDM security subsystem to provide users with an enhanced two-token authentication and a role based authorization. Oracle Advanced Security, Oracle Masking, and Oracle Vault applications are used to help meet PII and FERPA security requirements allowing the systems to encrypt private student data, mask data, and provide access controls for the applications and database.

Data is transferred in and out of the systems through either direct data feeds, or batch data feeds using a secure master file transfer system.

Examples of recent enhancements to the PK12 SLDS include: (1) installation of a new business intelligence and security subsystems that will allow teacher, student and administrators access to dashboards; (2) addition of early childhood data and analytical dashboards; (3) addition of career and technology data and analytical dashboards; (4) linking student data for various data sets back to 2007 when the student identifier was implemented; (5) implementation of a standardized SCED course code subsystem; (6) addition of student grades and teacher data collection and linking; (7) state-wide electronic student transcript system; and (8) student progress and alerts dashboards.

The PK12 SLDS development and test environments are implemented in a VMware virtual environment with the production system implemented on dedicated non-VM servers. The system is supported by both a virtual backup and recovery subsystem, and a disaster recovery site.

End-users access the OBIEE dashboards through an Oracle Portal that has single sign-on capability that integrates with OBIEE. The portal also houses end-user training material such as online multimedia training modules for each of the dashboards. The external portal page may be viewed at <http://p12lds.msde.state.md.us>. Appendix 1 and Appendix 2 are diagrams of the high-level architecture.

A.2 Status of the P20W SLDS

In 2010, Senate Bill 275 created the Maryland State Longitudinal Data Center. This educational policy analysis and data center is the home of the new P20W SLDS. The new SLDS is being built by the Maryland State Department of Education (MSDE) PK12 SLDS team with \$2 million from the RTTT funds. The P20W SLDS uses the same architecture and technology stack as the PK12 SLDS including an Oracle 11g database, business intelligence suite, security suite, portal suite, and GIS database. The P20W SLDS development and test environments are implemented on the same VMware virtual platform as the PK12 SLDS system which allows for economy-of-scale and software licensing ROI savings. The P20W production system is implemented on dedicated non-VM servers.

The P20W SLDS is designed to be a policy-based decision support system. The database and business intelligence system dashboards contain data and analytics that are designed to answer educational policy questions. The initial list of specific education and workforce policy questions the system is designed to answer is below in Appendix 3.

The development of the P20W SLDS is completing its first year. Accomplishments to date include: (1) a full PMOBK/SDLC implementation methodology and tracking project portal; (2) installation of development and test virtual environments; (3) implementation of an operational portal for the Center; (4) development of a test master individual identification cross-walk table for cross-referencing multi-agency data; (5) implementation of a cross-application data dictionary; and (6) initiation of the data map and gap process, metrics design, and base design for each of the policy questions.

The P20W SDLC database is a hybrid consisting of a relational operational data store with star-schema data marts. The operational data store and data marts will be receiving data via a secure, master file transfer system from the MSDE PK12 SLDS, Maryland Higher Education Commission (MHEC) higher education data warehouse, and the Maryland Department of Labor, Licensing and Regulation (DLLR) data warehouse.

A.3 Maryland's Vision for the SLDS Systems and the Proposed Project

Maryland's vision for its education longitudinal data and analysis systems is that they become an integrated data network that supports just-in-time analysis to improve education policies and delivery of education. The four goals of the vision are to better: (1) service the education needs of Maryland citizens to compete in the local job market and global economy; (2) understand how well the K12, professional, and higher education systems align and prepares students for their selected career paths; (3) understand how the labor market is serviced, and not serviced, by the

