

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) #:

No Provide Assurance #, if available:

Please attach an explanation Narrative:

Add Attachment

Delete Attachment

View Attachment

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

existing career preparation and readiness education services and strategies; and (4) understand how to use SLDS information to improve educational policy and program decision making.

The proposed grant has defined five objectives and 15 outcomes that are designed to transform the four goals of the Maryland SLDS vision into operational and analyzable data for performance tracking and policy decision support. Common to all the vision goals is the need to: (1) expand data collections (Objective 1); (2) implement data standards and improve data quality especially in the area of individual data tracking across K12, higher education, and workforce (Objective 2); (3) improve access to information for policy decision makers (Objective 3); (4) provide SLDS training and professional development for researchers and decision makers to ensure the longitudinal data is optimally used (Objective 4); and (5) further career and college preparation, readiness, and workforce outcome research using longitudinal data (Objective 5). Further clarification of how the grant proposal projects map to realizing the Maryland SLDS vision and the need for the projects are discussed in subsequent sections.

A.4 Meeting the Grant’s Baseline Requirements and Identifying Gaps in SLDS

This section identifies Maryland’s current capabilities, gaps, and ability to meet the baseline requirements listed in Section “IV Priorities and Requirements” of the grant application. Of the 21 baseline requirements, 14 are fully met with seven areas needing improvement. The seven areas in need of improvement are addressed by the proposal’s five objectives and the 15 outcomes. The needs for enhancing the seven key areas are addressed in the next section, A.5. Appendix 4 discusses in detail how Maryland meets the baseline requirements and what gaps have been identified. A high level summary of how Maryland meets the baseline requirements and the areas of its SLDS gaps is as follows:

1. Demonstrate Partnerships	Meets Requirement
2. Postsecondary data for America Competes Act	Area for Improvement
3. Data and Data-use Tools	Meets Requirement
4. Governance	Meets Requirement
5. Institutional Support	Meets Requirement
6. K12 Sustainability	Meets Requirement
7. P20 Sustainability	Meets Requirement
8. Privacy and Data Accessibility	Meets Requirement
9. Data Quality	Area for improvement
10. Interoperability	Area for improvement
11. Enterprise-wide Architecture	Area for improvement
12. Secure Access	Meets Requirement
13. Data Use Deliverables.	Area for improvement
14. Data Use: K12 Feedback	Meets Requirement
15. Data Use: Consumer Information	Meets Requirement
16. Data Use: Postsecondary Feedback	Area for improvement
17. Training	Meets Requirement
18. Professional Development on Data Use	Area for Improvement
19. Evaluation	Meets Requirement
20. Partnerships with Research Community	Meet Requirements

A.5 Definition, Need, and Value of Proposed Projects to Fill SLDS Gaps

Seven major gaps have been identified that affect PK12 SLDS and P20W SLDS in the areas including: (1) data completeness; (2) data quality; (3) ability to link data (interoperability); (4) data usage; and (5) end-users skills that would impede the adoption of the SLDS for decision support. Five grant objectives that consist of 15 outcomes have been defined. This section describes each of the project outcomes, why it is needed, how it will fill the gaps in Maryland's SLDS strategy, and how the project outcome will ultimately improve education, education delivery, accountability reporting, or the use of the SLDS systems.

A.5.1 Objective 1- Expanded data collections of the SLDS Systems - The Purpose of objective one is to expand data collections of educational data for populations that are not in the SLDS systems. The projects include building data collections and adding student data to the PK12 SLDS and the P20W SLDS for juvenile corrections education data, GED adult education data, adult correctional educational data, and professional trade school education data. **The Gap** these projects fill is to improve postsecondary data required by America COMPETES Act (Requirement 2). **Key value and Outcomes:** This expansion of SLDS data will focus on improving career and college readiness policy and program planning for these population segments that receive limited career and college preparation and readiness resources. This population is of critical interest because they are typically in high need of transition support in order to enter the labor force productively. By enhancing SLDS data and its feeder systems the data collection outcomes will: (1) improve identification of the needs of these student populations; (2) create better transparency as to the services being delivered (or not being delivered); (3) improve program creation and funding; and (4) improve accountability to determine if the education services are successful in helping these students transition to other education activities or successful transitioning into the workforce. The projects proposed are as follows:

- Project 1.1 Implement private career school data collection and add data to P20W project.
 - This project will convert a required paper form submission process into an online system that collects private career school student data and distributes it to the P20W and PK12 SLDS systems.
- Project 1.2 Implement juvenile services education data collection and add to PK12 SLDS.
 - This project will implement a new standard in the student information system to add student data from 14 facilities into the PK12 SLDS.
- Project 1.3 Implement adult GED data collection and add data to PK12 SLDS.
 - This project is to implement a GED management and tracking subsystem and pass the data to the PK12 SLDS for performance, outcome, and accountability tracking.
- Project 1.4 Implement adult correctional education data collection and add to PK12 SLDS.
 - This project is to implement an adult correctional education data management system and pass the data to the PK12 SLDS for performance, outcome, and accountability tracking.

A.5.2 Objective 2 – Implement Data Standards and Improve Data Quality - The Purposes of objective two include the implementation of a master data management tool, implementation of a

web service that higher education agencies can use to retrieve Maryland K12 student unique identifiers, and the implementation of a probabilistic matching tool to help improve the data standardization and matching of non-uniform data coming in from the various legacy systems of multiple agencies. **The Gaps these projects fill are to** help the PK12 SLDS and P20W SLDS system consolidate and track an individual's data that comes from multiple agency systems. While MSDE uses directory data and a unique student identifier, MHEC and DLLR use Social Security Numbers (SSN). Currently, MSDE uses a five-layer deterministic matching module written in SAS which achieves a 70% match rate of an individual's data coming in from other systems. Research suggests that probabilistic matching algorithms can significantly improve match rates. Current projects are underway to add directory data to the higher education data collections and pass the K12 unique student identifier to the post-secondary institutions of learning through electronic transcripts. However, even if all agencies were to provide directory data the matching and standardizing of an individual's data that comes into the PK12 SLDS and the P20W from the various agencies will still be a challenge without advanced software solutions. Therefore the gaps we are trying to specifically fill are: (1) improving the quality of data matching throughout an individual's education life-span where different identification methods are used to track education information (Requirement 9); and (2) improve interoperability and enterprise-wide architecture of different agency systems by being able to easily translate data to a standardized format across legacy systems (Requirements 10 and 11). **Key values and outcomes:** Improving the standardization of data and improved matching methods to link an individual's data coming from different agencies will: (1) improve linking of an individual's education data over the education-life span when reported by different systems; and (2) increase the number of individuals that SLDS systems will include in analysis data sets. Improvements in data sets will improve and impact the validity and analysis of trends, student needs, program delivery, and accountability and performance analyses. We expect that by enhancing the quality of the SLDS data analyses, use of the SLDS systems will increase and improve the data driven decisions made by policy and program funders and makers. The projects proposed are as follows:

- Project 2.1 Implement a master data management system.
 - This project will purchase and implement a small master data management COTS system. It will be set up to translate multi-agency data to the CEDS standard and used as the cross-walk table to link data for an individual across multiple agency systems with different identification methods.
- Project 2.2 Implement a USIS web service and a probabilistic data matching subsystem.
 - This project will modify existing code to the Maryland unique student identifier system (USIS) and combine it with a probabilistic data matching subsystem allowing: (1) post-secondary schools to submit student data and to retrieve Maryland K12 student's unique identifier for addition to their systems; and (2) enable probabilistic matching on an individual's data submitted by multiple agencies.

A.5.3 Objective 3 – Advanced Dashboards for Policy Decision Makers -The Purpose of

Objective 3 is to develop several key, postsecondary-to-workforce outcome tracking, performance, and accountability dashboards. These dashboards specifically look at transitions of students from K12 into postsecondary education paths and into the workforces. Critical analyses of these dashboards focus on curriculum alignments, preparation for STEM careers, entrance into

the workforce, and regional work force retention. **The Gaps** these projects fill are to improve data use, data analysis, and focuses on education preparation and work force entrance for STEM and CTE careers (Requirements 13, 14, 15 and 16). The PK12 SLDS and the new P20W SLDS lack full development of career and college preparation, readiness, and transition dashboards for assessing education effectiveness, remediation, and effectiveness of transitions between K12 and P20 education into the work forces. **Key values and outcomes:** Expanding SLDS data dashboards will improve integration of data across the education life-span and further allow examination of career and college readiness policies, and education program planning to meet the challenges of the 21st century labor market. Appendix 6 shows an example of a proof-of-concept (non-working) mock-up for an aggregate, full life-cycle dashboard that would be developed and implemented. The projects proposed are as follows:

- Project 3.1 Develop PK12 to P20W CTE and K12 Community College curriculum alignment dashboard.
 - This dashboard consolidates data to look at the transition of K12 CTE students into postsecondary trade schools, community colleges, and 4-year colleges in order to assess remediation, successful graduation and transition to workforce outcomes.
- Project 3.2 Develop PK12 to P20W early college access outcome dashboard.
 - This dashboard tracks K12 students that take local college courses while in high school and assesses the types of courses taken and the success of transition rates to college of early college attendees vs. K12 non-early attendees.
- Project 3.3 Develop College-to-Work CTE program outcome dashboard.
 - This dashboard reports on key factors that promote a successful transition for K12 CTE students directly to the workforce.
- Project 3.4 Develop P20W SLDS Education to Work Life-Span summary dashboard
 - This dashboard summarizes key metrics that describe career and college preparation, readiness, and transitions from K12 to work, from K12 to higher education, and from P20 students into the workforce.

A.5.4 Objective 4 – SLDS Training and Professional Development for Decision Makers - The Purpose of objective four is twofold: (1) to develop advanced researchers and analysts by providing educational skills and opportunities to utilize the SLDS systems to answer policy questions and to research education program outcomes; and (2) to develop a training program for state legislators in order to build an awareness of the value and utility of the SLDS systems. **The Gap** these projects fill is to improve and expand professional development on data use particularly with top State policy leaders (Requirement 18). **Key values and outcomes:** (1) To create a trained researcher pool that understands how to correctly use the data, perform education research, and support Maryland decision makers; and (2) to promote the integration of data into decision-making by legislators using the SLDS systems. Legislators and supporting researchers will learn how to use the SLDS in decision making. The project will also help to build legislative support to pass sustainable operational SLDS system budgets. The projects proposed are as follows:

- Project 4.1 Implement a SLDS Research Training Academy
 - This project runs as a graduate student seminar for an academic semester and is available for credit to advanced graduate students. The seminar may also serve as an internship on

the SLDS system staffs. Weekly longitudinal research training lectures are supplemented by data fellows performing a significant SLDS research project under the guidance of an academic mentor.

- Project 4.2 Implement SLDS Legislators Training Academy
 - This project provides for Maryland State legislators a one day hands-on training on how to use and perform research using the SLDS systems. The training will also make available SLDS support services, provide a help desk, and provide information on how to use the online data request process to request data or support services from the SLDS operations teams.

A.5.5 Objective 5 – Research in Using and Expanding SLDS Data –

The Purpose of Objective 5 is to perform applied longitudinal educational outcome research in areas of P20W transitions, preparation impact on work force transition, and future expansion of the SLDS data sets. The projects were selected based on the high level of interest in the topics to Maryland legislators and the Governor. **The Gaps** these initial research projects fill are in promoting data use (Requirement 16), professional development on data use (Requirement 18), and developing partnerships with research community (Requirement 20). **Key values and outcomes:** Lay program foundation with associated processes for developing and funding applied SLDS research that focuses on career and college preparation, readiness, and transition to workforce using the SLDS systems. The projects proposed are as follows:

- Project 5.1 Assess STEM post-graduate student regional work retention.
 - This research project develops requirements for a University System of Maryland data collection that tracks post-graduate STEM job acceptance, and provides dashboards that map and investigate geographical migration patterns in the region looking at issues associated with STEM state “brain-gain” or “brain-drain” patterns.
- Project 5.2 Assess need for inclusion of online education data into the SLDS.
 - This research project investigates the accelerated rate of adoption of online education and associated degree granting in post-secondary education. The research explores the impacts and issues of including and excluding online issued degrees and credits granted by online institutions.
- Project 5.3 Assess training and retention of early childhood workforce in Maryland.
 - This research project investigates the training and retention of early childhood professionals using SLDS and workforce data, and discusses trends and challenges facing Maryland’s early childhood in meeting current and future public service demand.

B. Summary of Key Measurable Deliverables for Proposed Projects

This section lists the key unique deliverables for each proposed project. Maryland follows its own system development life cycle (SDLC) methodology with required deliverables for information technology projects (See <http://doit.maryland.gov/SDLC/Pages/SDLCHome.aspx>). All projects regardless of their nature are minimally required to have a: Project Charter; Project Scope; Project Plan; Staffing Plan; Budget Plan; Implementation Plan; Communication Plan; Issue Log; and User Satisfaction Survey. Information technology projects are also minimally required to have: Functional Requirements; System Design Document; Software Development

Document; Test Plan and reports; Integration and Conversion Plan; User Manuals; Training; Operations Manual; and Rollout Plan. These deliverables are not replicated for each project, but are listed as part of the deliverables listed in the project timelines in Section C.

B.1 Objective 1 - Key Project Deliverables for Expanded data collections of the SLDS

- Project 1.1 Implement private career school data collection and add data to P20W project.
 - Data entry screens and programs for data collection
 - Data structures for longitudinal data storage
 - Tracking & accountability dashboard
 - ETL programs to transfer private career student school data to SLDS systems
- Project 1.2 Implement juvenile services education data collection and add to PK12 SLDS.
 - Implementation of a COTS student information system
 - ETL programs to transfer juvenile services education data to SLDS systems
- Project 1.3 Implement adult GED data collection and add data to PK12 SLDS.
 - Implementation of new COTS GED tracking system
 - ETL programs to transfer GED data to SLDS systems
- Project 1.4 Implement adult correctional education data collection and add to PK12 SLDS.
 - Implementation of new COTS adult correctional education student information tracking system
 - ETL programs to transfer adult correction education information to SLDS systems

B.2 Objective 2 - Key Project Deliverables for Improved Data Standards and Data Quality

- Project 2.1 Implement a master data management system.
 - Implement a master data management system
 - Implement a tracking and accountability master data management dashboard
 - Standard project management documents as listed in opening paragraph
- Project 2.2 Implement a USIS web service and probabilistic data matching subsystem.
 - Implement a web service submission subsystem for USIS to match K12 individual student unique identifiers to students attending University System of Maryland colleges.
 - Implement a probabilistic data matching system to improve USIS-student directory matching.

B.3 Objective 3 - Key Project Deliverables for Advanced Dashboards

- Project 3.1 Develop PK12 to P20W CTE K12 to community college curriculum alignment dashboard.
 - Dashboard
 - Database Schema
 - ETL programs to transfer data to other SLDS systems
 - Multimedia training aid
- Project 3.2 Develop PK12 to P20W early college access outcome dashboard project.
 - Dashboard
 - Database Schema
 - ETL programs to transfer data to other SLDS systems
 - Multimedia training aid
- Project 3.3 Develop College-to-Work CTE program outcome dashboard.
 - Dashboard

- Database Schema
- ETL programs to transfer data to other SLDS systems
- Multimedia training aid
- Project 3.4 Develop P20W SLDS Education to Work Life-span Summary dashboard.
 - Dashboard
 - Database and Schema
 - ETL programs to transfer data to other SLDS systems
 - Multimedia training aid

B.4 Objective 4 – Key Project Deliverables for SLDS Training and Professional Development for Policy Decision Makers

- Project 4.1 Implement SLDS Research Training Academy.
 - Curriculum
 - Final Project Papers
 - Seminar satisfaction survey
- Project 4.2 Implement SLDS Legislators Training Academy.
 - Curriculum
 - Satisfaction Survey

B.5 Objective 5- Key Project Deliverables for Research in Using and Expanding SLDS Data

- Project 5.1 Assessing STEM post-graduate student regional work retention.
 - Research Data
 - Research Final Report
- Project 5.2 Assessing need for inclusion of online education data into the SLDS
 - Research Data
 - Research Final Report
- Project 5.3 Assessing training and retention of early childhood workforce in Maryland
 - Research Data
 - Research Final Report

C. Timelines for Project Deliverables

The deliverable identified in Section B will be achieved through the joint effort of MSDE, MHEC, University of Maryland System (USM), and the Maryland DLLR. All project timelines were created in a more detailed format using Microsoft Project 2010 using a standard SDLC template that is required by the Maryland Department of Information Technology. Starting date for all projects was assumed to be June 1, 2012 to allow for slippage in notification of the project award, and/or startup time. Start and end points for tasks of a project are best-guesses estimated using hourly work effort estimations. Start and end dates for all projects, and associated tasks, are subject to change once detailed project requirements and specifications are developed. Lastly, not all detailed tasks are listed due to space constraints. Each project timeline presents only the key tasks, deliverables and estimated start/end dates. **Go to Next Page**

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

- This project will convert a required paper form submission process into an online system that collects private career school student data and distributes it to the P20W and PK12 SLDS systems.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Tue 4/22/14			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
Requirements for new module	Mon 6/18/12	Fri 10/19/12	Business Analyst 1	requirements	N
Procurement for consulting developers	Mon 10/22/12	Fri 2/22/13	Project Manager	TORFP	N
Design	Mon 7/16/12	Fri 10/5/12			N
Design database	Mon 10/22/12	Fri 11/30/12	Dev 1, Ops	database schema	N
Design application	Mon 12/3/12	Fri 4/5/13	Project Manager	software design doc	N
Procurement for new hardware	Mon 12/3/12	Fri 4/5/13	Project Manager	RFP	N
Build and Unit Test	Mon 4/8/13	Fri 3/7/14			N
Develop database	Mon 4/8/13	Fri 6/28/13	Data Modeler	physical schema	N
Develop user APEX add/edit screens	Mon 7/1/13	Fri 11/1/13	Dev 1	apex screens	N
Develop OBIEE dashboard	Mon 7/1/13	Fri 8/9/13	Dev 2	software development doc	N
Install hardware	Mon 4/8/13	Fri 9/20/13	Vendor	installation plan	N
Unit test UI	Mon 11/4/13	Fri 12/13/13	Stakeholders	checklist, test plan, bug reports	N
Build and test ETLs to SLDS	Mon 7/1/13	Fri 9/20/13	ETL 1	system development	N

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

- o This project will convert a required paper form submission process into an online system that collects private career school student data and distributes it to the P20W and PK12 SLDS systems.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
				doc, test plan, bug reports	
Develop ETLs to load legacy data	Mon 9/23/13	Fri 12/13/13	ETL 1	system development doc, test plan, bug reports	N
Convert existing data and test load process	Mon 12/16/13	Fri 1/24/14	ETL 1	load assessment	N
Develop user procedures	Mon 12/16/13	Fri 1/24/14	Business Analyst 1	End user procedures	N
Develop training	Mon 12/16/13	Fri 3/7/14	Trainer 1	End user training	N
Pilot Testing	Mon 3/10/14	Fri 4/4/14			N
UAT of user training	Mon 3/10/14	Fri 3/14/14	Users	survey	N
UAT conference room test of application and procedures	Mon 3/17/14	Fri 3/21/14	Ops	test plan, bug reports	N
Create portal with user documents	Mon 3/24/14	Fri 4/4/14	Dev 2	portal	N
Create help desk FAQs	Mon 3/24/14	Fri 4/4/14	Help Desk 1	FAQs	N
Signoff	Mon 3/24/14	Mon 3/24/14	Mgmt	signoff	N
Implementation	Tue 3/25/14	Tue 4/22/14			N
Migrate to production	Tue 3/25/14	Mon 4/7/14	Ops	checklist and signoff	N
Test install	Tue 4/8/14	Mon 4/14/14	Dev 1	test plan, bug reports	N
Webinar to inform end users	Tue 4/15/14	Tue 4/15/14	Coord1	user training, roll code into production	N
Final data conversion	Tue 4/15/14	Mon 4/21/14	ETL 1		N
Go Live Rollout and Monitoring	Tue 4/22/14	Tue 4/22/14	Coord1	Checklist, monitor use, user survey	N

Project 1.2 Implement juvenile services education data collection and add to PK12 SLDS					
○ Juvenile services currently use mostly manual processes to manage and track the education of juvenile offenders in 14 facilities. This project will implement a new standard in the student information system to add student data to the PK12 SLDS.					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Mon 12/2/13			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
Requirements for new module	Mon 6/18/12	Fri 7/13/12	Business Analyst 1	Requirements	N
Issue RFI	Mon 7/16/12	Fri 10/5/12	Business Analyst 1	RFI	N
Design	Mon 7/16/12	Fri 10/5/12			N
Perform map and gap on COTS packages	Mon 10/8/12	Fri 11/16/12	Business Analyst 1, Project Manager	Map and gap	
Final design specs for COTS purchase	Mon 7/16/12	Fri 8/24/12	Dev 1, Ops	Recommendations	N
Procurement for new modules	Mon 8/27/12	Fri 12/28/12	Project Manager	RFP	N
Procurement for new hardware	Mon 8/27/12	Fri 12/28/12	Project Manager	RFP	N
Install, Setup and Load	Mon 12/31/12	Fri 10/18/13			N
Install hardware	Mon 12/31/12	Fri 6/14/13	Vendor	installation plan	N
Install application	Mon 12/31/12	Fri 6/14/13	Vendor	checklist, test plan, bug reports	N
Setup and test application	Mon 6/17/13	Fri 9/6/13	Vendor	checklist, test plan, bug reports	N
Build and test ETLs to SLDS	Mon 6/17/13	Fri 9/6/13	ETL 1	system development doc	N
Convert existing data and test load	Mon 9/9/13	Fri 10/18/13	ETL 1	load assessment	N

Project 1.2 Implement juvenile services education data collection and add to PK12 SLDS					
○ Juvenile services currently use mostly manual processes to manage and track the education of juvenile offenders in 14 facilities. This project will implement a new standard in the student information system to add student data to the PK12 SLDS.					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Proc					
Develop procedure	Mon 9/9/13	Fri 10/18/13	Business Analyst 1	End user procedures	N
Develop training	Mon 9/9/13	Fri 10/18/13	Trainer 1	End user training	N
Pilot Testing	Mon 10/21/13	Fri 11/15/13			N
UAT of user training	Mon 10/21/13	Fri 10/25/13	Coord1	survey	N
UAT conference room test of application and procedures	Mon 10/28/13	Fri 11/1/13	Ops	test plan, bug reports	N
Create portal with user documents	Mon 11/4/13	Fri 11/15/13	Dev2	portal	N
Create help desk FAQs	Mon 11/4/13	Fri 11/15/13	Help Desk 1	FAQs	N
Signoff	Mon 11/4/13	Mon 11/4/13	Mgmt	signoff	N
Implementation	Tue 11/5/13	Mon 12/2/13			N
Migrate to production	Tue 11/5/13	Mon 11/18/13	Ops	checklist and signoff	N
Test install	Tue 11/19/13	Mon 11/25/13	Dev 1	test plan, bug reports	N
Webinar to inform end users	Tue 11/19/13	Tue 11/19/13	Coord 1	user training, roll code into production	N
Final data conversion	Tue 11/26/13	Mon 12/2/13	ETL 1		N
Go Live Rollout and Monitoring	Wed 11/20/13	Wed 11/20/13	Coord1	Checklist, monitor use, user survey	N

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

- o This project is to implement a GED management and tracking subsystem and pass the data to the PK12 SLDS for performance, outcome, and accountability tracking.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Fri 6/28/13			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
Requirements for new module	Mon 6/18/12	Fri 7/13/12	Business Analyst 1	Requirements	N
Design	Mon 7/16/12	Fri 12/28/12			N
Design specs from existing vendor	Mon 7/16/12	Fri 8/24/12	Dev1, Ops	Recommendations	N
Procurement for new module	Mon 8/27/12	Fri 12/28/12	Project Manager	RFP	N
Build & unit test	Mon 12/31/12	Fri 6/21/13			N
Vendor builds, tests new module	Mon 12/31/12	Fri 5/3/13	Ops	installation plan	N
Build and test ETLs to SLDS	Mon 5/6/13	Fri 6/14/13	ETL 1	system development doc	N
Unit test ETL loads to SLDS	Mon 6/17/13	Fri 6/21/13	Quality Analyst 1	test plan, bug reports	N
Integration Testing	Mon 5/6/13	Fri 6/7/13			N
Migrate code and system to test environment	Mon 5/6/13	Fri 5/17/13	Ops	test plan, bug reports	N
UAT test for new module	Mon 5/20/13	Fri 6/7/13	Dev1	test plan, bug reports	N
Create portal with user documents	Mon 5/20/13	Fri 5/31/13	Dev2		N
Create help desk FAQs	Mon 5/20/13	Fri 5/31/13	Help Desk 1	FAQs	N
Implementation	Mon 6/10/13	Fri 6/28/13			N
Migrate code and system to production environment	Mon 6/10/13	Fri 6/21/13	Ops	checklist and signoff	N

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

- This project is to implement a GED management and tracking subsystem and pass the data to the PK12 SLDS for performance, outcome, and accountability tracking.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Test install	Mon 6/24/13	Fri 6/28/13	Dev1	test plan, bug reports	N
Webinar to inform end users	Mon 6/24/13	Mon 6/24/13	Coord 1	user training, roll code into production	N
Go Live Rollout and Monitoring	Tue 6/25/13	Tue 6/25/13	Coord 1	Checklist, monitor use, user survey	N

Project 1.4 Implement adult correctional education data collection and add to PK12 SLDS					
<ul style="list-style-type: none"> o This project is to implement an adult correctional education data management system and pass the data the PK12 SLDS for performance, outcome, and accountability tracking. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Fri 6/28/13			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
Requirements for new module	Mon 6/18/12	Fri 7/13/12	Business Analyst 1	Requirements	N
Design	Mon 7/16/12	Fri 12/28/12			N
Design specs from existing vendor	Mon 7/16/12	Fri 8/24/12	Dev1,Ops	Recommendations	N
Procurement for new module	Mon 8/27/12	Fri 12/28/12	Project Manager	RFP	N
Build & unit test	Mon 12/31/12	Fri 6/21/13			N
Vendor builds, tests new module	Mon 12/31/12	Fri 5/3/13	Ops	installation plan	N
Build and test ETLs to SLDS	Mon 5/6/13	Fri 6/14/13	ETL 1	system development doc	N
Unit test ETL loads to SLDS	Mon 6/17/13	Fri 6/21/13	Quality Analyst 1	test plan, bug reports	N
Integration Testing	Mon 5/6/13	Fri 6/7/13			N
Migrate code and system to test environment	Mon 5/6/13	Fri 5/17/13	Ops	test plan, bug reports	N
UAT test for new module	Mon 5/20/13	Fri 6/7/13	Dev1	test plan, bug reports	N
Create portal with user documents	Mon 5/20/13	Fri 5/31/13	Dev2	portal	N
Create help desk FAQs	Mon 5/20/13	Fri 5/31/13	Help Desk 1	FAQs	N
Implementation	Mon 6/10/13	Fri 6/28/13			N
Migrate code and system to prod	Mon 6/10/13	Fri 6/21/13	Ops	checklist and signoff	N

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

- o This project is to implement an adult correctional education data management system and pass the data the PK12 SLDS for performance, outcome, and accountability tracking.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
environment					
Test install	Mon 6/24/13	Fri 6/28/13	Dev 1	test plan, bug reports	N
Webinar to inform end users	Mon 6/24/13	Mon 6/24/13	Coord 1	user training, roll code into production	N
Go Live Rollout and Monitoring	Tue 6/25/13	Tue 6/25/13	Coord 1	Checklist, monitor use, user survey	N

Project 2.1 Implement a master data management system					
<ul style="list-style-type: none"> o This project will purchase and implement a small master data management COTS system. It will be set up to translate multi-agency data to CEDS standard and used as the cross-walk table to link data for an individual across multiple agency systems with different identification methods. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Thu 5/30/13			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan communications plan, staff plan, budget	N
Requirements	Mon 8/13/12	Fri 9/7/12	Business Analyst 1	Requirements	N
Issue of Request for Information MDM systems	Mon 6/18/12	Fri 8/10/12	Business Analyst 1	RFI document	N
Design	Mon 8/13/12	Fri 1/25/13			N
Do proof-of-concept in dev environment	Mon 8/13/12	Fri 9/21/12	Dev1, Ops	Recommendations	N
Procurement for MDM	Mon 9/24/12	Fri 1/25/13	Project Manager	RFP	N
Build & unit	Mon 1/28/13	Fri 5/10/13			N
Install MDM software in dev	Mon 1/28/13	Fri 2/8/13	Ops	installation plan	N
Build and test ETLs for MDM software	Mon 2/11/13	Fri 3/22/13	ETL 1	system development doc	N
Load data to MDM	Mon 3/25/13	Fri 5/3/13	ETL 1		
Test MDM with data load	Mon 5/6/13	Fri 5/10/13	Quality Analyst 1	test plan, bug reports	N
Integration Testing	Mon 5/13/13	Tue 5/28/13			N
Migrate code and system to test environment	Mon 5/13/13	Tue 5/14/13	Ops	test plan, bug reports	N

Project 2.1 Implement a master data management system

- This project will purchase and implement a small master data management COTS system. It will be set up to translate multi-agency data to CEDS standard and used as the cross-walk table to link data for an individual across multiple agency systems with different identification methods.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Test MDM	Wed 5/15/13	Tue 5/21/13	Dev 1	test plan, bug reports	N
Create portal with User documents	Wed 5/15/13	Tue 5/28/13	Dev 2		N
Create help desk FAQs	Wed 5/15/13	Tue 5/28/13	Help Desk 1	FAQs	N
Implementation	Wed 5/22/13	Thu 5/30/13			N
Migrate code and System to prod environment	Wed 5/22/13	Tue 5/28/13	Ops	checklist and signoff	N
Test install	Wed 5/29/13	Thu 5/30/13	Dev 1	test plan, bug reports	N
Webinar to inform end users	Wed 5/29/13	Wed 5/29/13	Coord 1	user training, roll code into production	N
Go Live Rollout and Monitoring	Thu 5/30/13	Thu 5/30/13	Coord 1	Checklist, monitor use, user survey	N

Project 2.2 Implement a web service to USIS and probabilistic data matching subsystem					
<ul style="list-style-type: none"> This project will modify existing code to the Maryland unique student identifier system and combine it with a probabilistic data matching subsystem allowing: (1) post-secondary schools to submit student data and retrieve Maryland K12 student's unique identifier for addition to their systems; and (2) enable probabilistic matching on an individual's data submitted by multiple agencies. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Fri 7/26/13			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
Requirements	Mon 6/18/12	Fri 8/10/12	Business Analyst 1	Requirements	N
Issue of Request for Information on matching systems	Mon 8/13/12	Fri 10/5/12	Business Analyst 1	RFI document	N
Design	Mon 8/13/12	Fri 3/22/13			N
Do matching proof-of-concept in dev environment	Mon 10/8/12	Fri 11/16/12	Dev 1, Ops	Recommendations	N
Design web service for USIS	Mon 8/13/12	Fri 9/7/12	Dev 1	Software design doc	N
Procurement for matching software	Mon 11/19/12	Fri 3/22/13	Business Analyst 1	RFP	N
Build & unit test	Mon 9/10/12	Fri 6/14/13			N
Install matching software in dev	Mon 3/25/13	Fri 4/5/13	Ops	installation plan	N
Build and test ETLs for matching software	Mon 4/8/13	Fri 5/17/13	ETL 1	system development doc	N
Unit test matching software	Mon 5/20/13	Fri 6/14/13	Quality Analyst 1	test plan, bug reports	N
Program USIS web service	Mon 9/10/12	Fri 10/19/12	Dev 1	system development doc	N
UAT USIS web service	Mon 10/22/12	Fri 11/16/12	End user	test plan, bug reports	N

Project 2.2 Implement a web service to USIS and probabilistic data matching subsystem					
<ul style="list-style-type: none"> This project will modify existing code to the Maryland unique student identifier system and combine it with a probabilistic data matching subsystem allowing: (1) post-secondary schools to submit student data and retrieve Maryland K12 student's unique identifier for addition to their systems; and (2) enable probabilistic matching on an individual's data submitted by multiple agencies. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Integration Testing	Mon 6/17/13	Fri 7/26/13			N
Migrate code and system to test environment	Mon 6/17/13	Fri 6/21/13	Ops	test plan, bug reports	N
Test matching install	Mon 6/24/13	Fri 6/28/13	Dev 1	test plan, bug reports	N
Test USIS web services installed	Mon 7/1/13	Fri 7/5/13	Dev 1	recommendations	N
Run USIS UAT with select colleges	Mon 7/8/13	Fri 7/26/13	Coord 1	test plan, bug reports	N
Create portal with user documents	Mon 6/24/13	Fri 7/5/13	Dev 2		N
Create help desk FAQs	Mon 6/24/13	Fri 7/5/13	Help Desk1	FAQs	N
Implementation	Mon 7/8/13	Fri 7/19/13			N
Migrate code and system to prod environment	Mon 7/8/13	Fri 7/12/13	Ops	checklist and signoff	N
Test install	Mon 7/15/13	Fri 7/19/13	Dev 1	test plan, bug reports	N
Webinar to inform end users	Mon 7/15/13	Mon 7/15/13	Coord 1	user training, roll code into production	N
Go Live Rollout and Monitoring	Tue 7/16/13	Tue 7/16/13	Coord 1	Checklist, monitor use, user survey	N

Project 3.1 Develop PK12-P20W CTE K12-CC curriculum alignment dashboard					
○ This dashboard consolidates data to look at successful transition of K12 CTE students to postsecondary trade schools, community colleges, and 4-year colleges in order to assess remediation, successful graduation and transition to workforce outcomes.					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 6/4/12	Mon 11/19/12			N
Initiation	Mon 6/4/12	Fri 6/8/12	Project Manager	proposal, charter, scope	N
Planning	Mon 6/11/12	Fri 6/15/12	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
User Needs Discovery	Mon 6/18/12	Fri 7/6/12	Business Analyst 1, Dev 1	concept dashboard & schema	N
Requirements	Mon 7/9/12	Fri 7/20/12	Business Analyst 1	requirements	N
Database design and build	Mon 7/23/12	Fri 8/3/12	Data Modeler	final schema	N
Dashboard design	Mon 8/6/12	Fri 8/17/12	Dev 1	software design doc, security plan	N
Build & unit test dashboard & analytics	Mon 8/20/12	Fri 9/14/12	Dev 1	system development doc	N
Build & unit test ETLs	Mon 9/17/12	Fri 10/26/12	ETL 1	ETL code	N
UAT Testing	Mon 10/29/12	Fri 11/2/12	End user	test plan, bug reports	N
Training & Help Desk	Mon 11/5/12	Fri 11/9/12	Help Desk1, Captivate1	multimedia module, Help Desk FAQs	N
Implementation	Mon 11/12/12	Fri 11/16/12	Ops	user training, roll code into production	N
Rollout	Mon 11/19/12	Mon 11/19/12	Trainer 1	Checklist, monitor use, user survey	N

Project 3.2 Develop PK12-P20W early college access outcome dashboard					
<ul style="list-style-type: none"> ○ This dashboard tracks K12 students that take local college courses while in high school and assesses the types of courses taken and the success of transition rates to college of early college attendees vs. K12 non-early attendees. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Tue 1/1/13	Tue 6/18/13			N
Initiation	Tue 1/1/13	Mon 1/7/13	Project Manager	proposal, charter, scope	N
Planning	Tue 1/8/13	Mon 1/14/13	Project Manager	strategy, project plan, risk plan, change mgmt plan, communications plan, staff plan, budget	N
User Needs Discovery	Tue 1/15/13	Mon 2/4/13	Business Analyst 1, Dev1	concept dashboard & schema	N
Requirements	Tue 2/5/13	Mon 2/18/13	Business Analyst1	Requirements	N
Database design and build	Tue 2/19/13	Mon 3/4/13	Data Modeler	final schema	N
Dashboard design	Tue 3/5/13	Mon 3/18/13	Dev 1	software design doc, security plan	N
Build & unit test dashboard & analytics	Tue 3/19/13	Mon 4/15/13	Dev 1	system development doc	N
Build and unit test ETLs	Tue 4/16/13	Mon 5/27/13	ETL 1	ETL code	N
UAT Testing	Tue 5/28/13	Mon 6/3/13	End user	test plan, bug reports	N
Training & Help Desk	Tue 6/4/13	Mon 6/10/13	Help Desk1, Captivate1	multimedia module, HD FAQs	N
Implementation	Tue 6/11/13	Mon 6/17/13	Ops	user training, roll code into production	N
Rollout	Tue 6/18/13	Tue 6/18/13	Trainer 1	Checklist, monitor use, user survey	N

Project 3.3 Develop College-to-Work CTE program outcome dashboard					
○ This dashboard reports on key factors that promote successful transition for K12 CTE students directly to the workforce.					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Wed 6/19/13	Wed 12/4/13			N
Initiation	Wed 6/19/13	Tue 6/25/13	Project Manager	proposal, charter, scope	N
Planning	Wed 6/26/13	Tue 7/2/13	Project Manager	strategy, project plan, risk plan, change mgmt plan communications plan, staff plan, budget	N
User Needs Discovery	Wed 7/3/13	Tue 7/23/13	Business Analyst 1, Dev1	concept dashboard & schema	N
Requirements	Wed 7/24/13	Tue 8/6/13	Business Analyst 1	Requirements	N
Database design and build	Wed 8/7/13	Tue 8/20/13	Data Modeler	final schema	N
Dashboard design	Wed 8/21/13	Tue 9/3/13	Dev 1	software design doc, security plan	N
Build & unit test dashboard & analytics	Wed 9/4/13	Tue 10/1/13	Dev 1	system development doc	N
Build and unit test ETLs	Wed 10/2/13	Tue 11/12/13	ETL 1	ETL code	N
UAT Testing	Wed 11/13/13	Tue 11/19/13	End user	test plan, bug reports	N
Training & Help Desk	Wed 11/20/13	Tue 11/26/13	Help Desk1, Captivate1	multimedia module, Help Desk FAQs	N
Implementation	Wed 11/27/13	Tue 12/3/13	Ops	user training, roll code into production	N
Rollout	Wed 12/4/13	Wed 12/4/13	Trainer 1	Checklist, monitor use, user survey	N

Project 3.4 Develop P20W SLDS Education to Work Life-Span summary dashboard					
<ul style="list-style-type: none"> ○ This dashboard summarizes key metrics that describe career and college preparation, readiness, and transitions from K12 to work, from K12 to higher education, and from P20 students into the workforce. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Thu 12/5/13	Thu 5/22/14			N
Initiation	Thu 12/5/13	Wed 12/11/13	Project Manager	proposal, charter, scope	N
Planning	Thu 12/12/13	Wed 12/18/13	Project Manager	strategy, project plan, risk plan, change mgmt plan communications plan, staff plan, budget	N
User Needs Discovery	Thu 12/19/13	Wed 1/8/14	Business Analyst 1, Dev1	concept dashboard & schema	N
Requirements	Thu 1/9/14	Wed 1/22/14	Business Analyst 1	Requirements	N
Database design and build	Thu 1/23/14	Wed 2/5/14	Data Modeler	final schema	N
Dashboard design	Thu 2/6/14	Wed 2/19/14	Dev 1	software design doc, security plan	N
Build & unit test dashboard & analytics	Thu 2/20/14	Wed 3/19/14	Dev 1	system development doc	N
Build and unit test ETLs	Thu 3/20/14	Wed 4/30/14	ETL 1	ETL code	N
UAT Testing	Thu 5/1/14	Wed 5/7/14	End user	test plan, bug reports	N
Training & Help Desk	Thu 5/8/14	Wed 5/14/14	Help Desk1, Captivate1	multimedia module, HD FAQs	N
Implementation	Thu 5/15/14	Wed 5/21/14	Ops	user training, roll code into production	N
Rollout	Thu 5/22/14	Thu 5/22/14	Trainer 1	Checklist, monitor use, user survey	N

Project 4.1 Implement SLDS Research Training Academy

- This project runs as a graduate student seminar for an academic semester and is available for credit to advanced graduate students. The seminar doubles as an internship on the SLDS system staffs. Weekly longitudinal research training lectures are supplemented by data fellows performing a significant SLDS research project under the guidance of an academic mentor.

Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Tue 5/29/12	Thu 4/18/13			N
Arrange for graduate credit	Tue 5/29/12	Mon 6/25/12	B.Passmore	USM approval	N
Arrange for mentors	Tue 6/26/12	Mon 8/6/12	B.Passmore	mentor list	N
Define Curriculum	Tue 6/26/12	Mon 7/23/12	B.Passmore	curriculum	N
Arrange for advertising in course catalogue	Tue 6/26/12	Mon 7/2/12	B.Passmore	catalogue write-up	N
Interview candidates	Tue 6/26/12	Mon 7/23/12	A.Lagdameo, B.Passmore	interview summaries	N
Verify enrollment roster	Tue 7/24/12	Tue 7/24/12	Lecturer	Enrollment Roster	N
Meetings to review fellows schedule; weekly seminars & mentor meetings	Thu 8/16/12	Wed 4/24/13	Mentors	Schedule, seminars	N
Define research and draft proposals prepared	Wed 9/17/12	Tue 11/13/12	Fellows	proposals	N
Research proposal approvals	Wed 11/14/12	Tue 11/20/12	Mentors	signoffs	N
Design research	Wed 11/21/12	Tue 11/27/12	Fellows	draft design	N
Collect data	Wed 11/28/12	Tue 1/8/13	Fellows	raw data	N
Analyze data	Wed 1/9/13	Tue 2/19/13	Fellows	data analysis	N
Draft paper	Wed 2/20/13	Tue 3/5/13	Fellows	draft write up	N
Review and revision of research paper	Wed 3/6/13	Tue 3/19/13	Fellows, Mentors	revised write up	N
Final Project Papers	Wed 3/20/13	Tue 4/16/13	Fellows	final research paper	N
Seminar Grades	Wed 4/17/13	Wed 4/17/13	Lecturer	grade roster	N
Seminar satisfaction survey	Thu 4/18/13	Thu 4/18/13	Fellows	fellow surveys	N

Project 4.2 Implement SLDS Legislators Training Academy					
<ul style="list-style-type: none"> ○ This project provides Maryland State legislators a one day hands-on training on how to use and perform research using the SLDS systems. The training will also make available SLDS support services, provide a help desk, and provide information on how to use the online data request process to request from the SLDS operations team. 					
Task Name	Start	Finish	Resource Names	Deliverables	Overlap with other Grants
Project Summary	Mon 6/3/13	Mon 12/1/14			N
Prepare proposal	Mon 6/3/13	Fri 6/14/13	A.Lagdameo	proposal	N
Presentation and approvals	Mon 6/17/13	Fri 6/28/13	A.Lagdameo	signoffs	N
Create curriculum	Mon 7/1/13	Fri 8/9/13	Trainer 1	Curriculum	N
Design training case scenarios	Mon 8/12/13	Fri 9/20/13	Trainer 1, MSDE	training case scenarios	N
Develop curriculum and multimedia	Mon 9/23/13	Fri 12/13/13	Trainer 1, Captivate 1	draft training materials	N
Test draft training materials	Mon 12/16/13	Fri 12/20/13	Trainer 1	results/revise material	N
Schedule training area	Mon 7/1/13	Fri 7/5/13	A.Lagdameo	tablets, reservations	N
Send invitations	Mon 7/1/13	Fri 7/5/13	A.Lagdameo	invitations	N
Arrange for refreshments	Mon 7/1/13	Mon 7/1/13	A.Lagdameo	refreshments	N
Run training class with issued tablets	Tue 1/7/14	Tue 1/7/14	OOG	tablets	N
Seminar satisfaction survey	Tue 1/7/14	Tue 1/7/14	Trainer 1	survey	N
Track use of systems by legislative staff	Mon 4/28/14	Mon 4/28/14	Ops	tracking report	N
Post 6 month impact follow-up	Mon 12/1/14	Mon 12/1/14	A.Lagdameo	survey	N

Project 5.1 Assessing STEM post-graduate student regional work retention					
<ul style="list-style-type: none"> ○ This is a three-year research project that develops requirements for a University System of Maryland data collection that tracks post-graduate STEM job acceptance, and provides dashboards that map and investigate geographical migration patterns in the region looking at issues associated with STEM state “brain-gain” or “brain-drain” patterns. This research project uses existing SLDS data and defines a new data collection from USM graduate STEM programs. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project Summary	Mon 5/7/12	Fri 3/20/15			N
Project administration	Mon 5/7/12	Fri 3/20/15	USM Project Manger	concept, schedule	N
Budget management	Mon 5/7/12	Fri 3/20/15	USM Project Manger	budget	N
Research proposal	Mon 9/10/12	Fri 10/19/12	Graduate Student 3	proposal	N
Research design	Thu 10/25/12	Wed 1/16/13	Graduate Student 3	draft design	N
Research review and approvals	Thu 1/17/13	Wed 4/10/13	Graduate Student 3	signoffs	N
Research logistics	Thu 4/11/13	Wed 7/3/13	Graduate Student 3	research schedule	N
Collect data	Thu 7/4/13	Wed 4/9/14	Graduate Student 3	raw data	N
Analyze data	Thu 4/10/14	Wed 7/2/14	Graduate Student 3	data analysis	N
Prepare draft of research	Thu 7/3/14	Wed 9/24/14	Graduate Student 3	draft report	N
Peer review	Thu 9/25/14	Wed 11/5/14	Mentor 3	revise draft	N
Final report	Thu 11/6/14	Wed 3/11/15	Graduate Student 3	final report	N

Project 5.2 Assessing need for inclusion of online education data into the SLDS					
<ul style="list-style-type: none"> ○ This is a two-year research project that investigates the accelerated rate of adoption of online education and associated degree granting throughout for post-secondary education world. The research explores the impacts and issues of including and excluding online issued degrees and credits granted by online institutions. 					
Task Name	Start	Finish	Resource Names	Deliverable	Overlap with other Grants
Project summary	Mon 5/7/12	Mon 4/7/14			N
Project administration	Mon 5/7/12	Fri 4/4/14	USM Project Manager	concept, schedule	N
Budget management	Mon 5/7/12	Fri 4/4/14	USM Project Manager	budget	N
Research proposal	Mon 9/10/12	Fri 10/19/12	Graduate Student 2	proposal	N
Research Design	Thu 12/6/12	Wed 1/16/13	Graduate Student 2	draft design	N
Research review and approvals	Thu 1/17/13	Wed 2/27/13	Graduate Student 2	signoffs	N
Research logistics	Thu 2/28/13	Wed 4/10/13	Graduate Student 2	research schedule	N
Collect data	Thu 4/11/13	Wed 8/28/13	Graduate Student 2	raw data	N
Analyze data	Thu 8/29/13	Wed 11/20/13	Graduate Student 2	data analysis	N
Prepare draft of research	Thu 11/21/13	Wed 1/1/14	Graduate Student 2	draft report	N
Peer review	Thu 1/2/14	Mon 1/13/14	Mentor 2	revise draft	N
Final report	Tue 1/14/14	Mon 4/7/14	Graduate Student 2	final report	N

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

- This is a two-year research project that investigates the training and retention of early childhood professionals using SLDS and workforce data, and discusses trends and challenges facing Maryland's early childhood in meeting current and future public service demand. This project uses existing SLDS and labor workforce data and will supplement it with a new data collection from current and past providers.

Task Name	Start	Finish	Resource Names	Deliverables	Overlap with other Grants
Project Summary	Mon 5/7/12	Thu 5/7/15			N
Project administration	Thu 5/7/12	Thu 5/7/15	USM Project Manager	concept, schedule	N
Budget management	Mon 5/7/12	Thu 5/7/15	USM Project Manager	budget	N
Research proposal	Mon 9/10/12	Fri 11/30/12	Graduate Student 1	proposal	N
Research Design	Mon 12/3/12	Fri 2/22/13	Graduate Student 1	draft design	N
Research review and approvals	Mon 2/25/13	Fri 4/5/13	Graduate Student 1	signoffs	N
Research logistics	Mon 4/8/13	Fri 6/28/13	Graduate Student 1	research schedule	N
Collect data	Mon 7/1/13	Fri 4/4/14	Graduate Student 1	raw data	N
Analyze data	Mon 4/7/14	Fri 8/8/14	Graduate Student 1	data analysis	N
Prepare draft of research	Mon 8/11/14	Fri 10/31/14	Graduate Student 1	draft report	N
Peer review	Mon 11/3/14	Fri 12/12/14	Mentor1	revise draft	N
Final report	Mon 12/15/14	Fri 3/6/15	Graduate Student 1	Final report	N

D. Project Governance and Project Management

D.1 Overview

Project management for the new grant will be provided by existing SLDS IT development governance organization and procedures. As needed, additional project staff and project managers will be added to the MSDE SLDS team (MSDE-PK12) which currently consists of about 40 technical staff and is responsible for the operation of the PK12 SLDS, execution of the 2009 SLDS grant, and development of 15 Race to the Top information system projects. See Appendix 7 for an overview of the MSDE-PK12 governance structure, and Appendix 8 for the MSDE-PK12 SLDS organization chart. The Maryland State Longitudinal Data Center's Inter-Agency Technical Work Group (ITWG), along with MSDE-PK12 SLDS project team, oversees the development and operation of the P20W data warehouse. Appendix 5 shows the Center's governance organization, while Appendix 9 shows the ITWG organization. The existing PK12 and P20W governance process, governance teams, project management teams, and inter-agency collaboration teams will provide the necessary development, staff, budget, procurement, system operations, risk, data governance, security governance, and stakeholder oversight management required for the grant's execution and quality assurance.

D.2 Project Responsibilities, Stakeholders and Inter-Agency Funds Management

Table D.2-1 identifies the organizational project responsibilities along with the method of coordination between agency partners, how agency partners formalize their working relationships and will share tasks, the stakeholders for each project, and the anticipated sustainable funding. Most of the projects proposed for the grant are agency internal development efforts where the project owners are the stakeholders.

Overall, authority and responsibility for the grant and projects resides with the MSDE SLDS management team. Abbreviations used in the table include; MOU = Memorandum of Understanding; OOG= Office of the Governor, MSDE=Maryland State Department of Education; MHEC=Maryland Higher Education Commission; DLLR=Maryland Department of Labor, Licensing and Regulation; USM=University System of Maryland.

Table D.2-1 Project Owners, Partners, Agreements, Stakeholders and Sustainable Funding					
Agency/Agencies & Project Owner	Inter- agency Partners	Working Agreemen ts	Shared Agency Tasks	Stakeholders & Approach for Inclusion	Sustainabl e Funding Approach
Project 1.1 Improve private career school data collection and add data to P20W					
MHEC P. Jackson CIO	MSDE	Existing MOU	Joint ETL development	Private career schools engaged via Focus groups & Webinars	Agency budgets
Project 1.2 Improve juvenile services education data collection and add data to PK12 SLDS					
MSDE CTE Division P. Mikos Program Director	DPSCS	Existing MOU	Joint ETL development, implementation, training, and rollout	Teachers & Administrators Engaged via webinars & onsite training	Agency budgets
Project 1.3 Improve adult GED data collection and add data to PK12 SLDS					
DLLR S. Pillai Program Director	MSDE	Existing MOU	Joint ETL development	NA – internal project	Agency budgets
Project 1.4 Improve adult correctional education data collection and add to PK12 SLDS					
DLLR S. Pillai Program Director	MSDE	Existing MOU	Joint ETL development	NA – internal project	Agency budgets
Project 2.1 Implementation of a master data management system					
MSDE J. Johnson Branch Chief	NA – internal project	NA – internal project	NA – internal project	NA – internal project	Agency budgets
Project 2.2 Implementation of a probabilistic directory data matching subsystem					
MSDE J. Johnson Branch Chief	NA – internal project	NA – internal project	NA – internal project	NA – internal project	Agency budgets
Project 3.1 Develop PK12-P20W CTE curriculum alignment and program dashboard					
MSDE P. Mikos Program Director	MHEC DLLR	Existing MOUs	Joint ETL development	NA – internal project	Agency budgets
Project 3.2 Develop PK12-P20W early college access outcome dashboard					
MSDE P. Mikos Program Director	MHEC DLLR	Existing MOUs	Joint ETL development	NA – internal project	Agency budgets
Project 3.3 Develop College-to-Work CTE program outcome dashboard					

Table D.2-1 Project Owners, Partners, Agreements, Stakeholders and Sustainable Funding					
Agency/Agencies & Project Owner	Inter-agency Partners	Working Agreements	Shared Agency Tasks	Stakeholders & Approach for Inclusion	Sustainable Funding Approach
MSDE P. Mikos Program Director	MHEC DLLR	Existing MOUs	Joint ETL development	NA – internal project	Agency budgets
Project 3.4 Develop P20W SLDS Education Preparation and Workforce dashboard					
MSDE P. Mikos Program Director	MHEC DLLR	Existing MOUs	Joint ETL development	NA – internal project	Agency budgets
Project 4.1 SLDS Research Training Academy					
OOG A. Lagdameo	USM MSDE	NA	Design development delivery	Selected Research Fellows	Agency Budgets
Project 4.2 SLDS Legislators Training Academy					
OOG A. Lagdameo	OOG USM	NA	Design development delivery	State Legislators	Agency Budgets
Project 5.1 P20W SLDS Research - STEM post-graduate student regional work retention					
USM B. Passmore	MSDE DLLR	Existing MOU	Design development delivery	Agencies Governor Office	Agency Budgets
Project 5.2 Assessing the need for inclusion of online education data into the SLDS					
USM B. Passmore	MSDE	Existing MOU	Design development delivery	Agencies Governor Office	Agency Budgets
Project 5.3 P20W SLDS Research - Analyze training and retention of early childhood workforce in Maryland					
USM B. Passmore	MSDE	Existing MOU	Design development delivery	Agencies Governor Office	Agency Budgets

D.3 Project and Development Management

All projects are managed with a combination of PMBOK and the state's SDLC methodology that is overseen by the Maryland Department of Information Technology SLDS methodology. See <http://doit.maryland.gov/SDLC/Pages/SDLCHome.aspx> for the process and deliverables required for state information technology projects. All projects are managed throughout the SLDS project management (PM) portal. The PM portal includes process and deliverable information including but not limited to: development team and stakeholder organizational structures, charters, project plans, project progress reports, budgets, procurements, development documents, testing documents, and project risk logs. The portal is the document repository for

the required deliverables for each project. See Appendix 10 for images of the project management portal.

The project management protocol that will be used to track project progress and ensure deliverables in Section B and timeline milestones outline in Section C are met is as follows: (1) all project managers will maintain a task-level Microsoft 2010 project plan to the task/hour level with associated costs and track weekly percent of task completion; (2) project managers will review weekly, or as needed, with the PK12/P20W PMO project status and identify delays and barriers for the project to execute task re-sequencing, task reconfiguration, workarounds, or issues to go the Project Executive Sponsor and Steering Committee for resolution; (3) weekly status updates to Executive Sponsor and Executive Project Manager; and (4) bi-weekly updates with the Executive Steering Committee for issue resolutions.

Existing MSDE data governance and security governance teams will use current processes and standards to ensure grant's project design continuity with existing system and projects.

D.4 Fiscal Controls

All MSDE project budgets are overseen by the agency's CFO and the Accounting Office. Budgets, encumbrances, invoices, and payments are entered by the project's financial liaison into the State's FMIS accounting system. Project managers maintain project level and budget category forecast and expense Excel worksheets that are reconciled to monthly FMIS budget and expenditure reports to ensure the proper coding of expenditures and payments, and ensure that expenditures do not exceed project budgets categories amounts defined for each project's budget in the grant.

D.5 Governance Reporting and Stakeholder Communications

Project governance reporting consists of: (1) weekly status reports; (2) weekly project status updates to the project Executive Sponsor and Executive Project Manager; (3) Steering Committee reviews every two weeks; (4) weekly coordination meetings with the DPSCS operations data center; (5) weekly project update meetings with the Inter-agency Technical project management team; (6) monthly updates to the Maryland Longitudinal Data Center's Executive Advisory Board; (7) weekly or monthly stakeholder collaboration teams via webinars, (8) monthly updates to USDE grant managers; and (9) yearly project audits and reports to the Maryland Legislative Audit Bureau.

The project portal will be used as means of communication with grant, project, and stakeholder groups. Various status reports will be distributed via email, and weekly/monthly face-to-face meetings are used for planning, coordination, and work update reporting. Webinars will be used extensively on a weekly basis with stakeholders and inter-agency teams that are geographically dispersed. The above listed communication methods are currently used extensively for the PK12 SLDS 2009 grant and with the RTTT grant.

D.6 Letters of Support

Appendix B contains letters of support showing the anticipated participation by partner agencies. Letters have been submitted by: 1) Office of the Governor; 2) MHEC; 3) DLLR; 4) USM; and 5) St. Mary's College.

E. Staffing

E.1 Overview

Project owners are listed in Table D.2 of Section D that discusses project governance. This section identifies the staffing plan for the proposed projects and provides supporting material for the application's Budget Information Non-Construction Programs (ED 524) document. All resumes of proposed project participants are included in Appendix C. A summary table identifies each team member's organizational affiliations. Section E.2 lists all the positions each partner agency needs for the associated project along with a FTE count by project. Section E.3 provides definitions for the various roles proposed. Grant committee members that wrote the grant application will act as the grant's advisor team. Responsibility for managing the grant will be with MSDE. All collaborating agency grant team members are experienced with education or workforce data and computer systems.

E.2 Project Management Team and Agency Staff Supporting Grant

While MSDE will provide an overall project grant manager to oversee the grant and coordinate interagency participation and projects, an interagency management team will ensure coordination and completion of all partner agency projects. Table E.2-1 summarizes the project management team identified in Table D.2.

The consultant grant manager will be supported by the existing development technical teams to ensure that all new software development fits the existing PK12 and P20W enterprise architecture and uses existing enterprise tools and technologies. Full time agency staff that will be participating on the project teams is listed in Table E.2-1.

Table E.2-1 Grant Project Management Team				
Name	Agency/Division	Projects Managed	Agency Title	Role on Grant
Leslie Wilson	MSDE/DAADS	All	State Assistant Superintendent	Executive Sponsor
Janice Johnson	MSDE/DAADS	2.1, 2.2	Branch Chief	Executive project manager
Rob London	MSDE/DAADS	All	PK12/P20W/RTTT PMO	Project oversight
Chandra Haislet	MSDE/DAADS	All	P20W Inter-Agency Team Coordinator Manager	Inter agency project manager

Name	Agency/Division	Projects Managed	Agency Title	Role on Grant
P. Mikos	MSDE/CTE	1.2, 3.1, 3.2, 3.3, 3.4	Program Director	Project director
Ben Passmore	USM	5.1, 5.2, 5.3	Assistant Vice Chancellor	Project director
A. Lagdameo	Office of Governor	4.1, 4.2	Senior Analyst	Project director
Parris Jackson	MHEC	1.1	Interim CIO	Project director
S. Pillai	DLLR	1.3, 1.4	Program Director	Project director

Name	Agency/Division	Projects Managed	Agency Title	Role on Grant
Mike Pautz	MSDE/DAADS		Manager	Data Quality Control
Mark Allen	MSDE/DAADS		Operation Lead	Data Center, Server and Database Support
Zac Mangold	MSDE/DAADS		Collaboration, Help Desk, and Rollout Lead	Stakeholder Collaboration Teams, Training, and Rollouts
Matt Koerner	MSDE/CTE		CTE Program and Information Specialist	CTE Subject Matter Expert
Michael Beck	MSDE/CTE		CTE Program Analyst	CTE Project Analyst
William Nottage	MSDE/CTE		CTE Specialist	CTE Project Analyst
Maureen McAfee	JSE		JSE Information Technology Coordinator	Subject Matter Expert
Phil Koshkin	MSDE/Early Childhood	5.3	Chief ECH Division, Research and Evaluation	Subject Matter Expert
Jena Smith	MSDE/Early Childhood		Training Approval Coordinator	ECH Subject Matter Expert
Liz Kelly	MSDE/Early Childhood		Director Office of Child Care	ECH Subject Matter Expert
Robin Brayton	MHEC	5.1, 5.2, 5.3	Data Processing Supervisor	Technical Coordinator

Name	Agency/Division	Projects Managed	Agency Title	Role on Grant
Jon Enriquez	MHEC	4.1, 4.2	Associate Director, Office of Research and Policy Analysis	Subject Matter Expert
David Stevens	DLLR	1.1	Director	Subject Matter Expert
Treva Stack	DLLR	1.3, 1.4	Researcher and Statistician	Technical Coordinator

E.3. Staffing Plan by Project

Table E.3-1 provides summary information about the staffing levels that must be hired for the proposed grant projects. As noted in the previous section, all project owners and directors are full time agency employees. Many of the roles on the project are staffed by employees and represent shared infrastructure resources whose costs are already covered, and therefore are excluded from this cost estimate staffing plan. Full staffing plans have been developed for each project using Microsoft Project with staffing resourced at the task level. Space limits prevent granular project plan level information included in the grant application, but is available upon request. The excluded staffing roles include: Executive Sponsor, Executive Project Manager, PMO, Stakeholder Coordinator, Data Modeler, DBA/Sys Admin, Network Specialist, UAT Stakeholder Testers, and help desk staff.

The majority of the technical development staffing plan calls for either staff augmentation using consultants, or a vendor's COTS installation staff to perform the work as part of fixed bid project. Staffing that is provided by a vendor as part of a fixed bid software purchase and installation is shown in the table below as "vendor". In the cases where partial FTE are shown for similar project a full or ½ FTE will be hired. Maryland State procurement contracts are calculated using 2080 work hours for a 12 month work contract period and 1040 hours for a 6 month work contract period.

Project	Project title	Year 1 Contractual FTEs	Year 2 Contractual FTEs	Year 3 Contractual FTEs
Admin	Grant Project Manager	1 FTE	1 FTE	.5 FTE

**Table E.3-1
Contractual Staff Estimated as FTEs by Project Year**

Project	Project title	Year 1 Contractual FTEs	Year 2 Contractual FTEs	Year 3 Contractual FTEs
Project 1.1	Private Career School (PCS) - New Data Stream Project and addition to K12 and P20W SLDS	.5 FTE Business Analyst	.75 FTE APEX Developer .25 ETL Developer	
Project 1.2	Juvenile Services Education Program and addition to K12 SLDS	.5 BA Vendor	Vendor .25 FTE ETL Developer	
Project 1.3	GED tracking and addition to K12 SLDS	Vendor .25 FTE ETL Developer		
Project 1.4	Upgrade of adult correction education data and addition to P20W LDS	Vendor .25 FTE ETL Developer		
Project 2.1	MDM Implementation	Vendor		
Project 2.2	Matching Subsystem & web service	Vendor		
Project 3.1	K12-P20 CTE Community College Remediation and Transition dashboard project	.25 FTE ETL programmer and .25 FTE OBIEE Developer		
Project 3.2	Early College Access Outcome data collection and dashboard	.25 FTE ETL programmer and .25 FTE OBIEE Developer		
Project 3.3	Develop College-to-Work CTE program outcome dashboard	.	.25 FTE ETL programmer and .25 FTE OBIEE Developer	
Project 3.4	P20W SLDS Education Preparation and Workforce dashboard	.	.25 FTE ETL programmer and .25 FTE OBIEE	

Table E.3-1 Contractual Staff Estimated as FTEs by Project Year				
Project	Project title	Year 1 Contractual FTEs	Year 2 Contractual FTEs	Year 3 Contractual FTEs
			Developer	
Project 4.1	Maryland Data Fellows Academy		Data Fellows	Data Fellows
Project 4.2	Legislators LDS Training Camp		.5 FTE Trainer	
Project 5.1	SLDS to analyze STEM graduate students post graduation regional work retention	.5 FTE graduate researcher	.5 FTE graduate researcher	
Project 5.2	Need for Distance Learning data in the SLDS	.5 FTE graduate researcher	.5 FTE graduate researcher	
Project 5.3	Using the SLDS to analyze Labor Supply, Preparation and retention of the ECH workforce	.5 FTE graduate researcher	.5 FTE graduate researcher	

E.4 Definition of Project Roles

This section provides a general, high-level description of each of the project roles for staff that will be participating on the execution of the projects. General role description of project manager or governance related roles can be found on the Maryland Department of Information Technologies website at

<http://doit.maryland.gov/SDLC/Documents/SDLC%20Roles%20and%20Responsibilities.pdf>.

Detailed functional role descriptions for each project will be defined at the time a project is initiated as part of the SLDS initiation and planning process.

Role Title	Role Description
Executive Sponsor	Senior executive responsible for grant and overall development program
Executive Project Manager	Senior operations executive responsible for entire grant management and execution of the development, training, and rollout plans.
PMO	Oversees all project managers, sets project management standards, reports on overall progress of the projects to executive committees
Project Manager	Responsible for daily execution of the project plan, managing staff, budget management, risk management

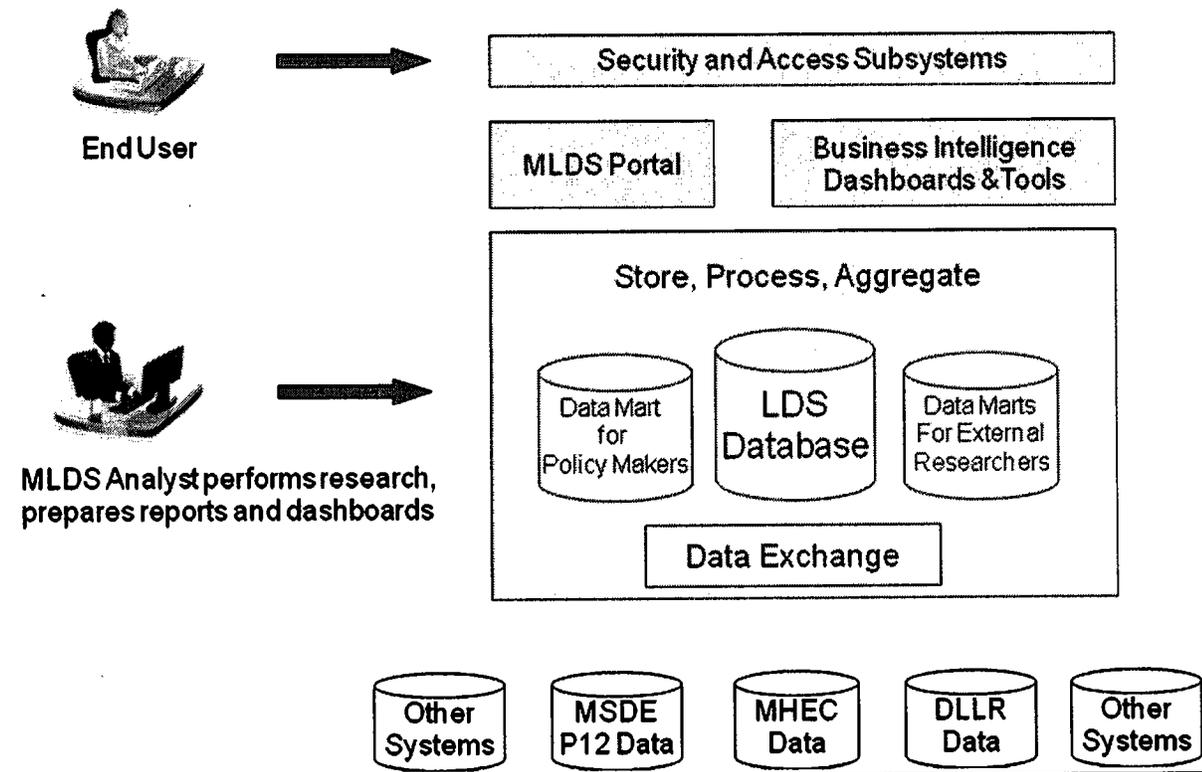
Role Title	Role Description
Stakeholder Coordinator	Subject matter expert that works with end-user stakeholders to coordinate design reviews, UAT testing, and project rollouts.
Business Analyst	Technical staff that translates end-user needs into system design requirements and specifications.
Data Modeler	Technical staff responsible for database logical and physical schema design and development
DBA/Sys Admin	Technical staff that manages an applications database and operating system for the servers that the application and database are running on.
Network Specialist	Technical staff that implements, manages and monitor the network infrastructure
Applications Mgr	Application subject matter expert that can manage the application setup parameters and provide advice to users on how to use an application.
BI Programmer	Programmer developing Oracle OBIEE data models, analytics, and dashboards.
Portal/HTML/Java Programmer	3GL/4GL programmer developing portals, users add/edit screens, or batch code.
ETL Programmer	Developer that programs data transfer and code translations programs between software applications.
COTS Implementation Consultant	COTS vendor consultant responsible for defining and entering COTS application setups.
Multimedia Developer	Developer that plans, creates, and tests multimedia modules in Captivate or MSDE LMS to support a program or software module.
UAT Tester	Team of end-users that test and certify a program or software application is ready to rollout.
Trainer	Develops end-user program or system training plan, coordinates training development resources, oversees user testing of training; works with Rollout Coordinator to rollout training program.
Help Desk	Provides end-user support and leads resolutions of end-user problems
Rollout Coordinator	Plans rollout of a program or system, and coordinates with development, operations, and stakeholder teams to plan and execute the rollout plan.

End of Section 6 – Project Narrative

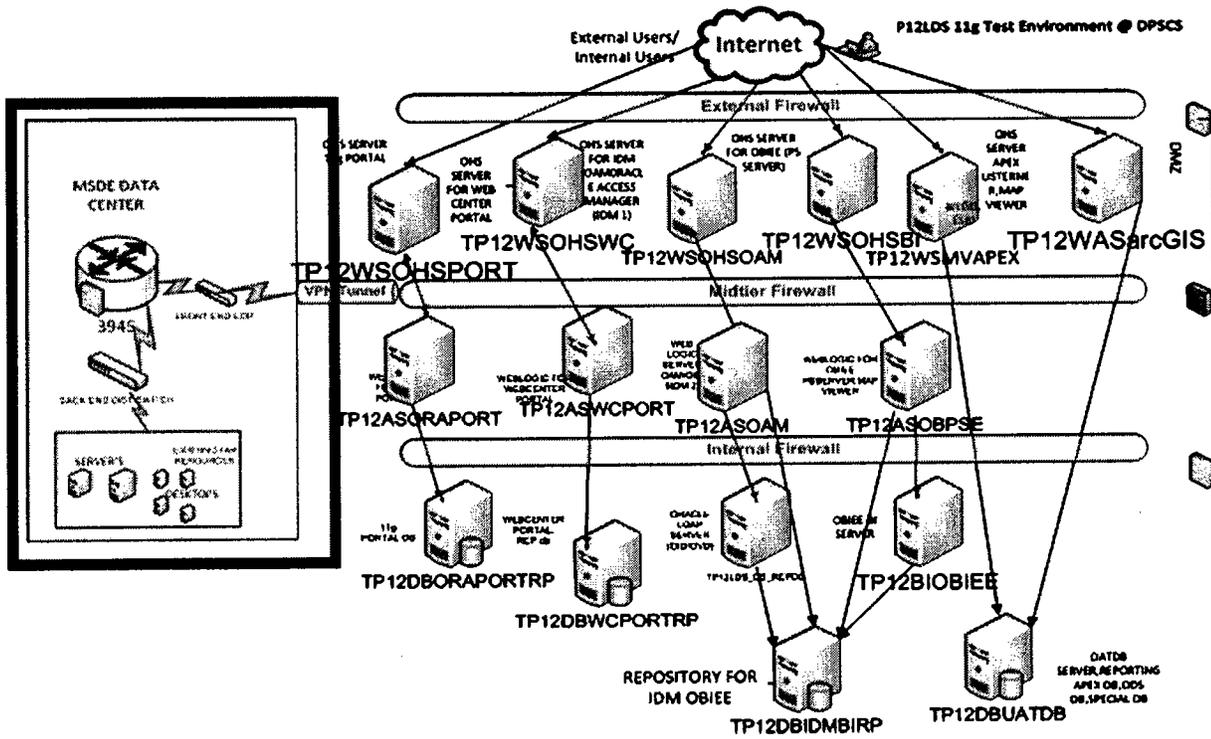
Appendix A

- Appendix 1 - High-level Diagram of PK12 and P20W Components
- Appendix 2 – Logical Architecture of PK12 and P20W Servers
- Appendix 3 - P20W SLDS Policy Questions
- Appendix 4 - How Maryland Currently Meets Section's IV. Priorities and Requirements
- Appendix 5 - Maryland State Longitudinal Data Center Interagency Governance
- Appendix 6 - Draft of P20W SLDS Education to Work Life-Span summary dashboard
- Appendix 7 - MSDE PK12/P20W Governance Structure
- Appendix 8 - MSDE-PK12 SLDS organization chart
- Appendix 9 - ITWG organization chart
- Appendix 10 - Project Management Portal

Appendix 1. - High-level Diagram of PK12 and P20W Components



Appendix 2 - Logical Architecture of PK12 and P20W Servers



3. P20W SLDS Policy Questions

Phase 1 P20W Policy Questions
1. Are Maryland students academically prepared to enter postsecondary institutions and complete their programs in a timely manner?
2. What percentage of Maryland high school exiters go on to enroll in Maryland postsecondary education?
3. What percentage of Maryland high school exiters entering college are assessed to need to take developmental courses and in what content areas?
4. How likely are students placed in developmental courses to persist in postsecondary education and transfer and/or graduate?
5. Are community college students able to transfer within state to 4-year institutions successfully and without loss of credit?
6. What happens to students who start at community colleges and do not go on to 4-year institutions?
7. What are the differences in performance, retention, and graduation, including time to degree, of students who initially matriculate at a Maryland community college and transfer to a Maryland 4-year institution versus those who initially matriculate at a Maryland 4-year?
8. What are the differences in performance, retention and graduation, including time to degree, of students beginning in dual enrollment programs, at 2-year institutions and at 4-year institutions?
9. Which financial aid programs are most effective in improving access and success (i.e., retention and graduation) for Maryland students?
10. What are the characteristics of 2-year institutions that are allowing students to persist most effectively and either graduate or transfer?
11. Which 4- year institutions are graduating students most effectively and in the timeliest fashion?
12. What are the educational and labor market outcomes for individuals who use federal and state resources to obtain training at community colleges or other postsecondary institutions?
13. What economic value do noncredit community college credentials have in the workplace?
14. Are exiters of Maryland colleges successful in the workforce?
15. How do all of the policy questions vary by different critical subgroups* and backgrounds?

Appendix 4 - How Maryland Currently Meets Section’s IV. Priorities and Requirements

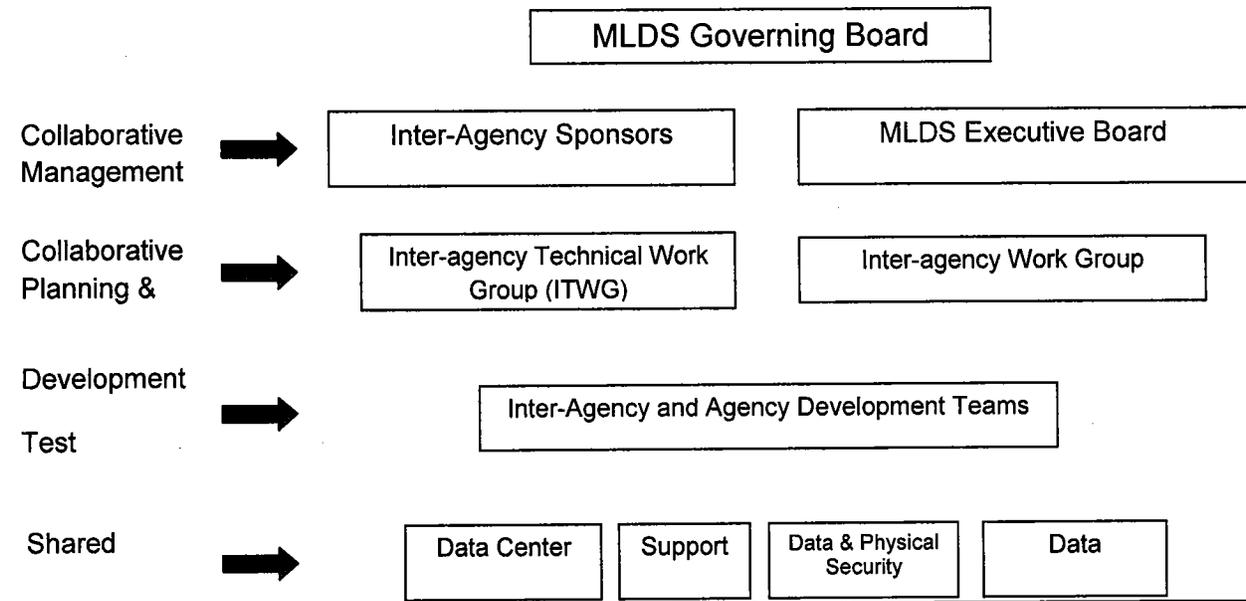
Requirement	How Maryland Meets Requirement
1. Demonstrate Partnerships	Meets Requirement - The PK12 SLDS team is a collaborative partner on the Maryland State Longitudinal Inter-agency Workgroup (which consists of about 16 government and non-government organizations), and Interagency Technical Workgroup. These group plan, advise, and oversee the development of the P20W SLDS and helps all participating agencies that contribute data to various feeder systems enhance their systems to meet the data needs dictated by the policy questions. Representation includes: public community colleges, technical colleges, adult education programs, career and technical education (CTE), public 4-year institutions, and State workforce agencies.
2. Postsecondary data required by the America COMPETES Act	Meets Requirement – Area of Improvement. Maryland Dept of Labor, Regulation, and Licensing K12 CTE Division, and Univ. of Maryland System participates in the P20W development is responsible for helping the interagency team develop post-secondary tracking and transition to the workforces policy questions and analytics for the P20W. Improvement needed in expanding data collections and cross-agency matching of individual data which is covered by Objective 1. Areas for improvement include; ability to match data based on directory data and maintain linkage based on a variety of user ids; missing data collections for juvenile corrections education data, GED adult education information, adult correctional educational data, and professional trade school education
3. Data and Data-use Tools	Meets Requirement – systems have portal, businesses intelligence front end for online dashboards and analytics. Dashboards are role based allowing different levels of information to be delivered to many different stakeholder groups
4. Governance	Meets Requirement – The Maryland Longitudinal Data Center and P20W system is run as inter-agency collaboration. There is an inter-agency boards, and several technical work groups. Appendix 5 shows the general structure and lists main participants. PK12 LDS governance is managed by a steering committee with all stakeholders from the agency participating.
5. Institution Support	Meets Requirement. See #4 Governance above
6. K12 Sustainability	Meets Requirement. K12 has a full staff and operations budget for its data center operations, DBA, programming technical staff, functional experts, Help Desk, quality control, and testing. LEA and end-user training is done for new projects. An online library of multimedia modules and user manuals exist for each application and dashboard for the SLDS.
7. P20 Sustainability	Meets Requirement - In Progress The Maryland Longitudinal

	Data Center is developing an operation budget that becomes effective 2014 when the center and system is to be fully operational. Technical, operations, and end user help desk support follows the PK12 SLDS model. Area for improvement that is requested by this project in Objective 4 is to develop training for SLDS researchers and legislators.
8. Privacy Protection and Data Accessibility.	Meets Requirement. Confidentiality of data is governed by FERPA and PII operations policies and practices. Data Security Governance is performed by the operations group and a Data Security Governance Team. Data Request Governance is managed by a variety of online request tools and a data request procedure. Both the PK12 SLDS and P20W SLDS have a full stack of security tools implemented at the access, communications, and database levels. Authentication is a two-token security system. Application authorization is down to the data level and is handled on role basis by the business intelligence suite. Where appropriate PII data is masked. Select PII data is encrypted in the database. Data access, management and security operations and governance practices are defined, documented and posted for review.
9. Data Quality.	Meets Requirement – Area for Improvement. Data collections for the PK12LDS are subject to rigorous data quality testing using standard data validations plus the use of a statistical control program that checks for data trends for out of range conditions. End users are trained during a rollout of a data collection and manuals are provided. All data coming into the systems are subject to validation and a statistical control process. Area for Improvement is addressed by Objective 3 to improve matching quality of interagency data through probabilistic matching for individuals with different ids and the implementation of a master data management system.
10. Interoperability	Meets Requirement Area for Improvement. Technically the PK12LDS and the P20W have a high degree of interoperability at the data based level. Other systems transferring data required a batch transfer system and use a secure Master File Transfer system. From a data standpoint, the PK12 LDS is aligned with CEDS 2.0 draft. The new P20W is fully CEDS 2.0 compliant and is aligned with IPED standard. Maryland State Dept of Education has adopted SCED, but the LEAs have the option to adopt SCED on a voluntary basis. As a result we have a non-SCED to SCED translation system that the LEAs used to align their courses with SCED that is used to convert student courses when stored at the SEA. CTE systems are CIP compliant. Area for improvement is addressed by Objective 2 to implement a master data management system to manage the translation of core data

	between disparate legacy systems.
11. Enterprise-wide Architecture.	Meet Requirement – Area for Improvement. The PK12 SLDS and P20W have a standard architecture and use common suite of enterprise tools. Longitudinal data linkage has been implemented using a unique student and teacher identifier, student directory data, and SSNs were available. Both systems use the Oracle BI suite for longitudinal data analysis there are over 37 dashboards under development for the Race to the Top grant. The systems use a CEDS based standardized data model if appropriate. There is both a public data glossary, and a new cross-application meta-data dictionary that comes for the North Carolina SLDS team. Area for improvement is addressed by Objective 2 to implement a master data management system to translate and maintain a multitude of individual ids and to reconcile those ids.
12. Secure Access to Useful Data for Key Stakeholder Groups.	Meets Requirement. Security access to the PK12 SLDS and P20W SLDS are governed by FERPA and managed by a security team. Both systems have a full stack of security tools implemented at the access, communications, and database levels. Authentication is a two-token security system. Application authorization is down to the data level and is handled on role basis by the business intelligence suite. Where appropriate PII data is masked. Select PII data is encrypted in the database. Data access, management and security operations and governance practices are defined and being implemented.
13. Data Use	Meets Requirement for PK12 SLDS. Under Development for P20W SLDS but <u>area needs improvement</u> for the development of career and college preparation, readiness, and transition dashboards. Objective 3 focuses on improving usable data dashboard deliverables to improve policy and decision making.
14. Data Use - K12 Feedback.	Meets Requirement. The PK12 SLDS have a variety of feedback reports and websites for the LEAs. Currently in progress is the development of 37 information, accountability and performance dashboards that is funded by the Race to the Top grant. Currently operation is a post-secondary higher education attendance dashboard for the LEAs based on National student Clearance data that shows the LEAs student attendance at two and four year colleges. Object 1 is to improve this data collection by adding professional trade school collection.
15. Data Use Consumer Information	Meets Requirement. The PK12 SLDS and the Maryland Higher Education Commission has a variety of consumer information websites and dashboards including; student dashboards showing student progress and alerts, early child provider information, grant and financial information, inter-college course transfer information, college rating etc.
16. Data Use	Partially Meets Requirement – Area of Improvement. PK12

Postsecondary Feedback.	SLDS and the Maryland Higher Education Commission tracks college attendance and transfers via dashboards using Maryland Higher education data and National Student Clearinghouse data. Integrated dashboard being developed with Maryland Higher Education new data warehouse will track graduate degrees and exit to the workforce. Area for improvement is creating a better data collection for exiting higher education graduates and tracking of 1 st jobs. Objective 5 is a research project design to explore post-graduate school exit job acquisition
17. Training Data, Tools Products.	Meets Requirement. All SLDS dashboards and tools have multimedia products that teach how to use the tools and dashboards.
18. Professional Development on Data Use.	Partially Meets Requirement – Area for Improvement Current system has a multimedia module for each dash boards that explains its use. The LEA are in the process of receiving LDS data coaching on how to use longitudinal data. Gap to be filled by Objective 4 which extends professional development to new LDS researchers and provide legislators with SLDS training.
19. Evaluation	Meets Requirement. - Race to the Top has a \$5 million dollar assessment with Towson University. The existing LDS training and professional development programs will be reviewed.
20. Partnerships with Research Community.	Meets Requirement. Data request manual and portal for external and internal requests. Draft document downloadable from PK12LDS portal at http://p12lds.msde.state.md.us - click “Data Requests”
21. Sustainability Plan.	Meets Requirement. The PK12 SLDS maintenance and operation is part of MSDE’s operations budget. The P20W SLDS maintenance and operation is being included in the Maryland Longitudinal Data Center’s operations budget that is being submitted for funding for state budget year 2014 when the system is to go live. All other agencies participating in grant have operational sustainability plans

Appendix 5. Maryland State Longitudinal Data Center Inter-Agency Governance



Representation on the MLDS Governing Board includes:

- Dr. William “Brit” Kirwan President, University System of Maryland
- Dr. Bernard Sadusky, State Superintendent, Maryland State Department of Education
- Dr. Danette Howard Secretary, Maryland Higher Education Commission
- Alex Sanchez, Secretary, Maryland Department of Labor, Licensing and Regulation
- Dr. David Wilson President, Morgan State University
- Ayana English-Brown Prince, George’s County Public School
- Dr. Michael Martirano Superintendent, St. Mary’s Public Schools
- Jason Perkins-Cohen, Jobs Opportunities Task Force
- Brian Roberts, Montgomery County
- Stephen Pannill, Maryland Association of Community Colleges

Appendix 6 – Draft of P20W SLDS Education to Work Life-Span Summary Dashboard

Governor's P-20 Leadership Council

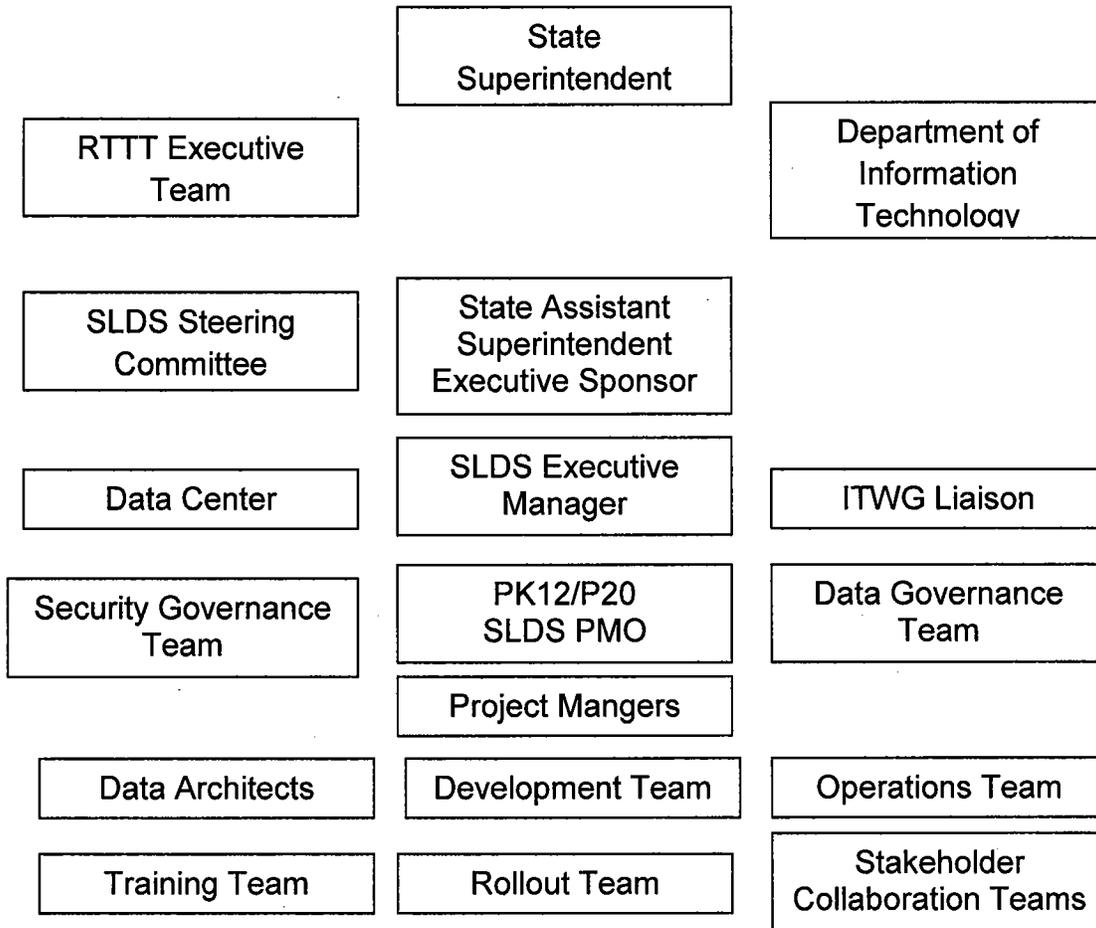
Welcome, rondon! [Dashboards](#) [Help](#) [Users](#) [Data Products](#) [Home](#)

Early Learning Through High School	Post High School Transition	Postsecondary Education and Training	Workforce Development and Employment	Innovations in Education - STEI Pipeline Teachers & Leaders			
Early Learning Through High School			Maryland Percent	National Avg./Goal	Change from Previous	Hyperlink	
Children Entering Kindergarten - Fully Ready			80.9%	90.2 %		Link	
4th Grade Reading and Mathematics Achievement			Math	82.7%	100%		Link
4th Grade Reading and Mathematics Achievement			Reading	80.2%	100%		
8th Grade Reading and Mathematics Achievement			Math	88.1%	100%		
8th Grade Reading and Mathematics Achievement			Reading	82.7%	100%		
High School Assessments – HSA English and HSA Algebra			Algebra	85.2%	100%		
High School Assessments – HSA English and HSA Algebra			English	87.9%	100%		
High School Graduation Rates – 4-Year Cohort				82.0%	74.9 %		

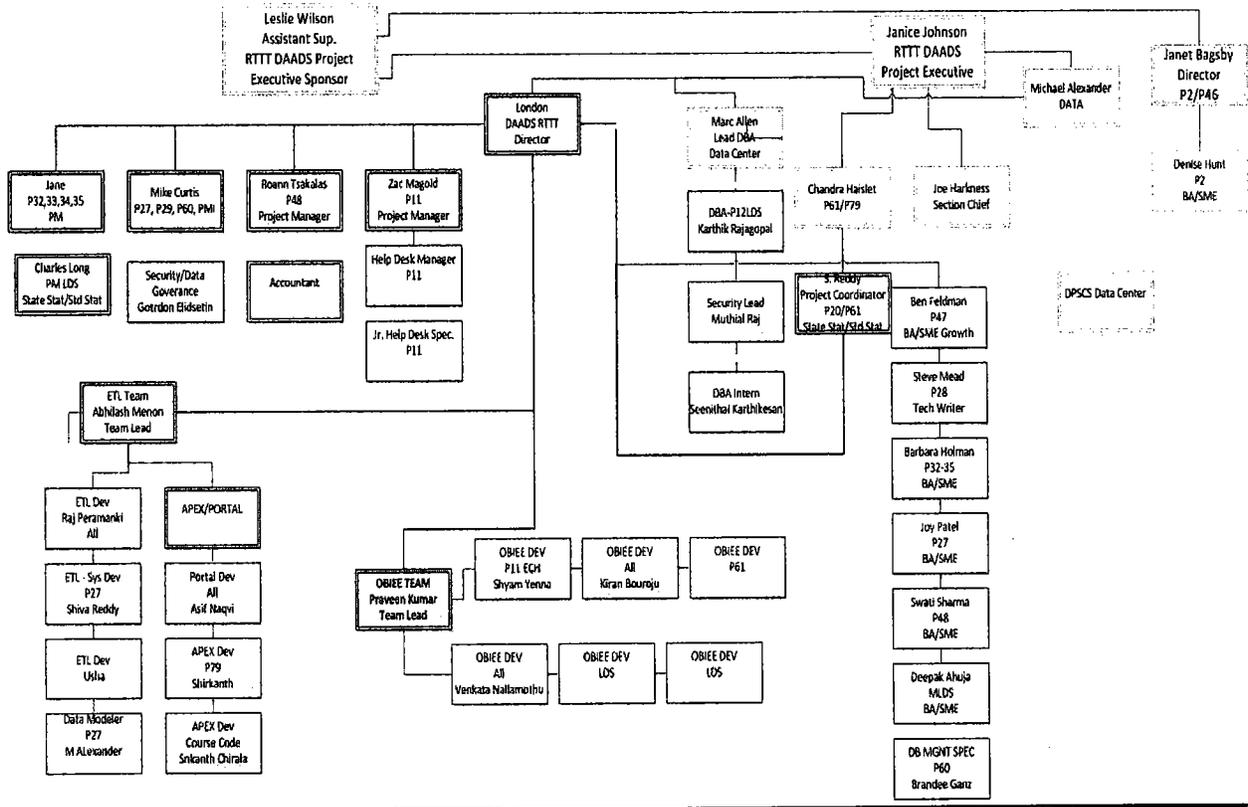
*National indicator includes all 2 and 4 year-olds enrolled in pre-school - US Education Dashboard

Post High School Transition	Postsecondary Education and Training	Workforce Development and Employment	Innovations in Education - STEI Leaders		
Post High School Transition		Maryland Percent	National Avg./Goal	Change from Previous	Hyperlink
Students Taking AP Exams and/or B Exams for Early College Credit		41.8%	40 %		
Students Graduating as Maryland Scholars		45.0%	100%		Link
Students Completing a Career/Technical Education Program of Study		18.2%	100%		
High School Graduates Enrolled in College - 1 Year after Graduation		29.0%	40 %		Link
Students Assessed as Needing Remedial/Developmental Courses in Postsecondary Education - 2009		2 Year	70.1%	10.5 %	
Students Assessed as Needing Remedial/Developmental Courses in Postsecondary Education - 2009		4 Year	17.0%	24.0 %	
Students assessed as Needing Remedial Education - Recent Grad - 2009			62.7%	100%	
College and/or Employment by Fall After Graduation (2010 grad)			78.7%	100%	

Appendix 7. MSDE-PK12 Governance Structure



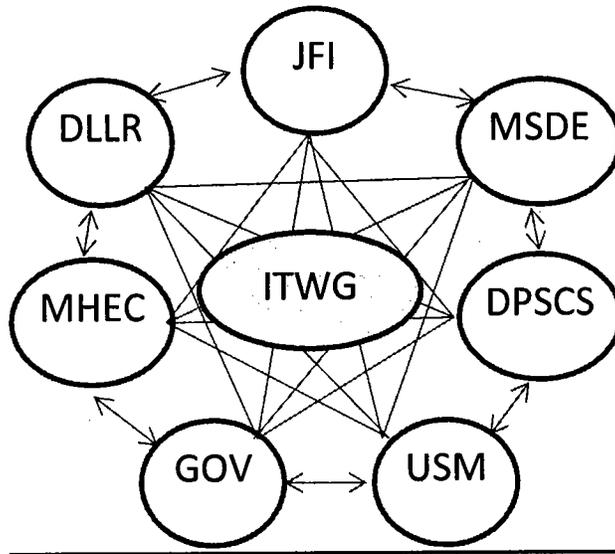
Appendix 8 - MSDE-PK12 SLDS organization chart



Appendix 9 – ITWG Organization Chart

The ITWG organization is a collaborative technical working team that makes inter-agency P20W development and operations recommendations. Members organizations include;

- DLLR = Department of Labor, Licensing and Regulation
- Jacob Frances Institute (Operations center for DLLR)
- MSDE = Maryland State Department of Education
- DPSCS = Data Center for MSDE
- USM = University System of Maryland
- GOV= Office of the Governor
- MHEC = Maryland Higher Education Commission



Key group members from the collaborative agencies include:

- B. Phillips – MDACC
- C. Haislet - MSDE
- D. Spicer - USM
- D. Stevens – Univ. of Baltimore
- J. Popovich – Morgan Univ.
- M. Wheidrich - SMCM
- B. Passmore – USM
- P. Pscherer – MICUA
- A. Lagdameo – Office of the Governor
- S. Pillai - DLLR
- R. London – MSDE
- P. Jackson – MHEC

Appendix 10 – Project Management Portal

[Home](#) | [About](#) | [Contact Us](#) | [Privacy Policy](#)

Maryland State Data Projects Portal

[Good Morning!](#)
[My Home](#)

Login and Logout

Enter your user name and password to login.

User Name:

Password:

About This Site

Welcome to the Maryland Longitudinal Data Systems Portal.

This is the entry point to a variety of educational data collection and analysis systems. This is a secure portal that requires access authorization. To request access, or to report a problem please contact the Web Administrator via the Contact Us form below.

Office of the GOVERNOR

What's New?

- Webinars - Upcoming and Playback
- Creation of LEA Collaboration Team
- Clearinghouse data moves towards rollout
- Standard course code move into LEA

P-12 Longitudinal Data System

RTTT - Race To The Top

State STAT

State LDS Longitudinal Data System

Race to the Top Grant Information

Maryland Data Projects Portal

[P-12 LDS Project](#) | [RTTT Group](#) | [Career & Tech Ed](#) | [Early Childhood](#) | [MSDE Data Quality](#) | [Procurements](#)

:: Welcome to P-12 LDS

- [P-12 LDS Master Workbook](#)
- [Project Work Books](#)
- [Staff Work Plans](#)
- [P-12 Data Center](#)
- [Team Org, Contacts, Charters](#)
- [Team Calendar](#)
- [Status Reports](#)
- [Risk/Issue Log](#)
- [Procurement Log](#)
- [Budget Log](#)
- [Team Policies](#)
- [Request A Project](#)
- [Manage Comments](#)

Overview/Scope | [Strategies](#) | [Road Map & Sub-Projects](#) | [Project Plans & IT/ITRs](#) | [Budget/Est.](#) | [QA Plan](#) | [Resource Plan](#) | [Comm Plan](#) | [Risk Plan](#)

About this section...

This is the Division of Accountability and Assessment's P-12 Longitudinal Data Systems (P-12 LDS) Project and Applications Portal. This is a collaborative portal used by the P-12 LDS team.

This portal contains a variety of web information related to the student longitudinal data and applications. You can use the Side Menu on the left to navigate through the portal to access the information provided within this site. To request access or report a problem please contact the Web Administrator via the [Contact Us](#) form below and we will contact you shortly.

Thank You

Overview/Scope/Charter

This project management site contains basic P-12 LDS project information on;

1. Project scope
2. Project progress management
3. Project status
4. Workplans
5. Stakeholder communication

[P-12 LDS Project](#) | [RTTT Group](#) | [Career & Tech Ed](#) | [Early Childhood](#) | [MSDE Data Quality](#) | [Procurements](#)

- [P-12 LDS Master Workbook](#)
- [Project Work Books](#)
- [Staff Work Plans](#)
- [P-12 Data Center](#)
- [Team Org, Contacts, Charters](#)

MLDS_PROJECT_WORKBOOKS: 24 - ClearingHouse

Overview/Measures | [Document Plan](#) | [Team Statements](#) | [SDLC Documentation](#)

PM/Admin | Initiate | Concept | Plan | Rqmts | Design | Develop | Test | Implement | Operate

PM, Admin, Meeting Notes Documents

📄 No documents at this time



MARTIN O'MALLEY
GOVERNOR

STATE HOUSE
100 STATE CIRCLE
ANNAPOLIS, MARYLAND 21401-1925
410-974-3901
TOLL FREE: 1-800-811-8336

TTY USERS CALL VIA MD RELAY

December 15, 2011

Dr. Tate Gould
Institute of Education Sciences
National Center of Education Statistics
1990 K Street NW, Room 9023
Washington, DC 20208

Dear Dr. Gould:

With nationally recognized programs like *StateStat*, Maryland is a leader in performance based management. A core objective of my Administration is to make state government more accountable and efficient through the application of data-driven performance measurement tools. To ensure that we have the data necessary to evaluate education performance and policy, and to drive the type of education reform agenda championed by President Obama and Secretary Duncan, we have made the development and implementation of the Maryland Longitudinal Data System a key priority for the State.

On behalf of the State of Maryland and our many education stakeholders, I urge you to support Maryland's proposal for a grant under the *State Longitudinal Data Systems Grant Program*. This financial support will help the State expand data collection and link our postsecondary and workforce data with our data from early childhood, elementary school, and secondary school. With this accomplished, we will have a much more comprehensive and detailed understanding of how Marylanders progress through our education system, from their earliest years through school to college and career.

The support will also help us make this data more available and useful in the policy making process. By providing analytical tools and training for legislators and researchers, the proposed projects will ensure that timely, relevant data is used to drive decision making. This is especially critical when decisions are made about when, where, and how to apply education and training resources.

Letter to Tate Gould
Page 2

The proposed projects will be implemented under the leadership of the Office of the Governor in partnership with the Maryland State Department of Education, the Maryland Higher Education Commission, the Maryland Department of Labor, Licensing, and Regulation, the University System of Maryland, the Maryland Independent College and University Association, the Maryland Association of Community Colleges, local education agencies, and other education leaders and stakeholders. I am confident that this coalition of stakeholders involved can make success a reality.

Because so much of Maryland's economy is fueled by our education system and our educated workforce, I believe that a robust Maryland Longitudinal Data System is absolutely critical to our future economic growth and our continued leadership in innovation. It is an imperative, not just for our kids and their individual futures but for our collective economic future as a State. I hope that you will join us in building that system.

Sincerely,



Governor

MO'M:jr

□



Bernard J. Sadusky, Ed.D.
Interim State Superintendent of Schools

200 West Baltimore Street • Baltimore, MD 21201 • 410-767-0100 • 410-333-6442 TTY/TDD • MarylandPublicSchools.org

December 12, 2011

Dr. Tate Gould
Institute of Education Sciences
National Center for Education Statistics
1990 K Street NW, Room 9023
Washington, DC 20006-5651

Dear Dr. Gould,

The Maryland State Department of Education (MSDE) is pleased to have the opportunity to submit this application to fund additional development of the Maryland Statewide Longitudinal Data System. During this time of economic challenge, the funding made available to state educational and workforce agencies is greatly appreciated as it will permit a more fluid data sharing relationship with higher education and the Maryland workforce agencies.

With the support of the Governor, MSDE worked collaboratively with the higher education community and workforce agencies to develop this proposal. Maryland has a culture of using data for decision-making and in 2010, Senate Bill 275 created the Maryland State Longitudinal Data Center and governance board providing a solid foundation for the developing P20W longitudinal data system and center. Maryland's vision for its 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.

MSDE is committed to aligning policies, programs, requirements and expectations to ensure that all students and citizens have the knowledge and skills required to succeed in college, careers, and in life. As a member of the Maryland Longitudinal Data Center Governance Board, I look forward to the day when Maryland has a seamless repository of student data and workforce outcomes upon which to base future policy decisions.

Your consideration of this funding request is of vital importance in Maryland's ability to successfully meet reporting requirements at the federal, state, and local level and further the ability of key stakeholders to inform future policy decisions to enhance student achievement and prepare a highly skilled workforce in the future.

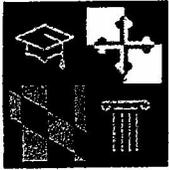
Sincerely,

(b)(6)

Bernie J. Sadusky, Ed.D.
Interim State Superintendent of Schools

Maryland Public Schools: #1 in the Nation Three Years in a Row

Application: R372A120036



MHEC

Creating a state of achievement

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

Arwer Hasan
Chairperson

Danette G. Howard
Interim Secretary

December 13, 2011

Bernie Sadusky, Ed. D.
Interim State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, MD 21201

Dear Dr. Sadusky,

The Maryland Higher Education Commission (MHEC) is pleased to support Maryland's Statewide Longitudinal Data System (SLDS) grant application to the U. S. Department of Education.

Maryland is diligent about working towards the goal of building a robust P20W longitudinal data system and this grant would provide an important vehicle for accelerating the completion of that goal. This application is the product of a multi-agency collaborative effort and strategic planning geared towards aligning Maryland's policies, programs, requirements and expectations. The SLDS program will help better equip students and the citizens of Maryland with the knowledge and skills necessary to enhance educational excellence and workforce preparation.

MHEC is prepared to support the projects described in the SLDS application and is a fully committed partner with our state's executive, legislative and educational leaders in efforts to develop a statewide technology infrastructure. The Commission has entered into a Memorandum of Understanding (MOU) with the Maryland State Department of Education which defines foundational projects to facilitate postsecondary data expansion, storage, processing and delivery to the SLDS. MHEC desires that all institutional segments be represented with the appropriate quality data on which important policy and program management decisions can be made.

On behalf of MHEC, I look forward to having the opportunity to work with our colleagues throughout Maryland and will ensure our commitment to the timeliness, scope and resources needed for the success of this valuable project. We join with our partners in encouraging the U. S. Department of Education to give Maryland's SLDS grant application the most serious consideration.

Sincerely,

(b)(6)

Danette G. Howard, Ph.D.
Interim Secretary of Higher Education

December 12, 2011

Bernie J. Sadusky, Ed.D.
Interim State Superintendent of Schools
Maryland State Department of Education
200 W. Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Sadusky:

The Department of Labor Licensing and Regulation (DLLR), Division of Workforce and Adult Education (DWDAL) strongly support Maryland's Statewide Longitudinal Data System (SLDS) grant application to the U.S. Department of Education.

Maryland's grant application is the result of collaboration, data-driven discovery, thoughtful deliberation and intense strategic planning – all intended to create a new era of world-class educational excellence in Maryland. Among all stakeholders in Maryland, there is a strong commitment to and serious action towards aligning policies, programs, requirements and expectations to ensure that all students and citizens have the knowledge and skills required to succeed in college, careers, and in life.

Maryland has been successful at expanding its PK12 data warehouse to include early childhood and career and technology education data, and an online business intelligence dashboard analytics system. With the help of Race to the Top funds, a multi-agency team is implementing a new state-wide P20W policy-based longitudinal data warehouse.

DLLR/DWDAL is prepared to support the projects described in the SLDS application and we are fully committed to working with our state's executive, legislative and educational leaders in developing a statewide technology infrastructure. We urge the U.S. Department of Education to give Maryland's SLDS grant application its most serious consideration.

Sincerely,

(b)(6)

Paulette Francois
Assistant Secretary
Division of Workforce Development
And Adult Learning

PHONE: 410.767-2999 - FAX: 410.333.5355 - INTERNET: www.dllr.state.md.us

Martin O'Malley, Governor - Anthony G. Brown, Lt. Governor - Alexander M. Sanchez, Secretary



OFFICE OF THE CHANCELLOR

December 12, 2011

1807
University of Maryland,
Baltimore

1856
University of Maryland,
College Park

1865
Bowie State University

1866
Towson University

1886
University of Maryland
Eastern Shore

1898
Frostburg State University

1900
Coppin State University

1925
Salisbury University

1925
University of Baltimore

1925
University of Maryland
Center for Environmental
Science

1947
University of Maryland
University College

1966
University of Maryland,
Baltimore County

Bernie J. Sadusky, Ed.D.
Interim State Superintendent of Schools
Maryland State Department of Education
200 W. Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Sadusky:

The University System of Maryland is pleased to provide our support and long-term commitment to the development of the Longitudinal Data System for the state of Maryland. We are proud to have been a partner with the Maryland State Department of Education (MSDE) in the development of the current grant proposal. We strongly support this plan.

In addition to my role as Chancellor of the University System, as you know, I serve as the Chair of Maryland's Longitudinal Data System Governing Board which has drawn together a broad range of education and workforce development partners from across the Maryland to provide guidance and oversight on the development of Maryland's Longitudinal Data Systems. The educational community in the state of Maryland, led by Governor Martin O'Malley, and all of its public and private partners, including the USM, the Maryland State Department of Education (MSDE), the Maryland Association of Community Colleges(MACC), the Maryland Independent Colleges and Universities Association(MICUA), and the Department of Labor Licensing and Regulation (DLLR) have worked together to design and plan a system which will link the state's education and workforce data in an exciting and unprecedented manner. The plan is driven by the most important policy questions facing Maryland education. It will result in a system which addresses all required features and technical capabilities outlined by the Data Quality Campaign and the U.S. Department of Education. Implementation has already begun and is proceeding rapidly and smoothly as it represents a consensus of education leaders across the state. This grant proposal will ensure the State of Maryland's ability to complete a powerful system which will answer the most important educational questions and deliver those answers to stakeholders throughout the state.

Maryland has assembled a highly qualified team from several agencies that are poised to begin work on the expansion of this system. The current efforts by MSDE will be expanded to include important new postsecondary and workforce data, as well

as expanding the availability and utility of K-12 data. We are committing personnel and significant staff time and expertise to ensure the SLDS is a success.

The USM and the State of Maryland are keenly aware that the ability to monitor, study and improve the quality of education is the key to the economic competitiveness and leadership of our state and nation in the years to come. We are prepared to do our part in creating this important tool for accomplishing those goals. We urge the U.S. Department of Education to fund the Maryland SLDS grant application.

Sincerely yours,

A handwritten signature in black ink, appearing to read "WE Kirwan". The signature is written in a cursive, somewhat stylized font.

William E. Kirwan
Chancellor

Michael Beck

(b)(6)

Professional Experience

Maryland State Department of Education
Division of Career and College Readiness
Student and Assessment Services Branch
200 West Baltimore Street
Baltimore, Maryland

Career Technology Education (CTE) Program Analyst (January, 2002 to present)

- Conduct data collection, analysis and reporting activities to support secondary and post-secondary CTE performance improvement initiatives.
- Provide technical assistance to Local School System and Community College CTE program administrators on issues of student performance measurement and analysis.
- Generate wide range of ad hoc reports for internal and external customers on issues related to student data, CTE program performance, etc.
- Assist with coordination and implementation of civil rights compliance review of CTE programs at secondary, post-secondary and in correctional system programs.

Maryland Higher Education Commission
16 Francis Street
Annapolis, Maryland

Senior Education Analyst / Staff Specialist (January, 1984 to January, 2002)

- Served as key advisor to Director of Academic Affairs on policy and regulatory initiatives relative to postsecondary career / workforce education.
- Evaluated applications for approval from private postsecondary institutions for initial approval to operate in Maryland, as well as applications for new programs.
- Coordinated and conducted meetings of the Private Career School Curriculum Assessment Committee of the High Technology Council of Maryland.
- Participated in researching and generating reports to Higher Education Commission and Legislature on matters relating to career and technology education.
- Conducted comprehensive on-site evaluations of Private Career Schools to ensure compliance with Commission minimum comprehensive requirements.
- Analyzed results of investigations and prepared comprehensive deficiency reports in cases where serious violations were found.
- Worked closely with Office of the Attorney General to prepare contested deficiency cases for administrative court; testified at formal hearings.
- Provided assistance to students displaced by school closures by coordinating "teachout" programs at other approved postsecondary institutions and/or providing tuition refunds.

- Coordinated operation of Commission's Private Career School Division in absence of Director.

Prince George's County
Consumer Protection Commission
Upper Marlboro, Maryland

Special Investigator (January 1979 to January 1984)

- Investigated consumer complaints to determine possible violations of local, state and federal laws and regulations.
- Provided mediation service to consumers and merchants to resolve complaints on an informal basis whenever possible.
- Drafted formal charges against merchants in cases where violations were found.
- Conducted undercover investigations to document suspected illegal business practices on the part of merchants.
- Prepared cases against merchants and testified at formal hearings.
- Communicated with the press regarding the results of various cases.

Prince George's County
Office of the County Executive
Upper Marlboro, Maryland

Community Affairs Specialist (May 1978 to January 1979)

- Responsible for daily operation of ombudsman office with staff of ten.
- Reviewed operation of various County departments to assure compliance with County Executive's policies.
- Reviewed correspondence prepared for County Executive's signature by staff.
- Prepared special reports for the County Executive on various community issues.
- Served as liaison to various governmental advisory and community organizations.
- Participated in organizing, publicizing and conducting monthly community "Town Meetings."

Prince George's County
Office of the County Executive
Upper Marlboro, Maryland

Community Affairs Assistant (March 1975 to May 1978)

- Responded to citizen complaints, suggestions and questions on behalf of the County Executive and County Council.
- Acted as constituent liaison for inquiries and suggestions on education and library system issues.
- Attended various community and civic association meetings as liaison with these groups for the County government.
- Responsible for supervision of office of twelve in absence of Director.
- Assisted in conducting County government's monthly "Town Meeting" program.

Education

University of Maryland (1985-86)

College Park, Maryland

6 Graduate Credits: Industrial, Technological, and Occupational Education

Ithaca Montessori Teacher Training Program (1972-73)

Ithaca, New York

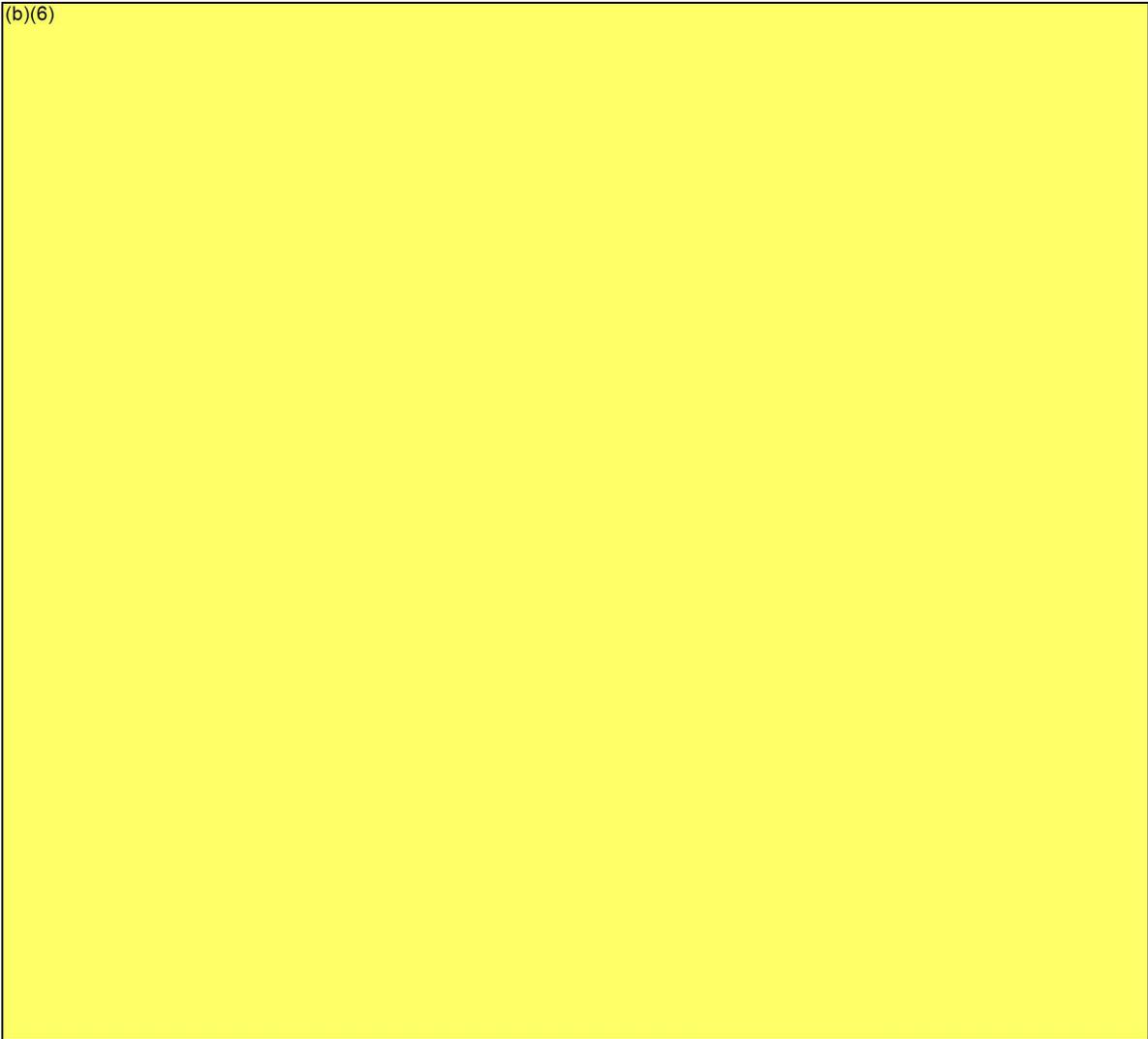
Montessori Teacher Certification

University of Notre Dame (1968-72)

South Bend, Indiana

Bachelor of Arts Degree: Psychology

(b)(6)



Robyn J. Brayton

Data Processing Supervisor, Maryland Higher Education Commission

Education

- University of Maryland, College Park MD- B.S. Business Administration Minor: Statistics
- Anne Arundel Community College, Severna Park, MD-30 credits Computer Science.

Work Experience at the Maryland Higher Education Commission.

Maryland Annual Collection (MAC) Survey Coordinator for Enrollment, High School Graduate first year postsecondary performance, and Community College Continuing Education Course Inventory systems. These duties involve collecting, editing, aggregating and reporting of unit record data received from colleges and universities in Maryland. Every effort is made to review edit and consistency reports and work with the colleges to provide accurate data for updating the MHEC aggregate and retention files used for research and reporting. As a MAC survey coordinator, I upload the aggregate data from these files to IPEDS and work with the colleges to complete the national surveys in a timely manner. Other work involves matching and providing data for MSDE Perkins requests, and maintaining the Optional Retirement Monthly Reimbursement system.

As Web Master I am responsible for meeting the State requirements for web-site design branding and accessibility and to maintain these standards for all web specialist's work. Duties also include designing and developing web applications and databases to enable data collection and reporting on the MHEC web-sites. I have participated in the planning stage and monitoring of progress on two CATSI TORFP's for MHEC sub-web-sites.

Previous Experience

Developed county wide resource application and database for child and family county support services

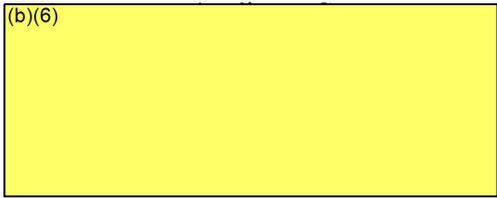
Developed payroll programs and reports for federal and state payroll tax requirements.

Wrote programs for tracking store inventory using bar-code technology and remote data transmission.

JON ENRIQUEZ

Maryland Higher Education Commission

(b)(6)



Professional Experience

Associate Director, Office of Research and Policy Analysis, Maryland Higher Education Commission, Baltimore, MD.

Prepare informational reports and analyses about current higher education topics; provide data on behalf of agency in response to legislative and executive mandates; coordinate data collections and the annual accountability process; participate in and support inter-agency and inter-segmental working groups; respond to requests for information from state entities, external organizations, and the public.

Director of Institutional Research, Siena College, Loudonville, NY.

Collected data and performed quantitative and qualitative research on a range of institutional questions and reported on that research to internal and external audiences; ensured compliance with external reporting requirements; designed and maintained print- and web-based tools that provide data to the campus community; conducted benchmarking across multiple institutions; designed and carried out a study to identify peers and aspirants using a cluster-analysis-based protocol.

Registrar, St. John's College, Annapolis, MD.

Served as lead analyst for an extensive historical investigation of conditions at and practices of the college; developed standardized processes for ensuring compliance with federal, state, commercial, and voluntary reporting requirements; led implementation of a new integrated student information system; built the academic schedule and assigned students and faculty to classes in accordance with the structure of the college's all-required curriculum; administered academic regulations, monitored students in academic jeopardy, coordinated commencement activities, and ensured student eligibility for graduation.

Associate Dean of Academic Affairs and Registrar and Director of Institutional Research, Hanover College, Hanover, IN.

Conducted quantitative and qualitative research on institutional activities and reported on that research to a variety of internal and external audiences; coordinated a faculty-centered assessment program, providing resources, organizing workshops, and supporting the work of the faculty assessment committee; represented the Dean on standing and ad hoc committees with responsibilities including academic regulations and exceptions, curriculum, faculty development, and teacher education; oversaw academic advising program, conducted development for new advisors, prepared resources and materials, resolved questions and conflicts, advised students; managed the faculty process governing students' requests for extraordinary study options and exceptions to regulations.

JON ENRIQUEZ

Page Two

Professional Experience, continued

Associate Director of Academic Affairs and Graduate Admissions, Georgetown University Graduate School.

Managed student registration and records; provided information to prospective students; ensured compliance with academic regulations; verified eligibility for graduation.

Staff Writer, Office of News and Public Affairs, University of Pennsylvania.

Wrote and edited press releases, articles, and news summaries; maintained office archives; provided general administrative and clerical support.

Education

Ph.D. (History), Georgetown University, Washington, DC.

M.A. (American Civilization), University of Pennsylvania, Philadelphia, PA.

A.B. (American Studies), Georgetown University, Washington, DC.

Professional Memberships

Maryland Association for Institutional Research (MdAIR). Current member, Board of Directors.
North East Association for Institutional Research (NEAIR)

Selected Publications, Presentations, and Book Reviews

"The Changing Role of the Registrar," American Association of Collegiate Registrars and Admissions Officers, March 2009.

"Accreditation and Transfer: The Changing Landscape," American Association of Collegiate Registrars and Admissions Officers, March 2008.

"Preparing Students for Classes," National Conference on the First-Year Experience, February 2004.

Review, *College Deans: Leading from Within*, for *AAHE Bulletin*, May 2003. Reprinted for "Tomorrow's Professor," May 20, 2003 (TP #485).

Review, *Making Harvard Modern*, for *AAHE Bulletin*, June 2002.

"Sports Journalism," chapter in W. David Sloan and Lisa Mullikin Parcell, eds., *American Journalism: History, Principles, Practices* (Jefferson, NC: McFarland), 2002.

"Get Someone Else to Write Your Syllabus!," Lilly Conference on College Teaching, November 2001.

Chandra Haislet

(b)(6)

PROFESSIONAL EXPERIENCE

*** The Maryland State Department of Education, Baltimore MD**

(P20W Interagency Coordinator: Nov 2010 – present) Provide coordination and technical assistance to state education leaders and local school systems to create high quality data products that provide stakeholders with the information they most want and need for effective data driven decision making.

- **P20W Race to the Top Project:** Responsibilities include coordinating the collaborative interagency development efforts for developing the P20W longitudinal data system. Key duties include managing an Interagency Technical Work Group and coordinating 14 sub-projects to ensure continuous feedback on how to improve the longitudinal data system so it meets all stakeholder needs.

*** The Education Alliance at Brown University, Providence RI**

(Research Associate: May 2003 – Oct 2010) Served as the lead data manager and analyst on a variety of educational research and consultative projects, always as part of a team, and tasked with carrying out key project activities and objectives.

- **New York City Curriculum Audit:** Lead data manager for the English Language Learner portion. Responsible for the development of data collection tools, verification procedures, coordinating analysis of large datasets, and report development. Key duties include development of the relational database to house project data, development of data collection tools and streamlining data collection processes, report development and scripting code to transfer data across platforms (Access, Excel, Word, and NVIVO, VBA).

- **Striving Readers Research Project:** Lead data manager for a five year random control trial evaluation of the implementation and impact of adolescent literacy programs in two urban Massachusetts school districts.

Responsible for developing project databases and managing all project data, including student test scores, demographic data, student roster and attendance data, teacher survey, observation and interview data, and teacher professional development and certification data. Key duties include serving as the primary contact for district officials to ensure accurate and quality data management and coding across platforms, and annual and longitudinal analysis of the impact of the reading interventions on school and student performance.

- **Magnet Schools Research Project:** Implemented systemic solution to meet multiple deadlines in the second year of a three year rigorous evaluation of magnet schools in multiple districts and states. Responsible for the development of formative reports and the process for rapidly transforming longitudinal student and teacher survey data from multiple SPSS files to generate district and school level reports. Key duties include ongoing technical assistance and training on Access, VBA and Excel pivot tables.

*** Citizens Bank, Providence RI**

(Financial Analyst / Data Manager: Oct 2000 – May 2003) Data manager and analyst of financial, e-commerce and marketing data to identify trends, strategies and outcomes related to departmental initiatives.

- **Financial Analyst:** Analyst for a four person team in the Emerging Channels Marketing department responsible for the 'Mad Dash' initiative to improve the profitability of the ATM portfolio. Responsible for the development of a software application tool to determine the return on investment for new ATM's and identify non-profitable ATM's. Key duties included management and renewal of

ATM lease agreements and to provide recommendations to senior management for placement or removal of ATM's.

- **Data Manager:** Database administrator in the Emerging Channels Marketing department as part of the 'Bizmart' strategy team, an e-commerce website for small businesses.

Responsible for managing the accuracy and confidentiality of warehoused purchasing and sales data and develop and produce multiple weekly to quarterly sales and executive reports. Key duties included programming to streamline the production of reports and to identify trends and strategies and present to senior management.

- **Technology Specialist and Data Manager:** Management support in Merchant Products & Services, a department to process credit card transactions for businesses.

Responsible for technical assistance and leading cross functional teams to support management objectives. Key duties included the development of a data management system and data-entry spreadsheets to improve productivity, to streamline workflow and to generate real time reporting and auditing.

* **Saint Raphael's Academy, Pawtucket RI (High School Science Teacher: Jan – Jun 2000)**

Full - time teacher in biology chemistry and physics. Additional duties included development of curriculum and assessments and assistant golf coach.

* **Westiew High School, Beaverton OR (High School Science Teacher: Sep 1997 - Dec 1999)**

Full - time teacher in integrated science ecology marine biology and biology. Collaborated to develop performance-based assessment tools and techniques to inform instruction and align curriculum to standards as mandated by the state of Oregon. Incorporated technology based curriculum as a school-wide goal.

* **Forest Grove Swim Club, Forest Grove OR (Manager and Head Coach: Aug 1996 - Mar 1999)**

Responsible for all management, personnel, and coaching responsibilities for a nationally competitive swim team.

FORMAL EDUCATION

DePaul University, Chicago Illinois - Certification in Secondary Education for Biology

Northwestern University, Evanston Illinois - Bachelor of Science, Speech Pathology

RELATED PROFESSIONAL EXPERIENCE

Brown University Professional Development Courses (2005-Present)

- Database Management, FileMaker Pro, ArcGIS, HTML, and Managing Change

Horizons Project Portland State University Research Institute (www.horizons.pdx.edu) (1998)

- Participated in research to monitor, analyze and model atmospheric changes and develop curriculum with real-time data.. Collected field data to identify the urban heat island affect (GIS).

COAST collaboration (1999)

- Grant awarded to develop curriculum using technological tools to study oceanography.

HONORS AND AWARDS: SWIMMING

Olympic Trial Qualifier, NCAA Division I Qualifier in Nine events, US All American Team

Parris L. Jackson
Interim CIO, Maryland Higher Education Commission

Education:

Bachelor of Science, University of Baltimore, Baltimore, MD
Management Information Systems

Work Experience:

Interim Director, Information Systems Technology
Maryland Higher Education Commission, Baltimore, MD 21201

- Responsible for managing information systems activity, office automation, computer center, computer support staff, budgeting, procurements and strategic planning
- Responsible for data collection including management and oversight of the Maryland High Education Commission postsecondary information system. This includes both the student unit record and aggregate reporting of higher education information to the State which is coordinated with the federal reporting for the Integrated Postsecondary Education Data System (IPEDS). The Maryland Higher Education Commission has collected student unit record information for 30 years.

Associate Director, Information Systems Technology
Maryland Higher Education Commission, Annapolis, MD 21401

- Reported directly to IT Director and assisted in providing management of IT unit activities, direction of IT staff and lead on certain agency level projects
- Works closely with financial aid system vendor and Office of Student Financial Assistance Associate Director to coordinate system projects and implement new system enhancements
- Responsible for communicating with financial aid officers at institutions and outside IT staff that requires assistance with agency financial aid data transfer systems.
- Functions as data base manager for OSFA to insure integrity of production, test and research environments
- Coordinates the collection, editing and reporting for agency's statewide Maryland Annual Collection (MAC) for financial aid information survey data
- Wrote and maintains application programs for financial aid information system

Previous Experience:

Social Security Administration
National Computer Center, Woodlawn, MD 21207

- Performed computer operations on system peripherals
- Performed preventive maintenance

Janice L. Johnson

Experience

Maryland State Department of Education (Baltimore, Maryland)

May 1999 – Present Chief, Education Accountability

- Provide leadership and technical expertise in developing plans for the Department's education accountability program under the federal No Child Left Behind Act and state COMAR Education Article, 2-205, 2-206, 2-203, 5-201 -5-206, 7-202, 7-203, and 7-301, Annotated Code of Maryland in particular, documented management of education accountability projects and related service contracts. Provide leadership in the Division's conceptual and strategic planning process.
- Define the data based areas and formulas to meet federal and state accountability requirements for the Maryland School Assessment, High School Assessment, Alternative Maryland School Assessment, and Adequate Yearly Progress. Define the systemic process: data based areas, and formulas for the Highly Qualified Teacher requirement of NCLB.
- Translate the data based areas to technical specifications for local school systems and collaborate with local accountability coordinators to meet state and federal requirements for data collection and dissemination.
- Manage all education accountability systems through complete life-cycle development and implementation. Define hardware requirements for all accountability systems.
- Manage the preparation and administration of budgets for the branch.
- Identify, allocate and monitor both fiscal and human resources for each project assigned in order to meet federal and Department's education accountability requirements.
- Provide leadership and direction to twenty-four Maryland Local Accountability Coordinators in defining data based areas, formulas and comprehensive understanding of how schools meet or not meet Adequate Yearly Progress (AYP) under the federal NCLB requirements.

Education

2003 B.S. Management Information Systems
Minor, Computer Studies
University of Maryland University College (Adelphi, MD)

Elizabeth Kelley

(b)(6)

EDUCATION

Hood College, Frederick, MD
Major: Early Childhood Education
Degree: Master of Arts, 1983

Gardner-Webb College, Boiling Springs, NC
Major: Intermediate Education, Concentrations: Art and Science
Degree: Bachelor of Science, 1974

(b)(6)

EXPERIENCE

Maryland State Department of Education

- June 2007 to Present, Director – Office of Child Care
 - Oversight and management of all aspects of the Office of Child Care, licensing, credentialing, child care subsidy and program development. Supervise six staff positions, three in the Director's Office and three branch chiefs.
- July 2005 to June 2007, Branch Chief – Division of Early Childhood Development – Office of Child Care – Credentialing Branch
 - Oversight and management of child care credentialing, tiered reimbursement, training/trainer approval, and child care center staff evaluation. Lead contact and program expert for the Child Care Automated Tracking System (CCATS) for the Credentialing, Tiered Reimbursement, Training Approval and Staff Evaluation components. Represent Division at meetings and conferences. Supervise five staff positions.

Maryland State Department of Human Resources

- September 2000 – July 2005, Director – Child Care Administration – Office of Credentialing
 - Oversight and management of credentialing, tiered reimbursement, training/trainer approval, staff evaluation course approval and Healthy Child Care Maryland programs. Prepared and held responsibility for Office of Credentialing budget, lead contact and program expert for the Child Care Administration Tracking System – Credentialing (Phase One). Presented testimony to the Maryland State Legislature, represented agency at conferences, public hearings, and meetings. Supervised five staff positions.

- March 1996 – September 2000, Regional Manager – Region 13, Carroll County
 - Management of the Child Care Administration Regional Office for Carroll County, supervised four licensing specialists and one office secretary. Responsible for planning and implementing child care licensing and registration activities, orientation sessions and roundtables, community collaboration activities, case management. Represented agency at administrative hearings and provided expert testimony as necessary.
- February 1994 – March 1996, Licensing Supervisor – Region 12, Frederick & Carroll Counties
 - Supervised licensing staff and secretary in Carroll County field office. Reviewed records, conducted orientations and roundtables, provided guidance to staff in the areas of inspections, enforcement actions, case management. Maintained a partial family child care caseload. Opened all new child care centers in Carroll County.
- 1991 – February 1994, Program Specialist – CCA Central Office
 - Developed and prepared manuals, workbooks and forms for use by licensing staff and providers. Provided training to licensing staff and providers. Participated in seminars and workshops as a representative of CCA. Processed child care training approvals and evaluated child care training curricula. Maintained a list of all approved trainers. Represented CCA on a variety of child care committees and workgroups, including the development of the Child Care Development Block Grant State Plan.
- September 1988 – 1991, Licensing Specialist – Region 5, Montgomery County
 - Conducted licensing and registration inspections, maintained a full-time caseload of homes and centers. Conducted family and center orientations. Member of the staff evaluation workgroup.

Frederick Community College

- January 1988 – May 1989, Instructor, 64 hour course
 - Planned and implemented the required pre-service course for child care center staff. Prepared lesson plans and instructed adults. Graded papers, provided instruction in all areas of child development and curriculum planning.

KinderCare Learning Center

- 1986 – 1988, Kindergarten Teacher/Co-Director
- 1985 – 1986, Director (Supervised 17-20 staff)
- 1983 – 1985, Senior Staff/Assistant Director
 - Job responsibilities included: supervising staff and program for a center of 96 children ages 2-12. Planned and provided instruction for kindergarten program. Planned menus, posted all tuition payments, purchased equipment and materials. Conducted parent interviews and staff training. Hired staff, monitored staff performance, and provided guidance. Maintained all records as required by Maryland State Child Care regulations.

Frederick County, Maryland Board of Education

- 1980 – 1982, 5/6th Grade Teacher
- 1978 – 1980, Instructional Aide

- 1976 – 1978, Long-term Substitute
 - Planned educational program for 5th and 6th grade students, graded papers, conducted parent conference, supervised and provided oversight of students in operation of school store. Implemented educational program in conjunction with Maryland State requirements.

Cleveland County, North Carolina Board of Education

- 1976, 7-9th Grade Teacher (English, Math, Art)
- 1974 – 1976, 4th Grade Teacher

Matthew Vincent Koerner

(b)(6)

CTE PROGRAM AND INFORMATION SPECIALIST

Program coordinator and information specialist with extensive experience in organizational management, conference planning and logistics and designing, developing, testing and supporting integrated data collection and reporting systems. Program content expertise in leadership and career technology education with an emphasis in environmental, agricultural, and natural resources and information technology. Proficient in all Microsoft Office with expertise in Excel and Access. Experience with Oracle OBIEE Dashboards and Answers.

EXPERIENCE

MARYLAND STATE DEPARTMENT OF EDUCATION, Baltimore, MD
CTE Accountability Specialist

6/2010 – Present

Manage internal Career Technology Education (CTE) enrollment and performance measurement system to provide information necessary for increased organizational effectiveness. Conduct data collection, analysis and reporting activities to support secondary and post-secondary CTE performance improvement initiatives and provide technical assistance to local school systems and community college staff in the same.

Key responsibilities and initiatives:

- Designed and developed information management system incorporating student enrollment and outcome data to meet various regular and specialized reporting needs. System integrates unit record level secondary CTE enrollment, post-secondary CTE enrollment, outcomes, and workforce and college placement data into a single unified structure across multiple years.
- Perform administrative record exchange and reintegration of results from the Department of Labor and Maryland Higher Education Commission for workforce and college placement data of CTE students.
- Provide technical assistance to local school systems and community colleges regarding data collection, analysis and use to drive program decisions and improvement.
- Serve as technical consultant and content specialist in the initial phase of CTE data integration into the Maryland Longitudinal Data System (MLDS).
- Coordinate the administration of pre-graduation and work-based learning direct student surveys with 51,000 and 7,000 responses respectively. Developed integrated collection and reporting systems and coordinated integration of pre-graduation survey data into the MLDS.
- Directly support the improvement and expansion of Environmental, Agricultural, and Natural Resources programs and Information Technology programs across the state.

MARYLAND GROUP FACULTY PRACTICE, Baltimore, MD
Consultant

9/2011 – Present

Contracted to manage insurance billing and specialized business analytics for psychology group.

Key initiatives:

- Developed database to utilize data extracts from third-party claims processing firm to perform specialized business analysis and generate customized reports.

NATIONAL FFA ORGANIZATION, Indianapolis, IN
Consultant

11/2010 – 6/2011

Develop data collection and reporting system to meet specific grant accountability and specialized needs.

Key initiatives:

- Developed database to manage and report grant information and outcome data for Living2Serve rural youth development grant. All database functionality accessible through user-friendly drop-down filtering and button navigation.
- Developed excel based outcome data collection form with import functionality with the database.

Application: R372A120036

MARYLAND AGRICULTURE EDUCATION FOUNDATION, Havre DeGrace, MD 2/2002 - 6/2010
Maryland FFA Executive Director

Served as Executive Director of a Career Technology Student Organization with statewide membership of over 1,500 members and 5,000 students with an annual budget of approximately \$250K. Lead the organization through a transition from direct state employee staff support to a partnership between the Maryland State Department of Education and the Maryland Agricultural Education Foundation.

Key responsibilities and initiatives:

- Managed an annual organizational budget of \$250K and the associated planning and implementation of eight annual conferences and the leadership development and statewide outreach of student interns.
- Developed a unified database to handle registration a reporting for student membership and five different events across multiple years.
- Developed Excel based registration form, with embedded student information and usable for all events, integrated with the database with import functionality to remove need for duplicative data entry. Registration confirmation and invoicing included in form functions.
- Supported improvement and expansion of student leadership and career development programs and school-based agriculture education.

EDUCATION & TRAINING

UNIVERSITY of MARYLAND COLLEGE PARK, College Park, MD
Bachelor of Science, Major in Animal Sciences

5/2004

PROFESSIONAL ORGANIZATIONS

National Association of Supervisors for Agricultural Education

Former member

PRESENTATIONS/ PUBLICATIONS

SLDS P-20W Best Practices Conference (US Dept. Ed.)

11/2011

Panelist- SLDS & CTE (Challenges, Lessons Learned, Progress, Best Practices, Valuable Reports)

National Sigma Alpha Conference

10/2011

Presenter- Integrity in Leadership

REFERENCES

Available upon request

Biographical Note for Phil Koshkin

Phil Koshkin is Chief of Research and Evaluation in the Maryland State Department of Education's Division of Early Childhood Development (DECD). In this capacity, Mr. Koshkin's responsibilities include program research and analysis, regulatory affairs, and operational quality assurance. He is also extensively involved in the application of information technology to Division activities. Currently, Mr. Koshkin is DECD's project coordinator for the development of an early childhood data warehouse as part of MSDE's longitudinal data system. He led the planning and development of DECD's Web-based electronic inspections system, and he serves as the Division's webmaster. Mr. Koshkin has more than 25 years of experience in program planning, development, and assessment in a variety of contexts, including child care licensing, developmental disabilities, mental health, addictions treatment, and adult probations.

ANGELA M. LAGDAMEO

(b)(6)

EXPERIENCE

Senior Analyst, Governor's Office of Policy

1/2011-Present

- Write all education policy analyses and briefings on the Common Core; Science, Technology, Engineering, and Math (STEM); longitudinal data systems and data management; college and career readiness; college completion to Director of Policy and Governor
- Provide analyses of student progress on statewide and national assessments, including Maryland State Assessment (MSA), NAEP, NAEP TUDA, AP, PSAT, SAT
- Provide P-12, higher education, and workforce analyses and respond to federal inquiries on State policy issues to the National Governor's Association
- Prepare analysis and briefings to the Governor and staff the Maryland Longitudinal Data System Governing Board and Governor's P-20 Leadership Council of Maryland
- Analyze data, write briefings, and manage StudentStat, the Governor's performance-based management system of the State's education and workforce agencies
- Write education analyses for the Press Office

Special Assistant, Governor's Office of Community Initiatives

8/2008- 1/201, Annapolis, MD

- Authored, edited, and managed implementation of statewide immigration report: *A Fresh Start: Renewing Immigrant Integration for a Stronger Maryland*, resulting in a full-time hire for workforce initiatives, a statewide language access plan, and increased collaboration on citizenship initiatives
- Liaised with all Montgomery County and Prince George's County Mayors and represented the Governor to Montgomery County and Prince George's County Maryland Municipal League
- Managed all advance, briefings, correspondence with local elected delegations for Governor's Capital for a Day—a monthly Cabinet outreach to local departments and agencies
- Created State database of over 2,000 faith-based institutions to increase programming and partnership on foreclosure mediation

Editor, Diversity Briefing Book

8/2007-5/2008, Cambridge, MA

- Wrote and instituted permanent documentation of diversity initiatives on curriculum development, faculty recruitment, and student recruitment and retention in collaboration with administration, faculty, and students at John F. Kennedy School of Government

Business Communications Consultant, Harvard Square Academy

11/2007, Seoul, Korea

- Trained 4 CEOs and Senior Executives of Samsung, Namkwang, Aldef, and other leading Asian engineering firms and telecom companies in international business etiquette and verbal and written presentation skills

Coordinator, America Reads*America Counts

12/2005-6/2006, College Park, MD

- Managed, developed, and evaluated the America Reads, America Counts, Partners in Print, and First Book programs, increasing partnership from 10 to 15 elementary schools to increase math and literacy outcomes in the County
- Recruited, hired, and trained undergraduate mentor employees; increased program capacity by 30% (from 60 to 87 students) in one semester

Special Education High School Teacher, Curriculum Developer, Teach for America

9/2002-6/2004, San Jose, CA

- Instructed, advised, mentored, tested, and case-managed 32 students per year; home-schooled 2 students in a Title 1 school
- Created a differentiated, standards-based English curriculum that narrowed achievement gap at average of two grade levels per student

EDUCATION

8/2006-5/2008

Cambridge,
MA

Harvard University

Master of Public Policy from the Kennedy School of Government

Coursework: Strategic and Financial Management; Empirical Quantitative Analysis; Conflict Resolution and Multiparty Negotiations

1/1998-5/2002

College Park,
MD

University of Maryland

Bachelor of Arts degree in English

Phi Beta Kappa; Women's Studies Certificate; Honors Certificate

LEADERSHIP

Present

Director, Maryland Democratic Party Asian American/Pacific Islander (AAPI) Leadership Council

- Devised organizational structure for AAPI outreach; manage 5 Chairs, 5 Elected Official Honorary Chairs, 200 Council Members; oversee and edit all publications and social media outlets; established leadership development program for 7 college students

8/2008- 3/2011

Board Member, University of Maryland Alumni Association Board of Governors

4/2001-4/2002

President, Student Government Association, University of Maryland

- Elected as first Asian American female to represent the Student Body
- Oversaw a \$1.5 million student activities fees budget for 25,000 undergraduates

- Successfully implemented tax-free text book policy
- Managed 7 Executives, 42 Legislators, 4 Arms, 6 Committees, Student Legal Aid Attorney
- Implemented University policy on Sportsmanship in partnership with Administration, faculty, Athletic Director, local police, and Senate

AWARDS AND RECOGNITIONS

- 11/2011 *Dakila Award for Public Service*, Philippine American Charities Foundation
- 10/06-10/07 *Women and Public Policy Fellow*, “From Harvard Square to the Oval Office” Fellowship
- 4/2010 *Outstanding Alumnus*, University of Maryland’s Asian American Student Union
- Recognized for sustained mentorship, community leadership, and professional achievement
- 4/2003 *Inspirational Teacher Award*, Independence High School
- Voted by students for relentless commitment to students as a teacher, soccer coach, and class advisor
- 4/01-4/02 Leadership Awards, University of Maryland
- Received 5 most prestigious university leadership awards:
 - Wilson H. Elkins Award for Outstanding Senior
 - Vera Cruz-Kochiyama Award for the establishment of the Asian American Studies Program
 - Adele H. Stamp Award for service
 - Student Government Association Outstanding Executive Award
 - William E. Kirwan Award for Outstanding Junior
- 8/2000 *The Washington Post*, “A Multicultural Coup at U-MD”
- Featured in article about the establishment of the UM Asian American Studies Program

PUBLIC SPEAKING, TEACHING, AND SERVICE

- 4/2009 *Keynote Speaker*, University of Maryland Student Leadership Conference
- 3/2005 *Advisor*, Alternative Spring Break, University of Maryland
- Facilitated leadership development and supervised 40 students in New Orleans for Hurricane Katrina disaster relief efforts
- 9/2005-5/2006 *Instructor*, Department of Counseling and Personnel Services, University of Maryland
- EDCP 386 “Experiential Learning,” and EDCP 310, “Peer Counseling and Theory”
- 11/2004-1/2005 *Outreach Missionary*, Youth with a Mission International Ministry
- Served in feeding programs of orphanages, AIDS organizations, tribes in Ethiopia

Robert M. London

(b)(6)

Work Experience

Employer: Matrix Technologies and Systems Inc, Maryland, 12/2009-Present
Roles: PMO/Technical PM Consultant

Current Client: Maryland State Department of Education 12/09-present

Roles: Director of Solutions Architecture/PMO for PK12-LDS and P20-LDS
Federal Grant Director for MD 2009 SLDS Grant
PMO Program Director for DAADs Race to the Top projects

Responsibilities:

- Technical and functional solutions architect for Maryland's \$250 million dollar Race to the Top grant, and Solutions Architecture PMO overseeing over 12 projects with budgets valued at \$20 million. PMO responsibilities included; hiring project managers, project strategies, technical architectures, project management, functional SME, budgets, advising agency executives on strategies, and implementing project management standards.
- P20 and K12 Longitudinal data systems technical project manager and Federal Grant Director responsible for overseeing development of \$10 million dollars to develop a P20 and K12 hybrid data warehouses, ODS, and BI reporting systems with responsibilities for 15 development and business analyst consultants in an Oracle RDBMs11g, Portal 11g, Oracle Spatial, Oracle IDM Security, and OBIEE 11g environment. Responsibilities included procurements, budget management, staffing assignments, stakeholder management and coordinating over 15 stakeholder groups, system design, and system data center operations for the LDS systems.
- StateStat Development Manager for Maryland Governor's Office and technical solutions architect responsible for translating the proof-of-concept StateStat system into a production system for 15 state agencies.
- Technical and Functional Solutions Architect for up-coming USDE \$4 million dollar SLDS grant competition.

Client: Confidential, Madison, WI 9/2009 to 11/2009

Role: Independent Consultant - Business Analyst

Client: Aurora Health Care, WI. 10/08 to 9/09

Role: Independent Consultant PMO Program Manager

Client: Oracle Corporation 4/2008-9/2008

Role: Subcontractor – Consultant

Clients for Oracle:

District of Columbia, Dept. of Education/ Washington D. C. 7/2008 to 9/2008
Role: Consultant - Technical Architect and Quality Assurance Advisor

Wells Fargo, San Francisco, CA 4/2008 to 7/2008
Role: Consultant - Project Manager/BI Business Analyst
Responsibilities: Project Manager for rapid implementation of PeopleSoft EPM Data Marts for Spend and Procurement with PeopleSoft financials.

Samuel Merritt College, Oakland, CA 7/2008 to 9/2008
Role: Consultant - Business Analyst
Responsibilities: Performed requirements analysis and design for higher education financials and student performance dashboard and scorecard business intelligence reporting solutions, and prepared project requirements

Cache Creek Casino Resort, Cache Creek, CA 5/2008 to 8/2008.
Role: Consultant - Business Intelligence Reporting Business Analyst

Responsibilities: Prepared business intelligence requirements and technical solution for porting SQL Server 2000 customer activity cubes to an Oracle database with OBIEE business intelligence dashboards and ad hoc analytical reports.

State of Utah, Dept. of Ed/State of North Dakota, North Dakota 5/2008 to 8/2008
Role: Consultant - Business Intelligence Business Analyst and Architect
Responsibilities: Prepared data warehousing requirements and design specifications for K12 longitudinal data warehouse and business intelligence reporting system, and participated in preparing solutions proposal

Client: Pillar Induction, Milwaukee, WI 8/2007 to 1/2008
Role: Independent Consultant ERP Project Manager

Client: State of Wisconsin - Dept. of Public Instruction, Madison, WI 1/2006 to 8/2007
Role: Independent Consultant - Technical Manager and Business Intelligence Business Analyst

Client: State of Wisconsin, Dept. of Enterprise Technology, Madison, WI. 10/2005 to 2/2007
Role: Independent Consultant - Portal Business Analyst

Client: SC2 Manufacturing, Iowa 3/2005 to 9/2005
Role: Independent Consultant - ERP Project Manager

Graduate Student, University of Wisconsin-Madison, Dept. of Rehabilitation Psychology, Madison, WI 9/2004 to 5/2006

**Veterans Administration Hospital - Madison
University of Wisconsin Hospitals - Diabetes Clinic**

Client: Chamberlain Research, 2/2004-10/2004
Role: Independent Consultant - Client Proposal Sales Manager

Client: Fair Isaacs and Fleet Insurance\Ncell Systems, Minneapolis, MN 4/2003 to 1/2004
Role: Independent Consultant - Account Executive

Client: Strong Financials\Isthmus Group Milwaukee, WI. 11/2002 to 3/2003
Role: Independent Consultant - Account Executive/Solutions Architect

Client: Swiss Colony, Monroe, WI. 3/2002 to 7/2002DWH
Role: Independent Consultant - Solutions Architect/Project Manager

Client: Secure Pipe, Madison, WI 7/2001 to 1/2002
Role: Independent Consultant - Technical Services Sales Manager

Client: Goliath Networks, Madison, WI 4/1999 to 6/2001
Role: Consultant - Sun/Oracle Server and Services Practice Manager

Employer: Oracle Corporation, Chicago, IL
Role: Technical Consulting Manager, Oracle Corporation, Chicago, IL 11/1994 - 4/1999
Clients: Fortune 100 and Mid-Market Clients

Employer: Household International, Northbrook, IL 1993 - 1994
Role: Operations and Project Development AVP

Employer: Mercer/Marsh & McLennan, Deerfield, IL 1991 - 1993
Role: Operations and Project Development Manager

Employer: Physicians Insurance Company of Wisconsin, Madison, WI 1987 - 1991
Role: Operations and Project Development AVP

Employer: Telephone and Data Systems, Madison, WI 1984 - 1987

Role: Systems Manager

Employer: AT&T/Bell Laboratories, NJ 1977 – 1984

Role: Business Analyst/Programmer/Member of Technical Staff

Education

- MS – University of Wisconsin-Madison, Rehabilitation Psychology (June, 2012)
- MSIE - University of Wisconsin-Madison, Engineering (Business/Process Analysis and Computer Design)
- BS - University of Wisconsin-Madison, Physiological Psychology

MAUREEN T. McAFEE

(b)(6)

EDUCATION & TRAINING:

**Cisco Certified Computer Network Associate (CCNA),
Cisco Certified Academy Instructor (CCAI),
Cisco Computer Networking Academy, Baltimore, MD, 2003.**

**Graduate Studies in English (Masters Equivalency),
Morgan State University, Baltimore, MD, 1995-2000.**

**Bachelor of Science, English; Minor, Theatre Arts /Communication,
Secondary Education Certification, Towson University, Towson, MD, 1994.**

PROFESSIONAL EXPERIENCE:

MARYLAND STATE DEPARTMENT OF EDUCATION, Baltimore, MD 2004-present
Information Technology Coordinator, Juvenile Services Education Program,
Division of Career and College Readiness

Job Highlights:

- *Plans, organizes, and directs all technology and instructional technology activities of MSDE's Juvenile Services Education Program.*
- *Provides leadership and technical services in the information technology area to include hardware and software training, support, and budgeting.*

BALTIMORE COUNTY PUBLIC SCHOOLS (BCPS), Baltimore, MD, 1996-2004:
Computer Networking Academy Instructor/English Teacher/Technology Specialist
Towson High School, 1998-2004.

Yearbook Adviser, Towson High School, 1999-2001.

English Teacher/SAT Preparation, Milford Mill Academy, 1996-1998.

**Curriculum Writer/Item Writer for MD High School Assessments, Summers 1998,
2000, 2002.**

**Co-writer for School-Career Transitions and Technology Integration into content
areas, Summer 2003**

**Supervisor and Technician for school-based computer re-imaging, repairing, and
reorganizing,**

BCPS, Summer 2003

Job Highlights:

- Taught Computer and Advanced Networking to grades 11, 12.
- Support and assist technology liaison and tech team with maintaining, upgrading, installing software, troubleshooting, and repairing, media and networking equipment. Conducted technology integration workshops for teachers.
- Taught introductory computer and Internet course through adult education.

- Served as Yearbook Adviser. Handled budget, marketing, desktop publishing, writing, editing layout.
- Taught high school English, Journalism, and SAT preparation.
- Taught university graduate seminar on technology integration in the classrooms.
- Acted as lead writer for Technology in Maryland Schools (TIMS) grant.
- Wrote assessments for MD High School Assessment practice.
- Participated in grant-supported initiatives to incorporate real-world scenarios in the workplace into lesson plans across the curriculum.

ADDITIONAL WORK HISTORY:

Representative, Faculty Council, Baltimore County Public Schools, Fall 2003-present

Guest Instructor, University of Maryland at Baltimore County, Winter 2001.

Teacher, Community College of Baltimore County, Fall 2000.

Senior Customer Account Representative, Maryland National Bank, 1984-1990

COMMUNITY ACTIVITIES:

President, Vice President, Forestview Homeowners' Association, Baltimore, MD, 1999-2001.

Patricia M. Mikos

(b)(6)

Major Accomplishments

- Development and implementation of CTE Pathway Programs in alignment with the revised *Policies and Procedures for the Development and Continuous Improvement of Career Technology Education (CTE) Programs and the Maryland Career Cluster Frameworks*
- Coordination of the design and implementation of an on-line data submission and reporting process in alignment with CTE performance measures and accountability system
- Expansion of CTE accountability reporting and alignment to new federal requirements, including Perkins IV, NCLB and EDEN
- Member of the National Center for Education Statistic (NCES) CTE Statistics Technical Review Panel and active member of the OVAE Next Steps Workgroup, providing input to accountability systems and reporting for CTE students
- Development and implementation of *MSDE Policies and Procedures Career Technology Student Organizations (CTSO)*
- Revision of grant applications, reporting requirements and professional development for Tech Prep consortia leading to targeted program improvements and increased collaboration between secondary and postsecondary CTE programs
- Successful supervision of professional and associate staff as well as volunteers to accomplish organizational goals, including event management, grant management, reporting requirements and the implementation of school-wide initiatives and CTE program improvement

Work Experience

Maryland State Department of Education -- Baltimore, MD
Division of Career and College Readiness (DCCR)
Program Manager, Student and Assessment Services Branch

10/05 -present

- Provide leadership and coordination of Maryland Career Technology Education (CTE) programs at the Secondary and Postsecondary level
- Coordinate federal accountability reporting for secondary and postsecondary CTE students;
- Coordinate state and local data collection and reporting for the MSDE Pre-Graduate Survey and MSDE Work-Based Learning Survey
- Conduct Office of Civil Rights (OCR) on-site visits to ensure compliance per the OCR Methods of Administration requirements
- Provide oversight and coordination for five (5) Career Technology Student Organizations

Education Program Specialist II, Career Technology Education
Lead Specialist in the CTE-Instructional Branch, DCTAL

7/02 -10/05

- Provide leadership and coordination of CTE Pathway Program development and implementation
- Coordinate grants and technical assistance for Tech Prep and the *HSTW/MMGW* initiatives
- Supervise staff work in support of Technology Education and Family and Consumer Sciences
- Provide direct technical assistance to community colleges, local school systems and workforce development partners in the design and delivery of Career Clusters and CTE Pathway Programs

Patricia M. Mikos

(b)(6)

Work Experience (cont.)

Educational Program Specialist II, Career Technology Education 301-702

Lead Specialist in the CTE-Student and Assessment Services Branch, DCTAL

- Assist in the design and implementation of an on-line data submission and reporting process in alignment with CTE performance measures and accountability system
- Coordinate work related to CTE Pathway Program development
- Provide leadership and support for secondary and postsecondary data management
- Supervise staff work in support of career technology student organizations (CTSO)
- Conduct site visits to meet Office of Civil Rights (OCR) reporting requirements

Staff Specialist III, Career Technology Education 997-301

- Provide technical assistance to local school systems, postsecondary institutions and business partners in developing, implementing and enhancing career technology education programs
- Assist central office staff, high schools, business partners and community colleges implementing comprehensive school reform models and secondary and postsecondary CTE programs
- Conduct *HSTW* Technical Assistance visits and data analysis in support of data-driven decision-making by high school leadership teams

Southern Regional Education Board -- Atlanta, GA

Director for Staff Development for the *High Schools That Work (HSTW)* Program 1294-897

- Design and implemented a professional development series that included workshops, in-service training, grant opportunities and publications
- Direct all aspects of the National *HSTW* Annual Staff Development Conference for more than 5,000 educators

Research Assistant for the *High Schools That Work (HSTW)* Program 594-1294

- Assist in analysis and reporting on data from more than 350 high schools implementing a model of high school reform, including reports based on data including student surveys, achievement scores, transcript files and teacher surveys
- Conducting qualitative data collection through on-site evaluations and technical assistance in high schools throughout the *HSTW* network

Emory University -- Atlanta, GA

Graduate Assistant/Graduate Student Teacher in the Department of Sociology 889-594

- Assist faculty in research and teaching while a graduate student at Emory University
- Research topics including educational funding, CTE, and workforce development
- Teach two undergraduate courses in Sociology--Sociology of Education and Social Problems

Related Training

System Source Learning Centers -- Microsoft Office Excel (Intermediate and Advanced) 6/06
Baltimore and Columbia, MD

Fellows Program -- National Center for Educational Statistics (NCES) 5/01
US Department of Education, Office of Educational Research and Improvement (OERI)

Patricia M. Mikos

(b)(6)

Related Training (Cont.)

Facilitative Leadership. Interaction Associates Baltimore, MD	3/99
DACUM Occupational Analysis and Curriculum Planning Process Community Colleges of Baltimore County, DACUM Resource Center	5/98

Major Presentations and Publication

Presentations on Redesign of CTE, CTE Programs of Study, and CTE Accountability:

- Maryland Association of Counties, Annapolis, MD 9/09
- National Career Clusters Institute, Phoenix, AZ 6/06
- National Career Clusters Institute, Charlotte, SC 6/04
- National *High Schools That Work* Conference, Nashville, TN 7/03
- State's Career Clusters Meeting, Scottsdale, AZ 9/02

Blended Instruction Training and Workshops:

- National School-To-Work Conference, Washington, DC 10/00
- Governor's Academy for Mathematics and Science, Towson, MD 7/00
- National School-To-Work Career Majors Institute, San Diego, CA 8/99
- National Transition Alliance for Youth with Disabilities, Washington, DC 5/99

Bottoms, Gene and Pat Mikos. 1995. *School and Classroom Practices That Advance the Performance of Career-Bound High School Students. A Report on Improving Student Learning*, SREB

Education

University of Baltimore--Masters in Public Administration (MPA)	current
Georgia State University--Graduate Courses in Sociology and Research	9/96 - 7/97
Emory University--Graduate Courses in Sociology and Research	8/89 - 5/94
Hood College--BA in Sociology/Concentration in Biology	8/84 - 5/88

(b)(6)

WILLIAM D. NOTTAGE

EDUCATION

UNIVERSITY OF MARYLAND BALTIMORE COUNTY; Baltimore, MD
Master of Science in Information Systems, May 2011

STATE UNIVERSITY COLLEGE AT BUFFALO, Buffalo, New York
Master of Science, Student Personnel Administration; May 2001

UNIVERSITY AT BUFFALO, Buffalo, New York
Bachelor of Arts, Psychology; May 1999

TECHNICAL SKILLS

Languages/Tools: Microsoft Office, PeopleSoft, JAVA, HTML, XML, Eclipse, SPSS, Photoshop, Wireshark, TCP/IP Protocol

Database: MySQL, Access 2003, Microsoft Server 2008

Environments: Microsoft 2003/2000, Mac OS

EXPERIENCE

Career Technology Specialist, Division of Career and College Readiness 8/10-Present
Maryland State Department of Education, Baltimore, MD

- Create rigorous Programs of Study in IT/Business and coordinate professional development training for teachers while serving on two Career Cluster Teams
- Collaborate with business partners and educators in the cyber security community to close the workforce gap
- Research and disseminate all cyber security related information to Career Technology educators
- Provide leadership and technical assistance to Career Technology Student Organizations DECA and Future Business Leaders of America to ensure increased district/school engagement and student enrollment
- Negotiate with third party software vendors to establish cost saving statewide license agreements
- Analyze performance and quality improvement data to support decision making

Associate Director - Technology, The Career Center 8/04-8/10

University of Baltimore, Baltimore, MD

- Managed the implementation of technology services to diverse users
- Spearheaded the department database conversion from eRecruiting to Symplicity tool within office required deadline
- Acted as a liaison between clients, vendors and technical groups, using superior communication skills to elicit, document, analyze and validate requirements
- Promoted/directed process improvement activities and training of clients, peers and students
- Utilized multiple techniques while gathering system requirements from clients/stakeholders
- Worked with the development and testing team to create and refine career systems
- Conducted PeopleSoft data queries and scrubbed data to meet office/system needs.
- Created and assisted in developing “acceptable use” policy, standards and guidelines
- Researched and analyzed student outcomes data and office programs/services
- Collaborated with the Office of Technology to establish workgroups in order to provide appropriate authorization to share files and resources
- Generated written reports on student success, annual reports and grants to enhance resources
- Strengthened leadership and teamwork skills while supervising staff and executing strategic plans
- Facilitated training workshops and provided career counseling/advising to clients

Career Counselor, 7/01-7/04

University of Michigan, Ann Arbor, MI

- Established and maintained strong relationships with tier 1 companies recruiting at Michigan.
- Enhanced creativity by designing and implementing 20-30 programs, trainings and presentations
- Evaluated office programs with staff to ensure services support office mission, goals and principles.
- Created, filmed, edited and upload “online line video stream”, a tool utilized for career exploration.

Data Analyst Student Intern, Cooperative Education and Development Center 1/01-5/01

Daemen College, Buffalo, NY

- Developed and maintained a statistical database system for graduate follow-up survey.
- Provided arrangements and maintained employer database for Office Job Fair.
- Participated in conducting workshops and presentations on various career topics.

UMBC PROJECTS

Management Information Systems, 8/08-5/11

- Utilized the System Design Life Cycle (Spiral Model) to create a web based art dealership system
- Worked in a team of 5 to plan, design, program, test and document a fully operable banking database system
- Utilize Eclipse software and Java Programming language to create an Employee Records Management and Search system
- Conducted qualitative research analysis on Network Security in Higher Education
- Analyzed the requirements and challenges in designing a P-20 Longitudinal Data System

PROFESSIONAL DEVELOPMENT

- Cisco Systems CCNA Security Training – August, 2011
- Attended STATS- DC Data Conference – July, 2011

Ben Hill Passmore

EDUCATION:

Ph.D. (2004)	Southern Methodist University	Anthropology
M.A. (1992)	New Mexico State University	Anthropology
B.A. (1988)	The University of Texas at El Paso	Psychology

PROFESSIONAL EXPERIENCE:

Assistant Vice Chancellor (06/10-present)

Director of Policy Research & Analysis (06/04-05/10)

Coordinator of Policy Research & Analysis (09/03-05/04) – *The University System of Maryland*

Perform research and analysis of educational issues affecting the University System of Maryland (USM). Staff state and national committees and projects for the Chancellor and Vice Chancellor, including three statewide groups on economic competitiveness. Conduct special studies on varied subjects including: STEM and Healthcare workforce, teacher preparation, enrollment change, efficiency and effectiveness initiatives, articulation with community colleges, and budget-related issues. Represent the USM in System-wide committees and on various individual campuses within the System.

Assistant Director (06/00-05/02) – *The University of Texas at El Paso, Center for Institutional Evaluation, Research & Planning*

Supervised university reporting and outcomes assessment of student learning functions. Revised university reporting and public information architecture. Oversaw reporting on grant projects, including numerous minority-oriented STEM grants. Organized and helped to organize a variety of research projects including: retention and graduation studies, studies of developmental programs and workforce analyses. Managed university reports to state and federal agencies.

Research Assistant (10/94-05/97) – *University of Texas at El Paso, Office of Institutional Studies*

Acted as “point man” on large grant evaluation projects including the Model Institutions for Excellence (MIE) program. Assessed evaluation and accreditation needs of client departments and projects. Organized and helped to organize a variety of research projects.

Social Science/Humanities Research Associate II (08/92-10/94) – *The University of Texas at El Paso, Office of Institutional Studies*

Organized and helped to organize research projects. Designed and implemented surveys, sampling plans, focus group research. Prepared the reporting and evaluation plan and reports for the UT-System Alliance for Minority Participation program.

TEACHING EXPERIENCE:

- University of Maryland University College (Adjunct Associate Professor, 01/08 - present)
- University of North Texas, Department of Anthropology (Lecturer, 01/00-05/00)
- Baylor University, Department of Sociology and Anthropology (Lecturer, 01/98-05/99)
- University of Texas at El Paso, Dept. of Sociology & Anthropology (Lecturer, 08/94-05/97)
- New Mexico State University, Dept. of Sociology & Anthropology (Lecturer, 01/93-05/93)
- El Paso Community College District, Division of Social Science (Lecturer, 08/93-05/97)

SELECTED PROJECT / COMMITTEE WORK:

- Complete College America, Maryland State Team (2011)
 - Coppin State University Study Team (2011)*
 - Maryland State Longitudinal Data Center, Interagency Work Group (2010-2011)
 - USM Achievement Gap Delivery Team (2009-2011)
 - Governor Martin O'Malley's P-20 STEM Task Force, Maryland (2009)*
 - Maryland P-20 Task Force on State Longitudinal Data System (2009)
 - Lumina Making Opportunity Affordable Grant, Maryland State Team (2009)
 - Maryland State Plan for Post-Secondary Education Committee, Maryland Higher Education Commission (2009) Including: Economic Growth and Vitality Writing Group
 - USM Presidential Task Force on STEM Workforce (2008)*
 - Commission to Develop the Maryland Model for Funding Higher Education, Competitiveness and Workforce Working Group. (2007-2008)*
 - NASULGC Committee on Accountability for Student Outcomes (2006)*
 - Maryland Educational Data Network (2003, 2006)
 - USM Regional Center Data Collection and Standards Workgroup (2006)
 - Associate of Arts Transfer Degree Program Oversight Group (2006)
 - Universities at Shady Grove Evaluation and Assessment Committee (2005)
 - USM/MACC Joint Leadership Council Committee of University/Community College Articulation (2004-2007)
 - IPEDS Student Unit Record Feasibility Study Technical Review Panel, USDE (2004)
 - Maryland State Plan for Post-Secondary Education Committee, MHEC (2004)*
 - UT-El Paso Data Advisory Group for SCT Banner Migration (2000-2002)
 - UT-El Paso Web Advisory Group. (2000-01)
 - UT-El Paso Model Institutions for Excellence University-wide Committee (1994-1995)*
 - UT-System Alliance for Minority Participation, Evaluation Team (1993-1997, 2000-2002)
- * staff role

SELECTED LEGISLATIVE TESTIMONY:

- Testimony to the Maryland Senate Education, Health and Environmental Affairs Committee in support of Senate Bill 275 – “Maryland Longitudinal Data System.” 2010
- Testimony to the Maryland House of Delegates Ways and Means Committee in support of House Bill 467 – “Maryland Longitudinal Data System.” 2010
- Testimony to Maryland Senate Budget and Taxation Committee reporting actions taken following the Commission to Develop Maryland Model for Funding Higher Education. 2010

SELECTED PRESENTATIONS:

- “Transformation Transfer Templates: ‘More Juice for the Squeeze’” (with Nancy Shapiro, Jennifer Frank, Sue Blanshan, Clay Whitlow). Association of American Colleges and Universities Annual Meeting, Washington, D.C., 2010
- “Teacher training, Job Entry and Retention: Pilot Study Findings Interpreted in a Business Cycle Context” (with David Stevens, Treva Stack, Nancy Shaprio). International Conference of Education, Research & Innovation (ICERI), Madrid, Spain, 2009.

- “Teacher Retention, the Shifting Interstate Context and Professional Development Schools” (with David Stevens, Treva Stack, Nancy Shaprio). Association of Institutional Research, Seattle, Washington. 2008.
- “An Alignment System: The Feedback Loop for Expectations, Outcomes and Success in Transfer among Maryland Public Institutions of Higher Education.” Maryland Institute for Transfer Success, Baltimore, MD 2007.
- “New Dimensions in Transfer among Maryland Institutions of Higher Education” (with Gayle Fink and Barbara Ash). Maryland Institute for Transfer Success, Baltimore, MD 2006.
- “Characteristics of Statements of Learning Goals from Accredited Degree-Granting Colleges and Universities” (with Susan Racine Passmore and Donald Langenberg). Presented at: “Facing up and Moving Forward: Mobilizing a National Policy Capacity to Address Student Learning in Higher Education.” Racine, Wisconsin 2004.

SELECTED PUBLICATIONS:

- *Nd. The Tower: Power, Innovation and the American University in the Early 21st Century.* Book manuscript in preparation.
- *Nd. “Mixed Methodology Approaches to the Study of Workforce Development.”* Manuscript in preparation for *Research in Higher Education*.
- Forthcoming (*delayed*). *Honest Work after the Workers’ Paradise: Social Capital and the Workplace in the Late Transition Czech Republic.* Expected publication from Eastern European Monographs Series of Columbia University Press.
- *Under review.* “How Better Data Leads to Worse Decisions: Information Symmetry, Power Asymmetry and the New Data Systems.” Under review with Triarchy Press.
- *Under review.* “A Quiet Revolution: The New Data Systems and the Practicing Anthropologist.” Under review with *Practicing Anthropology*.
- 2008. “Effective and Efficient: Productivity, Industrial Discipline and Higher Education.” *Anthropology News*, Vol. 49 (1) (2008).
- 2006. “Book Review: Contesting Agriculture: Cooperativism and Privatization in the New Eastern Germany.” *Anthropology of Work Review*, Vol. 27(1).

PROFESSIONAL ORGANIZATIONS:

- Maryland Association for Institutional Research (2003- 2006)
Executive Committee, Segmental Representative (2004- 2006)
- Texas Association for Institutional Research (1992-1997, 2000-2002)
Manager, TAIR-L (1996-1997)
Evaluation Coordinator, TAIR Annual Conference (1996)
Association of University Technology Managers (2008-present)
- American Anthropological Association (1997-present)
- Society for the Anthropology of Work (2001- present)
- Society for the Anthropology of Europe (2001- present)
Secretary (2007-2009)
Contributing Editor, *Anthropology News* (2007-2009)
- Society for Applied Anthropology (2006-present)

SHREYA PILLAI
Consultant, Department of Labor, Licensing and Regulation, Maryland

(b)(6)

Shreya Pillai, a program manager and consultant with the Department of Labor, Licensing and Regulation, State of Maryland, is responsible for performance and management across the division of workforce and adult learning.

In addition, she is involved in coordinating and facilitating programs associated with recovery monies, the data quality initiative and the Longitudinal Data System. She is responsible for coordinating the writing of the new policy for the division, liaising with the Governor's Office on policy.

Trained in urban planning and public policy, Shreya has in the past worked with the World Bank, the Institute of Policy Studies (IPS), Johns Hopkins University, the Environmental Planning Collaborative (EPC) an advocacy non profit and the international consulting firm of Pannell Kerr Forster Consultants.

Shreya Pillai has a degree in architecture, Urban Planning from Texas A & M and Public Policy from Johns Hopkins University.

(b)(6)

Jena Valle Smith

Experience

2009-present Maryland State Department of Education Baltimore, Maryland

Training Approval Coordinator

- Provides administration and technical assistance for the Training Approval Program.
- Evaluate and approve statewide child care trainers to administer professional development.
- Evaluates and reviews training proposal and training curriculum for statewide approved training.
- Coordinates professional development and provides technical assistance to the Resource and Referral Network.
- Develops training curriculum in accordance with Credentialing and Licensing requirements.
- Managed Healthy Beginnings training development and implementation of Training of Trainers model.
- Participates on the Office of Child Care Staff Evaluation committee.
- Monitors approved trainers and training to ensure quality and alignment with State curriculums and higher education outcomes and indicators.
- Oversee the Training Voucher and Reimbursement Program.

2003-2009 Community Action Council of Howard Columbia, Maryland
County

Director of Education

- Oversee program operations of Head Start program.
- Ensure the program is in full compliance with all relevant Federal and State regulations.
- Responsible for fiscal oversight of the Head Start budget including Federal, State, and local grant funds.
- Maintain and analyze data through the annual self and community assessments, Program Information Report, and Head Start Mandated Outcomes Report.
- Facilitate collaborative partnerships with community organizations.
- Directly supervise component area coordinators.
- Agency representative on local and state advisory, steering committees, and MSDE Early Childhood Curriculum Project
- Prepare and submit refunding applications.
- Develop and monitor program and strategic plans.
- Seek and apply for grant funds

2003-2005

Education Coordinator

- Responsible for curriculum implementation and development.
- Coordinate training and technical assistance for 50 Head Start staff members.
- Evaluate staff on an annual basis.

- Develop and maintain staff training plans.
- Assist teaching staff with meeting Federal education and State credential mandates.
- Provide training for parents and staff.

2001-2003

Center Manager

- Oversee daily operations of licensed child care facility.
- Supervise 15 teaching staff.
- Complete staff observations and evaluations.
- Lead parent meetings.
- Assist with classroom management.
- Maintain State licensing and Federal child care requirements.

2003-present

Howard Community College

Columbia, Maryland

Adjunct Instructor

- Instructor for School Age Child Care
- Instructor for Infant and Toddler Programming
- Develop and implement a syllabus that is in compliance with objectives and procedures as mandated by Howard Community College

Education

1998-2000

Manhattan College

Bronx, New York

Master of Education, Administration and Supervision

- Magna Cum Laude, Kappa Delta Phi

1992-1996

Springfield College

Springfield, MA

Bachelor of Art, Art Therapy

References are available on request.

Treva Stack
Researcher/Statistician
The Jacob France Institute
Merrick School of Business
University of Baltimore

B.A. Wake Forest University, History/Psychology
M.S. University of Baltimore, Industrial/Organizational Psychology

1998-current **Researcher/Statistician, The Jacob France Institute (JFI)**

- Conducts various education/economic research studies and outcome evaluations using advanced statistical methods
- Develops appropriate statistical methodology and data analysis for projects
- Formulates new ideas for research designs and reports
- Utilizes the UNIX system and writes programs in SAS
- Oversees the secure transmission of data into JFI
- Uses statistically valid methods to automate the validation of data for research purposes
- Generates data reports and uses graphical software packages to present data
- Oversees creation, accuracy, and maintenance of data dictionaries
- Generates both oral and written research reports
- Serves as data contact for various state and local education agencies, including the Maryland State Department of Education (MSDE), the Maryland Higher Education Commission (MHEC), the University System of Maryland (USM), the Maryland Association of Community Colleges (MACC), Baltimore City Public Schools, Baltimore County Public Schools, Cecil County Public Schools, Montgomery County Public Schools, and the Office of the State Superintendent of Education in Washington, DC.
- Other affiliations include the Maryland Department of Labor, Licensing, and Regulation (DLLR), the Governor's Workforce Investment Board (GWIB), the Mayor's Office of Employment Development (MOED), the Maryland State Youth Council, the Abell Foundation, the Urban Institute, the U.S. Department of Education, and the U.S. Department of Labor.

Projects

Technology Education in Baltimore City Public Schools

With funding provided by the Abell Foundation, JFI examined BCPSS's response to MSDE's technology education mandate. In the fall of 2007, a new online curriculum was implemented that conforms to MSDE's Voluntary State Curriculum. Field observation took place both in Baltimore City and in Montgomery County, a site determined to be a "leader" in technology education. An examination of technology education practices in other US States as well as internationally was also included.

Report to USDOE/Perkins Measures

JFI provides annual assistance to MSDE's Division of Career and College Readiness in completing their Consolidated Annual Report (CAR). Specifically, employment matches for both CTE completers and Adult Education completers are generated.

JFI has recently contracted with the **Office of the State Superintendent of Education in Washington, DC** to provide the same assistance with the CAR for their CTE completers.

Cecil County Public Schools

JFI worked with Cecil County Public Schools, Cecil College, and the Department of Economic Development, Cecil County Government, to longitudinally track a 2002 cohort of Cecil County Public School graduates into the workforce and higher education from 2002-2008.

Baltimore County Public Schools

JFI has entered into a contract to provide Baltimore County Public Schools with employment and industry affiliation of their graduates.

Lumina Foundation/University System of Maryland: Making Opportunity Affordable Project
As the result of a grant from the Lumina Foundation, JFI is working with the USM as they develop innovative strategies in key policy areas that would promote cost-saving methods of delivering high-quality education to greater numbers of students. JFI will provide research assistance and wage record matching for USM graduates.

Maryland Association of Community Colleges (MACC)

JFI provides assistance to MACC with a performance indicator required by the Maryland Higher Education Commission (MHEC). Matches of both degree and certificate community college completers are matched to the Maryland UI Wage records, as well as to wage records from surrounding states and those employed by the federal government.

Longitudinal earnings profiles one year prior and 3 years after graduation are generated and distributed to each institution on an annual basis. Additional research is provided by examining earnings profiles by various demographic indicators.

Teacher Retention: A Comparison of Maryland Professional Development Schools (PDS) Program Graduates with Recipients of Maryland Certification Through Other Qualifying Paths
Data on education graduates from 2001-2006 was provided to JFI by all University System of Maryland (USM) institutions, both undergraduate and graduate. USM is seeking to examine K-12 teacher retention in PDS as well as non-PDS graduates. JFI is in the process of matching graduates to the Maryland UI Wage records, as well as regional, surrounding states wage records and federal employment in order to determine their career paths.

Anatomy of a One-Stop Career Center

The purpose of this study was to describe and map the arrival, internal processing, and destination flows of customers throughout a one-stop career center. Baltimore's Eastside Career Center was

chosen as an inner city urban example, and two additional career centers were chosen in central Missouri; one representing an isolated urban center location, the other representing a rural/seasonal employment center location. The research methodology included a flow analysis, process analysis, ethnographic analysis, spatial analysis, historical analysis, and data analysis.

1995-1998 *Specialist, Research and Evaluation, MSDE*

- Assisted with the compilation of the Maryland School Performance Report Card
- Served as liaison for local education agencies in the transfer of data to MSDE
- Used software applications to code, modify and run programs to extract and present data from large databases, including SAS and SPSS
- Coordinated projects from research design, data collection, data analyses, interpretation/conclusions, and final written/verbal reports
- Conducted survey research, including design and validation
- Responsible for the management of large databases, as well as confidential student level data
- Analyzed and reported longitudinal data trends, as well as program impact
- Responded to data requests from MSDE staff, local education agencies, the State Legislature, national education research groups, the general public, and the media
- Research/evaluation consultant to MSDE Divisions, including Special Education, Instruction, Career and College Readiness, and Technology/Library Media
- Provided professional development to local education agencies regarding data quality
- Analyzed data relating to various assessments, including MSA, HSA, SAT, AP, NAEP, CTBS, TIMS and PISA

1993-1995 *Program Evaluator, American Red Cross National Headquarters*

Responsible for the design and implementation and coordination of several complex, multi-site research and evaluation projects focused on measurements of effectiveness and impact in the field of public health.

1992-1993 *Research Analyst, Department of Justice, Federal Bureau of Prisons*

Designed and conducted systematic research studies through the use of computer programming and statistical analyses. Managed projects in federal sites across the U.S., and utilized confidential employee databases (required a federal security clearance).

David Stevens

**Director of the Jacob France Institute (JFI) and
Research Professor of Economics at the University of Baltimore**

David has been conducting research and evaluation studies using linked administrative databases for more than four decades. David has been project director of the multi-state consortium of state partners known as the Administrative Data Research and Evaluation (ADARE) project since it began with DOL/ETA funding in 1998. He is the principal investigator for JFI's WDQI scope-of-work in partnership with the Maryland Department of Labor, Licensing and Regulation and other state agencies. David serves on multiple MD LDS workgroups and on advisory panels convened by the DQC and the national team designing a complementary WDQC initiative. He delivered an invited presentation on Benefit-Cost Analysis and Integrated Data Systems at a November 2011 conference funded by the MacArthur Foundation and hosted by the University of Pennsylvania Intelligence for Social Policy (ISP) leadership team.

DAVID W. STEVENS
Executive Director
The Jacob France Institute
Merrick School of Business
University of Baltimore

November 2009

Ph.D. University of Colorado, Economics

Faculty appointments (partial)

- 1993-current Executive Director, The Jacob France Institute, and Research Professor of Economics, Merrick School of Business, University of Baltimore
- Previous University of Missouri-Columbia. 18 years tenured academic ranks

Other Affiliations

- 1976-81 Co-Director, Harvard Institute in Employment and Training Administration
- 1976-77 Visiting Social Scientist, Abt Associates, Inc.
- 1975-76 National Science Foundation Faculty Science Fellow, Joint Center for Urban Studies, Harvard University-MIT
- 1973-75 Faculty Member, Harvard Institute in Employment and Training Administration

Relevant publications (selected)

- Beyond Higher Education: Other Sources of Data for Tracking Students, New Directions for Community Colleges*, Number 143 (Fall 2008), Hoboken, NJ: Jossey-Bass Publishers, pp. 83-92.
- Employment that is not covered by state unemployment insurance laws*, (2007) Technical Paper No. TP-2007-04, Suitland, MD: U.S. Census Bureau, 37 pp. (available at <http://lehd.did.census.gov/led/library/techpapers/tp-2007-04.pdf>).
- A Guide to the Use of Administrative Records to Achieve Data Quality Standards in Federal Reporting of CTE Performance*, Washington, September 2006, D.C.: U.S. Department of Education, Office of Vocational and Adult Education, 34 pp. (available at <http://www.educountability.net>, click on *A Guide to the Use of Administrative Records*).
- Responsible Use of Administrative Records for Performance Accountability: Features of Successful Partnerships*, 2004, Washington, D.C.: U.S. Department of Labor, Employment and Training Administration, Office of Policy Development and Research, 48 pp. (available at <http://www.ubalt.edu/ifi/adare/repts/ADAREcookbook504.pdf>).

- Labor Market Dynamics: One Component of an Integrated System of Labor Market Information*, 2004, Washington, D.C.: Workforce Information Council c/o Bureau of Labor Statistics, U.S. Department of Labor, 35 pp. (available at <http://www.workforceinfocouncil.org/documents/LaborMarketDynamicsConceptPaper.doc>).
- 21st Century Accountability: Perkins III and WIA*, Columbus, OH: The Ohio State University, National Dissemination Center for Career and Technical Education, Center on Education and Training for Employment, (December 2001), 79 pp. (available at <http://www.nccte.org/publications/infosynthesis/infopaper/infopaper02/infopaper02.pdf>).
- Job Flows, Worker Flows and Churning, *Journal of Labor Economics*, 18:3 (July 2000), pp. 473-502 (with Simon Burgess and Julia Lane)
- "Employment and Earnings Outcomes: New Perspectives," in Jorge Sanchez and Frankie Santos Laanan (eds.), *Determining the Economic Benefits of Attending Community College*, New Directions for Community Colleges Series, Number 104, San Francisco, CA: Jossey-Bass Publishers, (Winter 1998), pp. 95-101.
- "Vocational Education Accountability in a Block Grant World," in Garth Mangum and Stephen Mangum (eds), *Of Heart and Mind: Social Essays in Honor of Sar Levifan*, Kalamazoo, MI: Upjohn Institute Press, (1996), pp. 131-153.
- Performance Measurement Revisited, *Journal of Vocational Education Research*, 19:3 (1994), pp. 65-82.
- "Experiences of High School Graduates in Finding Employment, in Albert Pautler (ed.) *Contemporary Issues in School to Employment Transition*, Ann Arbor, MI: Prakken Publications, (1993), pp. 73-83.
- Occupational Information: The Blue Highways of Labor Market Information*, Washington, DC: National Occupational Information Coordinating Committee, August 1993: 42 pp.
- National Performance Indicators for Vocational-Technical Education*, Washington, DC: Office of Vocational and Adult Education, U.S. Department of Education, March 1992: 25 pp.
- "Occupations and Earnings of Former Vocational Education Students: Design Issues," *Design Papers for the National Assessment of Vocational Education*, Washington, DC: U.S. Department of Education, (1992), pp. 157-171.
- "The Confidentiality Provisions of State Unemployment Compensation Laws," in Vince Geraci and Carol Romero (eds.), *Using Unemployment Insurance Wage-Record Data for JTPA Performance Management*, Washington, DC: The National Commission for Employment Policy, (1992), pp. 93-116.
- "State Strategies for Building Market-Based Workforce Preparation Systems," in Evelyn Ganzglass (ed.), *Excellence at Work*, Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, (1992), pp. 71-110 (with Robert G. Sheets).
- "A Multistate Wage-Record Archive: Simultaneous Achievement of Economies-of-Scale, Quality Control, and Database Security," Building Information Partnerships: Conference Proceedings, Washington, DC: National Governors' Association, 1991: pp. 107-112.

Biographical Sketch – Leslie Wilson

Dr. Leslie Wilson is the Assistant State Superintendent for the division of Accountability and Assessment at the Maryland State Department of Education. The Division provides accountability at the state, school system and school level to Maryland education stakeholders as well as the federal government. Data are collected on an annual basis with particular emphasis on meeting the requirements of the No Child Left Behind legislation. Dr. Wilson's division also administers the Maryland School Performance Program's assessment program and annual Report Card. Dr. Wilson is responsible for the analysis and interpretation of data to provide the basis for school improvement efforts and policy decisions. The Division maintains the Education Data Warehouse and is responsible for the collection of data from local school systems and other entities; the validation, definition, and maintenance of multi-year data in accordance with Department and Division policies and procedures to assure data quality and accessibility. Beginning in 2007, these responsibilities include the implementation and maintenance of a unique student identifier and future development of a longitudinal data system. Dr. Wilson has over 30 years of experience in data systems, assessment and accountability at the state, local school system and University level, with specific expertise in the collection, reporting, interpretation and use of data for educational decision making. In addition she has authored two books on assessment and school improvement. She received her Ph.D. from the University of Maryland in the area of Education Measurement, Statistics and Evaluation.

11. Appendix D
Acronym List

ACA – America Competes Act
AYP – Annual Yearly Progress
CEDS – Common Education Data Standards
COTS – Custom off the Shelf
CTE – Career Technology Education
DLLR – Department of Labor, Licensing and Regulation
DQC – Data Quality Campaign
ECH – Early Childhood Education
ETL – Extract Transform Load
FERPA – Family Educational Rights and Privacy Act
FMIS – Financial Management Information System
GED – General Education Development
GIS – Geographic Information System
IDM – Identity Management
ITWG – Interagency Technical Work Group
JFI – Jacob France Institute
JSE – Juvenile Services Education
K12 – Kindergarten to Grade 12
LEA – Local Education Agency
MDM - Master Data Management
MHEC – Maryland Higher Education Commission
MSDE – Maryland State Department of Education
OBIEE – Oracle Business Intelligence Enterprise Edition
P20W – Preschool to Graduate School into Workforce
PII – Personally Identifiable Information
PK12 – Preschool to Grade 12
PMBOK – Project Management Body of Knowledge
RTTT – Race to the Top
ROI – Return on Investment
SAS – Statistical Analysis System
SCED - School Codes for the Exchange of Data
SDLC – Systems Development Life Cycle
SIS – Student Information System
SLDS – Statewide Longitudinal Data System
STEM – Science Technology Engineering and Math
USIS – Unique Student Identifier System
USM – University System of Maryland
VM – Virtual Machine

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

OMB Number: 1894-0008
Expiration Date: 02/28/2011

Name of Institution/Organization

Maryland State Department of Education

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

**SECTION A - BUDGET SUMMARY
U.S. DEPARTMENT OF EDUCATION FUNDS**

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	0.00	0.00	0.00			0.00
2. Fringe Benefits	0.00	0.00	0.00			0.00
3. Travel	1,000.00	7,000.00	7,000.00			15,000.00
4. Equipment	490,000.00	350,000.00	0.00			840,000.00
5. Supplies	500.00	4,000.00	1,000.00			5,500.00
6. Contractual	1,291,260.00	964,660.00	155,000.00			2,410,920.00
7. Construction	0.00	0.00	0.00			0.00
8. Other	0.00	0.00	0.00			0.00
9. Total Direct Costs (lines 1-8)	1,782,760.00	1,325,660.00	163,000.00			3,271,420.00
10. Indirect Costs*	161,470.00	121,083.00	19,500.00			302,053.00
11. Training Stipends	75,000.00	195,000.00	120,000.00			390,000.00
12. Total Costs (lines 9-11)	2,019,230.00	1,641,743.00	302,500.00			3,963,473.00

***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? Yes No

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

Period Covered by the Indirect Cost Rate Agreement: From: 07/01/2011 To: 12/31/2011 (mm/dd/yyyy)

Approving Federal agency: ED Other (please specify): _____

The Indirect Cost Rate is 12.50 %.

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

Is included in your approved Indirect Cost Rate Agreement? or, Complies with 34 CFR 76.564(c)(2)? The Restricted Indirect Cost Rate is _____ %.

Name of Institution/Organization

Maryland State Department of Education

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

**SECTION B - BUDGET SUMMARY
NON-FEDERAL FUNDS**

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel						
2. Fringe Benefits						
3. Travel						
4. Equipment						
5. Supplies						
6. Contractual						
7. Construction						
8. Other						
9. Total Direct Costs (lines 1-8)						
10. Indirect Costs						
11. Training Stipends						
12. Total Costs (lines 9-11)						

SECTION C - BUDGET NARRATIVE (see instructions)

7. BUDGET NARRATIVE

A. Summary Project Budget

Maryland is requesting a total of \$ 3,963,473 over three project years to complete the five outcomes for the proposed LDS project, as noted in the table below (see Form ED 524 Section C for a spreadsheet with full details).

Objectives	Year 1 Costs	Year 2 Costs	Year 3 Costs	Total Costs*
Objective 1 Expand Data	\$559,113	\$774,125	-	\$1,333,238
Objective 2 Data Quality	\$895,000	-	-	\$895,000
Objective 3 Dashboards	\$247,500	\$247,500	-	\$ 495,000
Objective 4 Training	0	\$302,500	\$133,750	\$ 436,250
Objective 5 Research	\$75,000	\$ 75,000		\$150,000
Project Manager	\$242,618	\$242,618	\$168,750	\$ 653,985
Subtotal by Year	\$2,019,230	\$1,641,743	\$302,500	
Grand total				\$3,963,473

**Totals may be off due to rounding.*

A separate budget narrative has been prepared for each project proposed. Each agency has an operational budget to support the proposed projects and therefore sustainability does not have to be considered as an issue for these projects.

B. Budget Considerations

Personnel and Fringe Benefits - These budget categories are not used for the projects proposed in this grant. Agency personnel that will work on the proposed projects represent the agency's cost contribution to the grant.

Travel - Any travel related expenses will be governed by the applicable Maryland State Travel Regulations and where appropriate the GSA per diem rates. Travel has been forecasted to cover the required project manager attendance for grantees.

Equipment - This category includes hardware and software, or other related physical equipment, needed for the projects proposed that are purchased for ownership by MSDE or any of the partner agencies listed in this grant.

Supplies - Supplies are limited to material required to support the development of training, or to support contractual development staff.

Contractual - This category consists of consultants or vendors that are engaged to perform grant tasks, or to fund grant work performed by partner agencies.

Construction - This budget category is not used for this grant.

Other - This budget category is not used for this grant.

Indirect Costs - Indirect costs are charged against contractual category and supplies at the appropriate federally negotiated rate of 12.5% and changes per year as allowed by Maryland's agreement with USDE.

Training Stipends - This category is used to pay graduate students and data fellows that are training with the grant contributing to the grant's research projects.

Last, unless indicated all totals presented in forecasted costs are for the three-year project period.

C. Project Budgets

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

Amount Requested: 496,800

Key Deliverables:

- Data entry screens programs for data collection
- Data structures for longitudinal data storage
- Tracking & accountability dashboard
- ETL programs to transfer private career student school data to SLDS systems

Budget Summary:

Project 1.1 Implement private career school data collection and add data to P20W SLDS					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$165,600	\$276,000	\$0	\$441,600
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$165,600	\$276,000	\$0	\$441,600
10	Indirect Costs	\$20,700	\$34,500	\$0	\$55,200
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$186,300	\$310,500	\$0	496,800

Budget Description:

Contractual costs in Year 1 are for a part-time business analyst to design the data entry screens, business process, and training plan. Data modeling and other technical operation support for the data are being provided from the internal MSDE team at no charge.

Contractual costs for Year 2 are for a 1 FTE APEX HTML developer, and a .25 FTE ELT developer. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours.

This project will use the existing MHEC SLDS infrastructure and therefore no equipment or software expenditures are required.

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

Amount Requested: \$577,688

Key Deliverables:

- Implement COTS student information system
- ETL programs to transfer juvenile services education data to SLDS systems

Budget Summary:

Project 1.2 Implement juvenile services education data collection and add to PK12 SLDS					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$1,000	\$0	\$0	\$1,000
4	Equipment	\$0	\$350,000	\$0	\$350,000
5	Supplies	\$500	\$1,000	\$0	\$1,500
6	Contractual	\$100,000	\$100,000	\$0	\$200,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$101,500	\$451,000	\$0	\$552,500
10	Indirect Costs	\$12,563	\$12,625	\$0	\$25,188
11	Training Stipends				\$0
12	Total Costs (lines 9-11)	\$114,063	\$463,625	\$0	\$577,688

Budget Description:

This project will purchase a simple student information system that can be implemented to support the teachers in the 14 juvenile service division schools. Costs for the software and hardware were based on previous vendor quotes and purchases. Hardware is estimated to be \$150,000 while the application plus installation is estimated to cost about \$200,000.

Year 1 contractual labor for .5 FTE will be for a business analysis to verify the required application functionality and how best to implement the system. Contractual costs for Year 2 are for a .25-.5 ETL FTE to create ETL program(s) to load data from the student information system to the SLDS systems. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours

Travel is for the business analyst to visit the schools.

Supplies include paper and toner cartridges for presentations and printing of manuals.

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

Amount Requested: \$168,750

Key Deliverables:

- Implement GED Data Collection Module
- ETL programs to transfer GED data SLDS systems

Budget Summary:

Project 1.3 Implement adult GED data collection and add data to PK12 SLDS					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$150,000	\$0	\$0	\$150,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$150,000	\$0	\$0	\$150,000
10	Indirect Costs	\$18,750	\$0	\$0	\$18,750
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$168,750	\$0	\$0	\$168,750

Budget Description:

This project will develop and implement a COTS GED module from an existing vendor that provides software for an existing information systems for DLLR. Costs for developing the software were based on vendor estimates. Year 1 contractual labor consists of vendor software development effort, plus \$50,000 that is allocated to a .25-.5 ETL FTE to create ETL program(s) to load data student GED information system to the SLDS system. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours

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

Amount Requested: \$90,000

Key Deliverables:

- Implement an adult corrections education data collection module
- ETL programs to transfer adult correction education information to SLDS systems

Budget Summary:

Project 1.4 Implement adult correctional education data collection and add to PK12 SLDS					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$80,000	\$0	\$0	\$80,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$80,000	\$0	\$0	\$80,000
10	Indirect Costs	\$10,000	\$0	\$0	\$10,000
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$90,000	\$0	\$0	\$90,000

Budget Description:

This project will develop and implement a COTS adult correctional education data collection module from an existing vendor that provides software for an existing information systems for DLLR. Costs for developing the software were based on vendor estimates. Year 1 contractual labor consists of a fixed bid software development effort, plus \$25,000 that is allocated to a .15-.25 ETL FTE to create ETL program to load student data from the module to the SLDS system. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours.

Project 2.1 Implement a master data management system (MDM).

Amount Requested: \$605,000

Key Deliverables:

- Implement a MDM system
- Implement a tracking & accountability MDM dashboard

Budget Summary:

Project 2.1 Implement a master data management system.					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$380,000	\$0	\$0	\$380,000
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$200,000	\$0	\$0	\$200,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$580,000	\$0	\$0	\$580,000
10	Indirect Costs	\$25,000	\$0	\$0	\$25,000
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$605,000	\$0	\$0	\$605,000

Budget Description:

MDM software is estimated to cost \$350,000 based on previous vendor estimates which will leverage a 70% educational discount of an existing enterprise license. Hardware for the application includes the expansion of storage for \$10,000 and a Dell hardware server for \$20,000. Estimated contractual costs are for vendor installation and setup of the MDM system. ETL integration of the MDM with the SLDS will be done by the internal SLDS staff. Contracts rate in Maryland range from \$80/hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours.

Project 2.2 Implement a probabilistic data matching subsystem and web service

Amount Requested: \$290,000

Key Deliverables:

- Implement web service for batch student identifier lookups for higher education
- Implement a probabilistic data matching program to improve directory data matching

Budget Summary:

Project 2.2 Implement probabilistic data matching subsystem and web service					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$110,000	\$0	\$0	\$110,000
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$160,000	\$0	\$0	\$160,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$270,000	\$0	\$0	\$270,000
10	Indirect Costs	\$20,000	\$0	\$0	\$20,000
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$290,000	\$0	\$0	\$290,000

Budget Description:

Probabilistic matching software is estimated to cost \$80,000 based on previous vendor estimates. Hardware for the application includes expansion of storage for \$10,000 and a Dell hardware server for \$20,000.

Contractual costs for Year 1 are for installation and setup costs of the probabilistic software module by the vendor and along with the modification of an existing batch module to the unique student identifier system to make it into a web service. Contracts rate in Maryland range from \$80/hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours.

3.1 Develop PK12-P20W CTE K12-CC curriculum alignment dashboard

Amount Requested: \$123,750

Key Deliverables

- Dashboard and Database Schema
- ETL programs to transfer data between SLDS systems
- Multimedia training aid

Budget Summary:

3.1 Develop PK12-P20W CTE K12-CC curriculum alignment dashboard					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$110,000	\$0	\$0	\$110,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$110,000	\$0	\$0	\$110,000
10	Indirect Costs	\$13,750	\$0	\$0	\$13,750
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$123,750	\$0	\$0	\$123,750

Budget Description:

This project uses the existing SLDS BI infrastructure and databases. Contractual costs for Year 2 are for a .25 FTE OBIEE developer and a .25 ETL developer to create the dashboard. Developing the dashboard includes the business application database schema and addition ETL programs to load data in to the SLDS schema. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours. Multimedia training for end-users takes about two weeks to develop and will be done by internal project members.

3.2 Develop PK12-P20W early college access outcome dashboard project

Amount Requested: \$123,750

Key Deliverables:

- Dashboard and Database Schema
- ETL programs to transfer data between SLDS systems
- Multimedia training aid

Budget Summary

3.2 Develop PK12-P20W early college access outcome dashboard project					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$110,000	\$0	\$0	\$110,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$110,000	\$0	\$0	\$110,000
10	Indirect Costs	\$13,750	\$0	\$0	\$13,750
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$123,750	\$0	\$0	\$123,750

Budget Description:

This project uses the existing SLDS BI infrastructure and databases. Contractual costs for Year 2 are for a .25 FTE OBIEE developer and a .25 ETL developer to create the dashboard. Developing the dashboard includes the business application database schema and addition ETL programs to load data in to the SLDS schema. Contracts rate in Maryland range from \$80/hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours. Multimedia training for end-users takes about two weeks to develop and will be done by internal project members.

3.3 Develop College-to-Work CTE program outcome dashboard

Amount Requested: \$123,750

Key Deliverables:

- Dashboard and Database Schema
- ETL programs to transfer data between SLDS systems
- Multimedia training aid

Budget Summary:

3.3 Develop College-to-Work CTE program outcome dashboard					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$0	\$110,000.00	\$0	\$110,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$110,000	\$0	\$110,000
10	Indirect Costs	\$0	\$13,750	\$0	\$13,750
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$0	\$123,750	\$0	\$123,750

Budget Description:

This project uses the existing SLDS BI infrastructure and databases. Contractual costs for Year 2 are for a .25 FTE OBIEE developer and a .25 ETL developer to create the dashboard. Developing the dashboard includes the business application database schema and addition ETL programs to load data in to the SLDS schema. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours. Multimedia training for end-users takes about two weeks to develop and will be done by internal project members.

3.4 Develop P20W SLDS Education to Work Life-span Summary Dashboard

Amount Request: \$123,750

Key Deliverables:

- Dashboard and Database and Schema
- ETL programs to transfer data between SLDS systems
- Multimedia training aid

Budget Summary:

3.4 Develop P20W SLDS Education to Work Life-span Summary Dashboard					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$0	\$110,000	\$0	\$110,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$110,000	\$0	\$110,000
10	Indirect Costs	\$0	\$13,750	\$0	\$13,750
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$0	\$123,750	\$0	\$123,750

Budget Description:

This project uses the existing SLDS BI infrastructure and databases. Contractual costs for Year 2 are for a .25 FTE OBIEE developer and a .25 ETL developer to create the dashboard. Developing the dashboard includes the business application database schema and addition ETL programs to load data in to the SLDS schema. Contracts rate in Maryland range from \$80hr-\$115/hr. Contracts for .5 FTE are for 1,040 hours while 1 FTE contracts are for 2,080 hours. Multimedia training for end-users takes about two weeks to develop and will be done by internal project members.

4.1 Implement SLDS Research Training Academy

Amount Requested: \$267,500

Key Deliverables:

- Curriculum and training
- Final Research Papers
- Seminar satisfaction survey

Budget Summary:

4.1 Implement SLDS Research Training Academy					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	0	\$0	\$0	\$0
2	Fringe Benefits	0	\$0	\$0	\$0
3	Travel	0	\$7,000	\$7,000	\$14,000
4	Equipment	0	\$0	\$0	\$0
5	Supplies	0	\$1,000	\$1,000	\$2,000
6	Contractual	0	\$5,000	\$5,000	\$10,000
7	Construction	0	\$0	\$0	\$0
8	Other	0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	0	\$13,000	\$13,000	\$26,000
10	Indirect Costs	0	\$750	\$750	\$1,500
11	Training Stipends	0	\$120,000	\$120,000	\$240,000
12	Total Costs (lines 9-11)	0	\$133,750	\$133,750	\$267,500

Budget Summary:

The training academy allows advanced graduate students, called data fellows, to apply to the training program for 1-2 semesters, attend lectures, be mentored in the areas of education SLDS research, and work on an SLDS research project to develop applied research and analytic skills.

Travel will be used for 5-8 lecturers and allow the project to expose the data fellows to leading researchers.

Supplies consist of paper, photocopying, and printer cartridges to prepare course and lecture material.

Contractual is for fixed cost consulting of a subject matter expert on the development and execution of the academy.

Training stipends are to attract the best candidates for data fellows, and help to underwrite the SLDS research they are performing.

4.2 Implement SLDS Legislators Training Academy

Amount Requested: \$168,750

Key Deliverables:

- Curriculum
- Training session for State Legislators
- Seminar satisfaction survey

4.2 Implement SLDS Legislators Training Academy					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$ 2,000	\$0	\$2,000
6	Contractual	\$0	\$148,000	\$0	\$148,000
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$150,000	\$0	\$150,000
10	Indirect Costs	\$0	\$18,750	\$0	\$18,750
11	Training Stipends	\$0	\$0	\$0	\$0
12	Total Costs (lines 9-11)	\$0	\$168,750	\$0	\$168,750

Budget Description:

Supplies consist of printing, photocopying, printer cartridges, and invitations for the Maryland State Legislators.

Contractual cost is a fixed bid vendor contract to prepare, test, and deliver a training program to the State Legislators. Legislators will use Tablets to access and explore the SLDS systems which will be provided by the SLDS project team at no cost for the training.

Survey forms will be sent electronically using the SLDS teams Survey Monkey account at no cost to the project.

Project 5.1 Assessing STEM post-graduate student regional work retention

Amount Requested: \$50,000

Key Deliverables:

- Research data
- Research Final Report

Project 5.1 Assessing STEM post-graduate student regional work retention.					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$0	\$0	\$0	\$0
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$0	\$0	\$0
10	Indirect Costs	\$0	\$0	\$0	\$0
11	Training Stipends	\$25,000	\$25,000	\$0	\$50,000
12	Total Costs (lines 9-11)	\$25,000	\$25,000	\$0	\$50,000

Budget Description:

This research project will be performed by an advanced educational or policy graduate student under a training stipend. Each one-year stipend covers two academic semesters.

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

Amount Requested: \$50,000

Key Deliverables:

- Research data
- Research Final Report

Budget Summary:

Project 5.2 Assessing need for inclusion of online education data in the SLDS					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$0	\$0	\$0	\$0
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$0	\$0	\$0
10	Indirect Costs	\$0	\$0	\$0	\$0
11	Training Stipends	\$25,000	\$ 25,000	\$0	\$50,000
12	Total Costs (lines 9-11)	\$25,000	\$25,000	\$0	\$50,000

Budget Description:

This research project will be performed by an advanced educational or policy graduate student under a training stipend. Each one-year stipend covers two academic semesters.

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

Amount Requested: \$50,000

Key Deliverables:

- Research data
- Research Final Report

Budget Summary:

Project 5.3 Assessing training and retention of early childhood workforce in Maryland					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$0	\$0	\$0	\$0
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$0	\$0	\$0
10	Indirect Costs	\$0	\$0	\$0	\$0
11	Training Stipends	\$25,000	\$25,000	\$0	\$50,000
12	Total Costs (lines 9-11)	\$25,000	\$25,000	\$0	\$50,000

Budget Description:

This research project will be performed by an advanced educational or policy graduate student under a training stipend. Each one-year stipend covers two academic semesters.

Project Administration – Project Manager

Amount Requested: \$665,985

Key Deliverables:

- Status reports
- Management Reports
- PMBOK documents
- Maintenance of portal
- Coordination of partner agencies and agency project managers
- Budget tracking and reconciliation

Budget Summary:

Project Administration – Project Manager					
	Category	Year 1	Year 2	Year 3	3-Year Total
1	Personnel	\$0	\$0	\$0	\$0
2	Fringe Benefits	\$0	\$0	\$0	\$0
3	Travel	\$0	\$0	\$0	\$0
4	Equipment	\$0	\$0	\$0	\$0
5	Supplies	\$0	\$0	\$0	\$0
6	Contractual	\$215,660	\$ 215,660	\$150,000	\$581,320
7	Construction	\$0	\$0	\$0	\$0
8	Other	\$0	\$0	\$0	\$0
9	Total Direct Costs (lines 1-8)	\$0	\$0	\$0	\$0
10	Indirect Costs	\$26,958	\$26,598	\$18,750	\$72,665
11	Training Stipends	\$0	\$0	\$0	\$
12	Total Costs (lines 9-11)	\$242,618	\$ 242,618	\$168,750	\$653,985

Budget Description:

NA

Outcome #1.1 Implement private career school data collection and add data to P20W SLDS

Contractor Annual Rate/ Unit Cost	FTE Fraction	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel		0	0	0	0	
not applicable		0	0	0	0	
Total Personnel		0	0	0	0	
2 Fringe Benefits		0	0	0	0	
not applicable		0	0	0	0	
Total Fringe Benefits		0	0	0	0	
3 Travel		0	0	0	0	
not applicable		0	0	0	0	
Total Travel		0	0	0	0	
4 Equipment		0	0	0	0	
not applicable		0	0	0	0	
Total Equipment		0	0	0	0	
5 Supplies		0	0	0	0	
not applicable		0	0	0	0	
Total Supplies		0	0	0	0	
6 Contractual		165,600	207,000	69,000	441,600	
business analyst	50%	165,600	207,000	69,000	441,600	
APEX Developer	75%		207,000		207,000	
ETL Developer	25%		69,000		69,000	
Total Contractual		165,600	276,000	0	441,600	
7 Construction		0	0	0	0	
not applicable		0	0	0	0	
Total Construction		0	0	0	0	
8 Other		0	0	0	0	
not applicable		0	0	0	0	
Total Other		0	0	0	0	
9 Total Direct Costs (lines 1-8)		165,600	276,000	0	441,600	
10 Indirect Costs (12.5%)		20,700	34,500	0	55,200	
11 Training Stipends		0	0	0	0	
12 Total Costs (lines 9-11)		186,300	310,500	0	496,800	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #1.2 Implement juvenile services education data collection and add to PK12 SLDs

	Salary/ Contractor Annual Rate/ Unit Cost	FTE fraction	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel							
not applicable						0	
Total Personnel			0	0	0	0	
2 Fringe Benefits							
not applicable						0	
Total Fringe Benefits			0	0	0	0	
3 Travel							
visit to 14 schools			1,000			0	
Total Travel			1,000	0	0	1,000	
4 Equipment							
Hardware			0	150,000	0	150,000	
Software + Installation			0	200,000	0	200,000	
Total Equipment			0	350,000	0	350,000	
5 Supplies							
paper, printing			500	1,000		1,500	
Total Supplies			500	1,000	0	1,500	
6 Contractual							
business analyst	\$80-\$115 hr	50%	100,000			100,000	staff managed by internal
FTL developer	\$80-\$115 hr	50%		100,000		100,000	agency PM
Total Contractual			100,000	100,000	0	200,000	
7 Construction							
not applicable						0	
Total Construction			0	0	0	0	
8 Other							
not applicable						0	
Total Other			0	0	0	0	
9	Total Direct Costs (lines 1-8)		101,500	451,000	0	552,500	
10	Indirect Costs (12.5%)		12,563	12,625	0	25,188	
11	Training Stipends		0	0	0	0	
12	Total Costs (lines 9-11)		114,063	463,625	0	577,688	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #1.3 Implement adult GED data collection and add data to PK12 SLDS

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1. Personnel not applicable			0	0	0	0	
Total Personnel			0	0	0	0	
2. Fringe Benefits not applicable			0	0	0	0	
Total Fringe Benefits			0	0	0	0	
3. Travel not applicable			0	0	0	0	
Total Travel			0	0	0	0	
4. Equipment			0	0	0	0	
Total Equipment			0	0	0	0	
5. Supplies			0	0	0	0	
Total Supplies			0	0	0	0	
6. Contractual			0	0	0	0	
Vendor development of software module	fix bid		125,000			125,000	done by current agency vendor providing and managing the application to be enhanced
ETL Developer	\$80-\$115/hr	0.25	31,250			31,250	creates data load from module to SLDS
Total Contractual			150,000	0	0	150,000	
7. Construction			0	0	0	0	
Total Construction			0	0	0	0	
8. Other			0	0	0	0	
Total Other			0	0	0	0	
9. Total Direct Costs (lines 1-8)			150,000	0	0	150,000	
10. Indirect Costs (12.5%)			18,750	0	0	18,750	
11. Training Stipends			0	0	0	0	
12. Total Costs (lines 9-11)			168,750	0	0	168,750	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

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

Contractor/ Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel not applicable						
Total Personnel						
		0	0	0	0	0
2 Fringe Benefits not applicable						
Total Fringe Benefits						
		0	0	0	0	0
3 Travel not applicable						
Total Travel						
		0	0	0	0	0
4 Equipment not applicable						
Total Equipment						
		0	0	0	0	0
5 Supplies not applicable						
Total Supplies						
		0	0	0	0	0
6 Contractual Vendor module	fixed bid	60,000			60,000	
ETL developer	0.25	20,000			20,000	develops data transfer into 20,000 SLDS
Total Contractual						
		80,000	0	0	80,000	
7 Construction not applicable						
Total Construction						
		0	0	0	0	0
8 Other not applicable						
Total Other						
		0	0	0	0	0
9	Total Direct Costs (lines 1-8)	80,000	0	0	80,000	
10	Indirect Costs (12.5%)	10,000	0	0	10,000	
11	Training Stipends	0	0	0	0	
12	Total Costs (lines 9-11)	90,000	0	0	90,000	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #2.1 Implementation of a master data management system

Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel not applicable		0	0	0	0	
<i>Total Personnel</i>						
2 Fringe Benefits not applicable		0	0	0	0	
<i>Total Fringe Benefits</i>						
3 Travel not applicable		0	0	0	0	
<i>Total Travel</i>						
4 Equipment storage		10,000	0	0	10,000	
server		20,000	0	0	20,000	
Software		350,000	0	0	350,000	
<i>Total Equipment</i>						
5 Supplies not applicable		380,000	0	0	380,000	
<i>Total Supplies</i>						
6 Contractual vendor fixed bid		0	0	0	0	Installation and setup of 200,000 software
<i>Total Contractual</i>						
7 Construction		200,000	0	0	200,000	
<i>Total Construction</i>						
8 Other		0	0	0	0	
<i>Total Other</i>						
9 Total Direct Costs (lines 1-8)		580,000	0	0	580,000	
10 Indirect Costs (12.5%)		25,000	0	0	25,000	
11 Training Stipends		0	0	0	0	
12 Total Costs (lines 9-11)		605,000	0	0	605,000	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Outcome #2.2 Implementation of a probabilistic directory matching subsystem

Contractor/ Annual Rate/ Unit Cost	FTE %	Year			3-Year Total	Additional Notes
		Year 1	Year 2	Year 3		
1 Personnel not applicable		0	0	0	0	
Total Personnel						
2 Fringe benefits not applicable		0	0	0	0	
Total Fringe Benefits						
3 Travel not applicable		0	0	0	0	
Total Travel						
4 Equipment storage server Software		10,000 20,000 80,000	0 0 0	0 0 0	10,000 20,000 80,000	
Total Equipment						
5 Supplies		110,000	0	0	110,000	
Total Supplies						
6 Contractual Vendor fixed bid		160,000	0	0	160,000	installation and setup of module and enhancement of existing 160,000 module to be a webservice
Total Contractual						
7 Construction not applicable		0	0	0	0	
Total Construction						
8 Other not applicable		0	0	0	0	
Total Other						
9 Total Direct Costs (lines 1-8)		270,000	0	0	270,000	
10 Indirect Costs (12.5%)		20,000	0	0	20,000	
11 Training Stipends		0	0	0	0	
12 Total Costs (lines 9-11)		290,000	0	0	290,000	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Outcome #3.1 Development of PK12-P20W CTE curriculum alignment dashboard

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
Personnel							
not applicable							
Total Personnel			0	0	0	0	
2 Fringe Benefits							
not applicable							
Total Fringe Benefits			0	0	0	0	
3 Travel							
not applicable							
Total Travel			0	0	0	0	
4 Equipment							
not applicable							
Total Equipment			0	0	0	0	
5 Supplies							
not applicable							
Total Supplies			0	0	0	0	
6 Contractual							
OBIE developer	\$80-\$115/hr	0.25	55,000			55,000	
ETL developer	\$80-\$115/hr	0.25	55,000			55,000	
Total Contractual			110,000	0	0	110,000	
7 Construction							
Total Construction			0	0	0	0	
8 Other							
Total Other			0	0	0	0	
9 Total Direct Costs (lines 1-8)			110,000	0	0	110,000	
10 Indirect Costs (12.5%)			13,750	0	0	13,750	
11 Training Stipends			0	0	0	0	
12 Total Costs (lines 9-11)			123,750	0	0	123,750	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #3.2: Development of PK12-P20W early college access outcome dashboard

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel							
not applicable							
Total Personnel			0	0	0	0	
2 Fringe Benefits							
not applicable							
Total Fringe Benefits			0	0	0	0	
3 Travel							
not applicable							
Total Travel			0	0	0	0	
4 Equipment							
not applicable							
Total Equipment			0	0	0	0	
5 Supplies							
not applicable							
Total Supplies			0	0	0	0	
6 Contractual							
OBIE developer	\$80-\$115	0.25	55,000			55,000	
ETL developer	\$80-\$115	0.25	55,000			55,000	
Total Contractual			110,000	0	0	110,000	
7 Construction							
not applicable							
Total Construction			0	0	0	0	
8 Other							
not applicable							
Total Other			0	0	0	0	
9 Total Direct Costs (lines 1-8)			110,000	0	0	110,000	
10 Indirect Costs (12.5%)			13,750	0	0	13,750	
11 Training Stipends			0	0	0	0	
12 Total Costs (lines 9-11)			123,750	0	0	123,750	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Outcome #3.3 Development of College-to-Work CTE program outcome dashboard

Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel not applicable					0	
Total Personnel						0
2 Fringe Benefits not applicable					0	
Total Fringe Benefits						0
3 Travel					0	
Total Travel						0
4 Equipment not applicable					0	
Total Equipment						0
5 Supplies not applicable					0	
Total Supplies						0
6 Contractual OBIE developer \$80-\$115 ETL Developer \$80-\$115	0.25 0.25		55,000 55,000		55,000 55,000	
Total Contractual						110,000
7 Construction not applicable					0	
Total Construction						0
8 Other not applicable					0	
Total Other						0
9 Total Direct Costs (lines 1-8)		0	110,000	0	110,000	
10 Indirect Costs (12.5%)		0	13,750	0	13,750	
11 Training Stipends		0	0	0	0	
12 Total Costs (lines 9-11)		0	123,750	0	123,750	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Outcome #3.4 Develop P20W SLDS Education to Work Life Span Dashboard

Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel						
not applicable						
Total Personnel		0	0	0	0	
2 Fringe Benefits						
not applicable						
Total Fringe Benefits		0	0	0	0	
3 Travel						
not applicable						
Total Travel		0	0	0	0	
4 Equipment						
not applicable						
Total Equipment		0	0	0	0	
5 Supplies						
not applicable						
Total Supplies		0	0	0	0	
6 Contractual						
OBIE developer \$80-\$115	0.25		55,000			
ETL developer \$80-\$115	0.25		55,000			
Total Contractual		0	110,000	0	110,000	
7 Construction						
not applicable						
Total Construction		0	0	0	0	
8 Other						
not applicable						
Total Other		0	0	0	0	
9 Total Direct Costs (lines 1-8)		0	110,000	0	110,000	
10 Indirect Costs (12.5%)		0	13,750	0	13,750	
11 Training Stipends		0	0	0	0	
12 Total Costs (lines 9-11)		0	123,750	0	123,750	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #4.1 Implement SLDS Research Training Academy

Contractor/ Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel not applicable		0	0	0	0	
Total Personnel						
2 Fringe Benefits not applicable		0	0	0	0	
Total Fringe Benefits						
3 Travel travel for 5 out of state lectures		0	7,000	7,000	14,000	travel to USM MD to work with data fellows
Total Travel						
4 Equipment not applicable		0	0	0	0	
Total Equipment						
5 Supplies paper, photocopying, printing		0	1,000	1,000	2,000	
Total Supplies						
6 Contractual academy setup advisor fixed bid		0	5,000	5,000	10,000	
Total Contractual						
7 Construction not applicable		0	0	0	0	
Total Construction						
8 Other not applicable		0	0	0	0	
Total Other						
9		0	13,000	13,000	26,000	
10		0	750	750	1,500	
11		0	120,000	120,000	240,000	
12		0	133,750	133,750	267,500	
Total Direct Costs (lines 1-8)						
Indirect Costs (12.5%)						
Training Stipends						
Total Costs (lines 9-11)						

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #4.2 Legislators Training Academy

	Salary/ Contractor/ Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel							
not applicable							
Total Personnel			0	0	0	0	
2 Fringe Benefits							
not applicable							
Total Fringe Benefits			0	0	0	0	
3 Travel							
not applicable							
Total Travel			0	0	0	0	
4 Equipment							
not applicable							
Total Equipment			0	0	0	0	
5 Supplies							
paper, printing, photocopying				2,000		2,000	
Total Supplies			0	2,000	0	2,000	
6 Contractual							
Vendor fixed -bid				148,000		148,000	used to plan, develop and perform training
Total Contractual			0	148,000	0	148,000	
Construction							
not applicable							
Total Construction			0	0	0	0	
8 Other							
not applicable							
Total Other			0	0	0	0	
9 Total Direct Costs (lines 1-8)			0	150,000	0	150,000	
10 Indirect Costs (12.5%)			0	18,750	0	18,750	
11 Training Stipends			0	0	0	0	
12 Total Costs (lines 9-11)			0	168,750	0	168,750	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Outcome #5.1 Assessing STEM post-graduate student regional work retention research

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel							
not applicable							
<i>Total Personnel</i>			0	0	0	0	
2 Fringe Benefits							
not applicable							
<i>Total Fringe Benefits</i>			0	0	0	0	
3 Travel							
not applicable							
<i>Total Travel</i>			0	0	0	0	
4 Equipment							
not applicable							
<i>Total Equipment</i>			0	0	0	0	
5 Supplies							
not applicable							
<i>Total Supplies</i>			0	0	0	0	
6 Contractual							
not applicable							
<i>Total Contractual</i>			0	0	0	0	
7 Construction							
not applicable							
<i>Total Construction</i>			0	0	0	0	
8 Other							
not applicable							
<i>Total Other</i>			0	0	0	0	
9 Total Direct Costs (lines 1-8)			0	0	0	0	
10 Indirect Costs (12.5%)			0	0	0	0	
11 Training Stipends			25,000	25,000	0	50,000	for graduate student researcher
12 Total Costs (lines 9-11)			25,000	25,000	0	50,000	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

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

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel							
not applicable							
<i>Total Personnel</i>			0	0	0	0	0
2 Fringe Benefits							
not applicable							
<i>Total Fringe Benefits</i>			0	0	0	0	0
3 Travel							
not applicable							
<i>Total Travel</i>			0	0	0	0	0
4 Equipment							
not applicable							
<i>Total Equipment</i>			0	0	0	0	0
5 Supplies							
not applicable							
<i>Total Supplies</i>			0	0	0	0	0
6 Contractual							
not applicable							
<i>Total Contractual</i>			0	0	0	0	0
7 Construction							
not applicable							
<i>Total Construction</i>			0	0	0	0	0
8 Other							
not applicable							
<i>Total Other</i>			0	0	0	0	0
9 <i>Total Direct Costs (lines 1-8)</i>			0	0	0	0	0
10 <i>Indirect Costs (12.5%)</i>			0	0	0	0	0
11 <i>Training Stipends</i>			25000	25000	0	50000	for graduate student
12 <i>Total Costs (lines 9-11)</i>			25,000	25,000	0	50,000	50000 researcher

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Outcome #5.3 Assessing training and retention of early childhood workforce in Maryland

Contractor	Salary/ Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1	Personnel						
	not applicable						
	Total Personnel		0	0	0	0	
2	Fringe Benefits						
	not applicable						
	Total Fringe Benefits		0	0	0	0	
3	Travel						
	not applicable						
	Total Travel		0	0	0	0	
4	Equipment						
	not applicable						
	Total Equipment		0	0	0	0	
5	Supplies						
	not applicable						
	Total Supplies		0	0	0	0	
6	Contractual						
	not applicable						
	Total Contractual		0	0	0	0	
7	Construction						
	not applicable						
	Total Construction		0	0	0	0	
8	Other						
	not applicable						
	Total Other		0	0	0	0	
9	Total Direct Costs (lines 1-8)		0	0	0	0	
10	Indirect Costs (12.5%)		0	0	0	0	
11	Training Stipends		25,000	25,000	0	50,000	for graduate student researcher
12	Total Costs (lines 9-11)		25,000	25,000	0	50,000	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Outcome #6.1 Project Management

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel							
not applicable							
Total Personnel			0	0	0	0	
2 Fringe Benefits							
not applicable							
Total Fringe Benefits			0	0	0	0	
3 Travel							
not applicable							
Total Travel			0	0	0	0	
Equipment							
not applicable							
Total Equipment			0	0	0	0	
5 Supplies							
not applicable							
Total Supplies			0	0	0	0	
6 Contractual							
Project manager \$115-\$125 hr		1	215,660	215,660	150,000		
							based on 2080 work year
Total Contractual			215,660	215,660	150,000	581,320	
7 Construction							
not applicable							
Total Construction			0	0	0	0	
8 Other							
not applicable							
Total Other			0	0	0	0	
9 Total Direct Costs (lines 1-8)			215,660	215,660	150,000	581,320	
10 Indirect Costs (12.5%)			26,958	26,958	18,750	72,665	
11 Training Stipends			0	0	0	0	
12 Total Costs (lines 9-11)			242,618	242,618	168,750	653,985	

12.5% Indirect Cost rate (percentage applied to Contractual and Supplies)

Maryland LDS Grant Budget

Grand Total All Outcomes

Contractor/ Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
1 Personnel		0	0	0	0	
Total Personnel		0	0	0	0	
2 Fringe Benefits		0	0	0	0	
Total Fringe Benefits		0	0	0	0	
3 Travel		0	0	0	0	
Total Fringe Benefits		0	0	0	0	
4 Equipment		1,000	7,000	7,000	15,000	
Total Travel		1,000	7,000	7,000	15,000	
5 Supplies		490,000	350,000	0	840,000	
Total Equipment		490,000	350,000	0	840,000	
6 Contractual		500	4,000	1,000	5,500	
Total Supplies		500	4,000	1,000	5,500	
Total Contractual		1,291,260	964,660	155,000	2,410,920	
7 Construction					0	
Total Construction		0	0	0	0	
8 Other					0	
Total Other		0	0	0	0	
9 Total Direct Costs (lines 1-8)		1,782,760	1,325,660	163,000	3,271,420	
10 Indirect Costs (12.5%)		161,470	121,083	19,500	302,053	
11 Training Stipends		75,000	195,000	120,000	390,000	
12 Total Costs (lines 9-11)		2,019,230	1,641,743	302,500	3,963,473	

Maryland LDS Grant Budget

Grand Total Objective 1

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
9	Total Direct Costs (lines 1-8)		497,100	727,000	0	1,224,100	
10	Indirect Costs (12.5%)		62,013	47,125	0	109,138	
11	Training Stipends		0	0	0	0	
12	Total Costs (lines 9-11)		559,113	774,125	0	1,333,238	

Maryland LDS Grant Budget

Grand Total Objective 2

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
9	Total Direct Costs (lines 1-8)		850,000	0	0	850,000	
10	Indirect Costs (12.5%)		45,000	0	0	45,000	
11	Training Stipends		0	0	0	0	
12	Total Costs (lines 9-11)		895,000	0	0	895,000	

Maryland LDS Grant Budget

Grand Total Objective 3

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year 1	Year 2	Year 3	3-Year Total	Additional Notes
9	Total Direct Costs (lines 1-8)		220,000	220,000	0	440,000	
10	Indirect Costs (12.5%)		27,500	27,500	0	55,000	
11	Training Stipends		0	0	0	0	
12	Total Costs (lines 9-11)		247,500	247,500	0	495,000	

Maryland LDS Grant Budget

Grand Total Objective 4

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year			3-Year Total	Additional Notes
			Year 1	Year 2	Year 3		
9	Total Direct Costs (lines 1-8)		0	163,000	13,000	176,000	
10	Indirect Costs (12.5%)		0	19,500	750	20,250	
11	Training Stipends		0	120,000	120,000	240,000	
12	Total Costs (lines 9-11)		0	302,500	133,750	436,250	

Maryland LDS Grant Budget

Grand Total Objective 5

	Salary/ Contractor Annual Rate/ Unit Cost	FTE %	Year			3-Year Total	Additional Notes
			Year 1	Year 2	Year 3		
9	Total Direct Costs (lines 1-8)		0	0	0	0	
10	Indirect Costs (12.5%)		0	0	0	0	
11	Training Stipends		75,000	75,000	0	150,000	
12	Total Costs (lines 9-11)		75,000	75,000	0	150,000	

ASSURANCES - NON-CONSTRUCTION PROGRAMS

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 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 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.

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 subagreements.
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 (Clean Air) Implementation Plans under Section 176(c) of the Clean 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. §§1271 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 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.

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> <p>(b)(6)</p>	<p>* TITLE</p> <p>Interim State Superintendent of Schools</p>
<p>* APPLICANT ORGANIZATION</p> <p>Maryland State Department of Education</p>	<p>* DATE SUBMITTED</p> <p>12-13-11</p>

Standard Form 424B (Rev. 7-97) Back

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 an 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 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 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 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Maryland State Department of Education</div>	
* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Prefix: <div style="border: 1px solid black; padding: 2px; width: 80px;">Dr.</div>	* First Name: <div style="border: 1px solid black; padding: 2px; width: 200px;">Bernard</div> Middle Name: <div style="border: 1px solid black; padding: 2px; width: 80px;">J.</div>
* Last Name: <div style="border: 1px solid black; padding: 2px; width: 350px;">Sadusky</div>	Suffix: <div style="border: 1px solid black; padding: 2px; width: 80px;"></div>
* Title: <div style="border: 1px solid black; padding: 2px; width: 300px;">Interim State Superintendent of Schools</div>	
* SIGNATURE: <div style="background-color: yellow; border: 1px solid black; padding: 5px; width: 250px; display: inline-block;">(b)(6)</div>	* DATE: <div style="font-family: cursive; font-size: 1.2em; margin-left: 20px;">12-13-11</div>

DISCLOSURE OF LOBBYING ACTIVITIES

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

Approved by OMB

0348-0046

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. Initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name: N/A * Street 1: N/A Street 2: _____ * City: N/A State: _____ Zip: _____ Congressional District, if known: _____		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: N/A	7. * Federal Program Name/Description: Statewide Data Systems CFDA Number, if applicable: 84.372	
8. Federal Action Number, if known: 	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant: Prefix: _____ * First Name: N/A Middle Name: _____ * Last Name: N/A Suffix: _____ * Street 1: _____ Street 2: _____ * City: _____ State: _____ Zip: _____		
b. Individual Performing Services (including address if different from No. 10a) Prefix: _____ * First Name: N/A Middle Name: N/A * Last Name: N/A Suffix: _____ * Street 1: _____ Street 2: _____ * City: _____ State: _____ Zip: _____		
11. 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 the 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.		
* Signature: (b)(6)		
* Name: Prefix: Dr. * First Name: Bernard Middle Name: J. * Last Name: Sadusky Suffix: _____		
Title: Interim State Superintendent of Schools Telephone No.: 410-767-0461 Date: _____		

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