IES PRS

Application Profile

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Organization Information

Organization Name: Maryland State Department of Education

Organization Unit: Division of Special Education/Early Intervention Servi

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Baltimore, MD 21201 **Country:** United States of America

Project Director Name and Information

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Collaboration Organization(s)

Organization Name	Organization Type	State	Country	Key Personnel	Role on Project
Johns Hopkins Universtity/Center For Technology in Education	Public College or University	MD	United States of America	Nunn, Jacqueline	Co-Director

Application Title

Maryland Longitudinal Data System

State Identifier N/A

Period of Performance **Project Begin Date:** 11/01/2005 **Project End Date:** 10/31/2008

Abstract

1. Title: Maryland Longitudinal Data System (MLDS) 2. The RFA goal: The Maryland State Department of Education (MSDE) in partnership with the Center for Technology in Education (CTE) at the Johns Hopkins University and its technical development team, DataLab USA, and in cooperation with expert advisors, key stakeholders, and partner school systems, propose to collaboratively design, build, and implement a statewide longitudinal data system that will be used to assist MD educators and other key stakeholders in making decisions that will improve education and increase student achievement.3. The potential contribution the project will make to education: The MSDE/CTE team will design, build, and deliver a longitudinal data system that includes a unique student identifier and that is accompanied by decision-support tools and high-quality professional development resulting in: 1) improved teaching and increased student achievement for all of MD's children; 2) increased accuracy and timeliness of local, state, and federal reporting and; 3) enhanced understanding of educational issues using longitudinal data for research and decision-making.4. The population(s) from which the participants of the study(ies) will be sampled: The primary purpose for building the data system is to help MD's students* (877,512 from 0-21 years of age), educators, and other key stakeholders use data to make decisions that will improve students performance and close the achievement gaps among sub-groups of children and youth--to include students with limited English language proficiency (29,568), students living in poverty (278,306), students with disabilities (111,565) and infants and toddlers (12,051). Year 1 will focus on a study of students with disabilities since approximately 58% of the 173 schools in MD that were rated as not making adequate yearly progress fell short because of the lack of progress by their students with disabilities. *2004 school year public school students 865,561: American Indian/Alaskan Native – 3,372, Asian/Pacific Islander- 42,215, African American- 329,526, White- 438,450, Hispanic 55,550 5. The research method:The research outcomes from the MLDS are: 1.)Improve teaching and student achievement.2.) Improve instruction, enhance programs and services, and inform policy through the delivery of high-quality professional development and technical assistance to local school systems.3.)Increase accuracy and timeliness of local, state, and federal reporting.4.)Provide research and decision-making tools that leads to better understanding of educational issues and the implementation of effective strategies that comply with Federal, State, FERPA, and COMAR regulations for privacy.5.)Improve programs and interventions for children through the use of analytic models.6.)Share information and data across institutions within the state and across states.7.)Sustain MD's statewide longitudinal data system.6. The intervention:The MLDS project team will design and build analytic models and reporting tools to mine data in order to improve programs, processes, and interventions for children. While specific research questions and issues that need to be explored will be defined by the stakeholders during the requirements phase of this project, the results of the recent MD Assessment Program will provide direction to the group. Further, the linkage of assessment scores and longitudinal data through a unique student identifier will provide the means through which the data will be mined.

Human Subjects:	No	Exempt from Regulations:	No	Exemption #:		Assurance #:	

Exempt Narrative:

Non-Exempt Narrative:

Estimated Funding

Federal:	$5,953,747.00	Local:	$0.00		
Applicant:	$0.00	Other:	$0.00	Total:	$5,953,747.00
State:	$0.00	Program Income:	$0.00		

Federal Budget

Budget Categories	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. Personnel	$261,500.00	$269,345.00	$277,425.00	$0.00	$0.00	$808,270.00
2. Fringe Benefits	$65,375.00	$67,336.00	$69,356.00	$0.00	$0.00	$202,067.00
3. Travel	$800.00	$800.00	$800.00	$0.00	$0.00	$2,400.00
4. Equipment	$7,000.00	$0.00	$0.00	$0.00	$0.00	$7,000.00
5. Supplies	$5,000.00	$5,000.00	$5,000.00	$0.00	$0.00	$15,000.00
6. Contractual	$1,621,590.00	$1,552,905.00	$1,567,092.00	$0.00	$0.00	$4,741,587.00
7. Construction	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8. Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
9. Total Direct Costs	$1,961,265.00	$1,895,386.00	$1,919,673.00	$0.00	$0.00	$5,776,324.00
10. Indirect Costs	$36,262.00	$70,030.00	$71,131.00	$0.00	$0.00	$177,423.00
11. Training Stipends	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
12. Total Costs	$1,997,527.00	$1,965,416.00	$1,990,804.00	$0.00	$0.00	$5,953,747.00

Non-Federal Budget

Budget Categories	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. Personnel						
2. Fringe Benefits						
3. Travel						
4. Equipment						
5. Supplies						
6. Contractual						
7. Construction						
8. Other						
9. Total Direct Costs						
10. Indirect Costs						
11. Training Stipends						
12. Total Costs						

Application Details

D-U-N-S Number:	(b)(2)	T-I-N:	52-6002033	Duration (years):	3

Any Federal Debt:	No	Specify:	
Type of Applicant:	State	If Other, Specify:	

Authorized Representative Information

AR Name	AR Address	AR Phone	AR Fax	AR E-mail	Primary:
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Section E. Project Narrative

The Maryland State Department of Education (MSDE) in partnership with the Center for Technology in Education (CTE) at the Johns Hopkins University and its technical development team, DataLab USA, and in cooperation with expert advisors, key stakeholders, and partner school systems, propose to collaboratively design, build, and implement a statewide longitudinal data system that will be used to assist Maryland educators and other key stakeholders in making decisions that will improve education and increase student achievement.

This project will build on the work of the partners who have been successfully collaborating for the past 18 years (See Project Personnel section of this narrative). Most recently, MSDE and CTE have worked together to develop and implement online dynamic data systems that bring high-quality information to Maryland educators in a timely manner. In 2002, the technical development group DataLab USA teamed up with CTE to bring additional strength to the partnership. Highlights of recent accomplishments include creating online versions of: the Special Education Data Warehouse; the Maryland Infant and Toddlers Family Service Plan (IFSP); and, the Maryland Individualized Education Program (IEP).

Building on these successes, **the MSDE/CTE team is prepared to deliver a longitudinal data system** accompanied by decision-support tools and high-quality professional development that will result in: 1) improved teaching and increased student achievement for all of Maryland's children, especially those living in poverty, those with limited English language proficiency, and those with disabilities; 2) increased accuracy and timeliness of local, state, and federal reporting; and; 3) enhanced understanding of educational issues using longitudinal data for research and decision-making.

(1) Need for Project

The significance of this project is clear given recent legislation, particularly the No Child Left Behind Act of 2001(NCLB), that has raised the bar on accountability standards in education and the implications of those changes for administrators and teachers striving to improve educational outcomes for all students. Educators are facing increased pressure to both employ effective strategies that help students meet high curriculum standards and to prove that their methods are working. This has introduced a concomitant challenge to determine appropriate methods for collecting and analyzing data, both inherently complex processes, at the class, school, district, and state levels.

Under NCLB, schools must show progress in both reading and mathematics across all grade levels and in all race/ethnicity and special services categories—special education, limited English proficient, and economically disadvantaged students. Unfortunately, in Maryland many schools have fallen short of reaching Adequate Yearly Progress (AYP) for subgroup populations. In fact of the 173 schools in Maryland that did not make AYP, over 100 schools missed their goals because of the lack of progress by their students with disabilities.

These recently published results point to a clearly identified need to assist classroom teachers, school-based leaders, and district and state administrators in helping all students, especially those

receiving special education services, to become proficient in reading and math. Recognizing the importance of using this data to drive improvement in achievement, State Superintendent of Schools Nancy S. Grasmick, makes available all state-wide data on the Maryland State Department of Education's report card Web site, www.mdreportcard.org. However, MSDE's data has been largely **limited to "snapshot" data**—information that has been gathered at a **"point-in-time,"** usually on an annual basis. By the time the data gets into the hands of the classroom teacher, it is **too late to use the information to inform changes in instructional strategies that would drive improvements in student achievement.** The diagram in Appendix B, page 75 displays all of the individual data collection systems that are currently employed by MSDE.

In addition to not being timely, **the data is not linked**. While Maryland collects data on important outcome factors e.g. achievement, attendance, free and reduced meals, students with disabilities, the State's inability to the link the data in these individual data collection silos dramatically reduces key stakeholders' abilities to use the data for decisions regarding educational policies, programs, services, individual student planning, and resource allocation.

Another significant drawback to Maryland's existing individual data collection systems is that MSDE is **not able to follow students over time**. ***Maryland has been identified by the Education Commission of the States as being one of four states that have not implemented statewide longitudinal linkage of student data tracking.*** A longitudinal data system is required in order to perform analyses of trend data on individual students, subgroups of students, and long-term impact of programs. It is also important to **explore memorandums of agreement with neighboring states** in order to be able to transfer student-level data to maintain complete, accurate student-level files.

According to the Education Commission of the States, Issue Brief Accountability (K-12) http://www.ecs.org/clearinghouse/40/21/4021.htm, benefits from a state-wide longitudinal data system can answer significant questions including:

- How well do students do who have been enrolled in this school or program for more than one year?
- How does the success of students enrolled in this school for three years or longer compare with that of students enrolled for three years in the highest-performing comparable schools?
- How do the graduates of this elementary school do in middle school?
- How well do the graduates of this high school do in college?
- How well do students perform at the end of their enrollment in this school compared with how they were performing when they arrived?
- How many students who were "average" when they entered high school end up taking Advanced Placement courses?

This list is not exhaustive. MSDE must explore the questions that are of the highest priority and pertinent to the stakeholders in Maryland. Focus groups, interviews, and other market intelligence will need to be conducted in order to ascertain the direction that Maryland will take in gathering, researching, and reporting data to drive positive changes in education outcomes.

Maryland administrators are keenly aware of the value and need for longitudinal student data. Longitudinal data will allow educators and leaders in Maryland to:

- Review the impact of the implementation of Maryland's Voluntary State Curriculum
- Determine which strategies, programs, and services work—and which don't work
- Examine the impact of early intervention programs for children with disabilities on their future educational achievement
- Identify schools with interventions that are making a difference
- Provide information on which schools and educators are making the most academic progress
- Use data to conduct research and make decisions that lead to the implementation of effective strategies based on those decisions

Building a longitudinal student data system is not enough to meet Maryland's needs. State and local leaders must learn and understand how to access and use the data effectively to make changes in instructional strategies and programs that will improve student achievement. High-quality professional development, focused on the full array of data-driven decision making processes, will be an essential element to meet this need.

MSDE understands the implicit need to ensure that its longitudinal student data system and all accompanying research complies with Federal, State, and FERPA regulations for privacy and that the system can be sustained over time. Resultant reports from the proposed high-quality, linked, longitudinal data system need to extend beyond the monitoring and reporting of State and local program improvement efforts to meet increased compliance with Federal requirements. MSDE recognizes that program improvement and effectiveness is a combination of both compliance with requirements *and* ***achievement of positive outcomes for students.***

(2) Project Design

Required System Components

Over the past decade, the U.S. Department of Education and the State of Maryland, in coordination with local school systems, have established and mandated widespread student, teacher, and program-level data collection activities. Most of these numerous data collection initiatives exhibit well-defined record layouts, consistent coding conventions, and efficient submission procedures. The resulting data silos have been effectively utilized for research and reporting purposes within the narrow scope under which they were originally created.

The Maryland State Department of Education recognizes the strengths and limitations of its current data collection initiatives. The State's vision for linking its rich data silos vertically (between the state, county and local school levels), horizontally (across departments, programs, and data sources), and longitudinally (over time), stands at the center of this proposal.

I. Unique Student Identifier

The primary limitation of Maryland's current system of data warehousing is the lack of a statewide unique student identification number. In going forward, Maryland recognizes the need for implementing a unique identification number for each student, and initial groundwork and research has been undertaken to establish such an identifier. Doing so will dramatically increase the state's ability to conduct research and data-driven decision making across disparate sources

of data, track students as they move from one school to another, and examine student data over the course of their school careers and beyond. The implementation of a unique identifier stands at the cornerstone of Maryland's vision for a statewide, longitudinal data warehouse.

The resulting product of this effort will be a powerful new methodology and protocols for assigning unique student identifiers, an extremely useful outcome even if no further work was carried out. The development and application of this methodology at the state and local levels will lay critical groundwork for future enhancements to Maryland's data infrastructure.

II. Enterprise-Wide Data Architecture

Maryland's longitudinal data system will functionally relate all new and existing data silos (see Appendix B., page 76). A comprehensive review of student, teacher, and program-level data sources has been conducted, and will serve as the basis for the underlying matrix of data repositories. A database diagram detailing how each source will plug-in to the Maryland Longitudinal Data System (MLDS) will be developed during the initial stages of the project. Key stakeholders, including parents, teachers, local administrators, the business community, and state educational leaders will be consulted in the conceptual design of the system's architecture.

The enterprise-wide data architecture will support acceptance of data at any interval or frequency as determined by the state. To the extent possible, the MLDS will automate the population and validation of the data warehouse freeing local and state data managers to more effectively utilize the data for research and decision making. The system will apply a sophisticated error-checking and validation module to accurately and efficiently identify errors and duplicate records.

The products resulting from this effort will include the validated catalog of data collections, a data architecture, data model and data dictionary, which will together serve as the roadmap for the creation of the data warehouse. These products are essential to the development of the MLDS data warehouse, but will also have stand-alone value as documentation for all of the state's data collections and integration points. A common data architecture, model, and dictionary will provide critical standardization across existing applications and data collections.

III. Security, Confidentiality, and Integrity of the Data

The system will be protected by state-of-the-art security technologies and protocols. Multiple firewall layers, both hardware and software, will counter any attempts at outside intrusion. Outside security consultants will be retained to attempt external intrusion and report potential vulnerabilities. The system will be hosted in a climate-controlled, highly secure data center under 24 hour surveillance. Physical access to the system will be restricted to network and data administrators. An electronic log will record all instances of system and data access.

Within the system itself, access to data will be controlled at a granular level according to a user's role and security permissions. Low-level users will have access only to data within their school or county as appropriate for their job responsibilities. User accounts and permission levels will be controlled by data warehouse managers at the state level. Personally-identifiable student data will be restricted to those who require access in order to perform official, professional duties.

Full system file and data backups will be conducted nightly to ensure data integrity and prevent data loss in the event of catastrophic system failure. In addition, the server environment will include built-in storage redundancy to improve performance and reduce the amount of down-time resulting from drive failure. An existing robust security model, developed to serve the Maryland Online IEP system, will be extended and adapted for use in the MLDS.

IV. Vertical Integration of Local and State Data Collections

Maryland's primary interest in creating a statewide data warehouse is to allow for longitudinal research and decision-making capacity, rather than providing clerical linkages between state and local administrative databases. Mandatory data collection practices currently considered effective will be maintained, while emphasis will be placed on improving how the data is stored, organized, indexed, linked, related, and queried at the data warehouse level. The implementation of a unique statewide student identifier, however, will greatly enhance the future potential for additional integration between school, county, and state databases. Secure and robust protocols for data transmission will be developed, tested, and implemented in all local school systems.

The products or deliverables resulting from this effort will include the selection, design, and implementation of secure and robust protocols for data transmission between the state and local levels. This design will have considerable utility to Maryland for secure data transmissions to and from the State, independent of the development of the longitudinal data system.

V. Data-Warehouse for Managing and Storing Longitudinally Linked Data

In embracing a vision for a statewide data warehouse, one that longitudinally links educational data across many sources, Maryland's educational leaders are convinced its data can be more effectively utilized for research and decision-making. The warehouse envisioned will exist in a continual 'ready state' for sophisticated querying and reporting across data sources in a manner that was previously not possible. The new system will tie together currently existing, independent data silos (see Appendix B., page 76), allowing for vertical, horizontal, and longitudinal relational querying. The warehouse will be visually mapped to provide decision makers with a conceptual understanding of the underlying data silos, the data therein, and the relationships between the data sources. Sophisticated but easy-to-use querying and reporting tools will be developed for use by state and local decision makers. In addition, pre-defined queries and reports will be created to address the requirements of the stakeholder community.

The products or deliverables resulting from this effort will include the physical data warehouse, which will serve as the foundation for the MLDS and as a model for other, related systems and future enhancements. In addition to the data warehouse, the design of the system's query interface and reporting functions will have broad applicability to other data repositories maintained by the State.

Core Elements: Project Goals and Objectives

The core elements of this project are organized into the following eight goals and accompanying objectives.

Goal 1: Analyze business, decision-making, and research needs of key stakeholders.

The guidance and contributions of key stakeholders from Maryland will be a critical component to the success of this project. Historically, the Maryland State Department of Education (MSDE) has always included stakeholders as advisors to the many initiatives it undertakes. For this project, a Stakeholder Advisory Committee will be formed with representatives from all levels (classroom, school, and district) of local school systems, Maryland State child service agencies, higher education, business community, parents, and students. This broad spectrum of stakeholders with diverse backgrounds will ensure a thorough and balanced approach to data-driven decision-making tasks and outcomes.

The approach to analyzing business, decision-making, and research needs of key stakeholders will begin with conceptual considerations and decisions related to defining the key questions of stakeholders. While the Education Commission of the States (ECS) has issued a brief titled, "A Policymaker's Guide to the Value of Longitudinal Student Data," this document does not provide in-depth focus into the specific needs of Maryland's stakeholders.

Objective 1.1: Establish the Stakeholder Advisory Committee.

The project team will establish a Stakeholder Advisory Committee to participate in requirement definitions, study reviews, design and prototype validation, definition of research questions, implementation and sustainability, planning and to contribute to both formative and summative activities. This committee will be active for the duration of the project and beyond. (See Management Plan)

Objective 1.2: Establish sub-committees of the Stakeholder Advisory Committee.

The project team will establish sub-committees, with representatives from the Stakeholder Advisory Committee, to address areas including but not limited to project planning, piloting new processes and tools, evaluation, and sustainability.

Objective 1.3 Conduct stakeholder intelligence gathering related to key data questions.

Individual interviews, focus groups, and survey methodologies will be employed to gather information and prioritize the key questions that will drive decision-making. Results will be utilized in key decision-making to shape both data mining efforts and public release of aggregated data reports.

Goal 2: Catalog current and planned local data collection methods and data structures.

Current MSDE data collection methods at the local and state levels have been catalogued with accompanying documentation. A summary of student level data that is being collected is in Appendix B Optional Attachments. This information will be validated at the beginning of the project. State and local methods and processes for collecting new data (identified by stakeholders) that will support the design, creation, and implementation of Maryland's Longitudinal Data System (MLDS) will incorporate a unique student identifier system to support relational data queries and links to new sub-group data sets.

Goal 3: Design the Maryland Longitudinal Data System (MLDS) architecture.
The research and decision-making needs of the key stakeholders will drive the design of the MLDS architecture and determine the data elements as well as the extent of the historical data that needs to be maintained. Specifically, the design will include the development of quality assurance measures; the creation of logical and physical relationships between data systems; the implementation of confidentiality processes in compliance with FERPA and state COMAR; the development of a structure for researchers and decision-makers to mine data for time-based analysis; the capacity for cross-referencing data silos to ensure accuracy; and the ability to modify and expand the system over time.

Currently the MSDE data warehouse contains data silos which have well-defined content and common definitions for data elements that assure the same definitions and codes across all schools in the state. Further, the data is collected at specific data entry points and conforms to business rules for data format, acceptable values, and missing data options. While the data is of high quality there is no single unique student ID or methodology to link all of the data systems to support research and decision-making.

Objective 3.1: Identify research and decision-making needs of key stakeholders.
Individual interviews, focus groups, and survey methodologies will be employed to gather information regarding the data elements, functionality, and usability of the MLDS.

Objective 3.2: Develop a robust quality assurance system.
The quality assurance system will include: (a) a data dictionary of definitions, codes, and periodicity across schools that builds upon the already well defined content and definitions in Maryland's existing data silos; (b) processes that conform to business rules for data format, acceptable values, and missing data options; (c) automated data verification system to assure high quality data; and (d) end user systems and procedures to ensure effective utilization of MLDS.

Objective 3.3: Create the logical and physical relationships between data systems.
The system architecture will define and describe the logical and physical relationships between data silos and the data items contained in these silos. The architectural structure will: (a) allow for the population of the new longitudinal data system with the data from the existing silos, going back in time where available, and (b) establish programmatic procedures to continue to transfer data from the silos to the longitudinal data system when such data becomes available through Maryland's existing data collection processes.

Objective 3.4: Implement confidentiality processes in compliance with Federal, State and FERPA requirements.
The longitudinal data system will be designed to allow for efficient data maintenance and retrieval (containing relevant and linked current and historical data) through secure access to data and formal reports in compliance with FERPA and State COMAR and that will guarantee the statistical reliability of results.

This data model will be developed and implemented on a secure PC server-based environment using a SQL server as the database management software. The data maintenance process will utilize a tightly structured Windows 2003 security plan. Data retrieval and reporting will utilize a customized hierarchical security schema that will only allow user access to data as designated by the key stakeholders. This security scheme will be managed via a Web interface using a tree-based structure.

Objective 3.5: Develop a structure to enable researchers and decision-makers to mine the data for time-based analysis.
The system architecture will provide a structure that will allow for easy retrieval of data across all units of analysis such as student (or student characteristics, i.e., disabilities, truancies, etc.), class, school, district, and State and all units of time. An important aspect of research and data mining is to have the proper unit of analysis and sound statistical methodologies. The MLDS will incorporate these important features.

Objective 3.6: Design the system architecture using methodologies so that it can be modified and expanded over time.
The underlying system architecture is a relational database. The methodologies used in design will ensure that the architecture is scalable. Future data, either in the form of additional data for existing data tables or new data tables will be able to be incorporated without major changes to the underlying system architecture.

Goal 4: Create, assign, and track a unique, permanent student identifier at the State level and share data among states.
A unique, permanent student identifier is crucial to the success of Maryland's Longitudinal Data System. The system will have the capacity to match individual student records across existing data files and years for every student enrolled in the birth-12 state education system and beyond. Linking student records will allow school leaders, researchers, state and district administrators and other stakeholders in Maryland the ability to conduct research and evaluate programs to determine the effects of variables from relational links or disparate databases on student achievement. The unique student identifier concepts will be shared across neighboring states in order to test the feasibility of transferring student records among states.

Objective 4.1: Create a unique, permanent student identifier system at the State level.
A unique identifier will be assigned at the State level utilizing the enrollment rosters made available to the State by the local jurisdictions. This approach to assigning a unique student ID is based on a prototype that was completed in January 2005. MSDE, in partnership with CTE and DataLab USA, discovered that the creation and assignment of a unique, permanent student identifier is facilitated by the fact that 99.9% of the students can be uniquely identified by using the student's name and birth date. For the 0.1% of student population where there is ambiguity, a web-based user interface will allow a local jurisdiction to either correct the student data or add further qualifiers to uniquely identify each student. This design places a relatively minor burden on the local jurisdiction with regard to implication of the local student information systems. It does not preclude a local jurisdiction from adopting a state-wide unique student identifier within the local student information system. For additional information, please read Appendix B.

Objective 4.2: Design the unique student identifier system to support research and program evaluation.
The MLDS team will ensure that the unique student ID system will link students' records in order for school leaders, researchers, State and district administrators and other stakeholders in Maryland to possess the ability to conduct research and to evaluate programs to determine the effects of various variables on student achievement across relational links. The system will allow for program evaluation from early childhood intervention through grade 12. As post-secondary data is added to MLDS, students will be able to be tracked beyond grade 12. Maryland is participating in a 10-year transition longitudinal study that will facilitate linkages to students exiting the State education system. Maryland collects anticipated service delivery data for all students with disabilities exiting the system.

Objective 4.3: Test the feasibility of transferring student records among states.
The MLDS team will initially collaborate with Delaware and Virginia to explore the development of inter-state agreements that are compliant with FERPA regulations and Schools Interoperability Framework (SIF) standards. This collaboration will include sharing unique student identifier concepts, developing a technical prototype, and creating policies, processes, and procedures to facilitate the creation and implementation of a student record transfer system.

Goal 5: Plan and implement statewide data collection systems.
In 2003, Maryland was recognized as one of the first states in the nation to receive full approval of its plan to reach the goals set forth by the NCLB Act. The swift approval of Maryland's plan was made possible by the state's history of involvement in standards and accountability measures. Maryland already issued school and system report cards which became a mandate under NCLB.

Clearly, MSDE acknowledges that planning and implementing a statewide accountability system is an important component to ensure success and buy-in from local school systems. The MLDS team will collaborate with local systems to design implementation plans. Start-up resources have been allocated in the grant to support districts where their capacity to implement the system is limited.

Objective 5.1: Develop a data collection system that is logistically and economically feasible for all local school systems in Maryland.
The MLDS team will conduct cost/benefit and sustainability analyses in order to demonstrate to local school systems the benefits of a comprehensive longitudinal data system that will assist them in decision-making for program improvement. Processes that are employed in the research detailed in objectives 5.2 and 5.3 will be used as a starting point to inform the specific focus of the feasibility research in this objective. Interviews and focus groups will be held with key stakeholders as part of the methodology.

Objective 5.2: Conduct cost/benefit and sustainability analysis.
At present, MSDE data collections are either cumulative or static, but all are submitted through a file transfer protocol (FTP). A cost/benefit analyses will be conducted to determine the benefits of dynamic data-entry versus static (FTP) entry. MSDE and CTE have created an online Individualized Education Plan (IEP), a dynamic system. The local school systems that are using

this online system are able to directly enter individual student-level data that aggregates to a higher level for State and federal reporting. Maryland's new online IEP system has instantaneous error feedback and also relieves those school systems of the burden of entering their data into the annual SSIS data collection system (static collection). Findings will be used to inform the MLDS system as applicable.

Objective 5.3: Evaluate the reporting methodology for the Work Sampling (WSS) Assessment system for young children.
A few local school districts use an online version of the Work Sampling System (WSS) to assess the readiness of children entering Kindergarten. It is commonly held knowledge that the direct entry of this assessment data increases accuracy and decreases reporting time. This theory will be evaluated by comparing the online WSS system to the manual WSS data entry and reporting process for two similarly-sized local school systems.

Goal 6: Develop and implement the MLDS.
The MLDS team will develop the statewide longitudinal data system according to the architecture design referred to in Goal 3, test the system, and implement the system within local school districts in Maryland.

MSDE, CTE, and DataLab USA have partnered in the development, testing, and implementation of an online Individualized Family Services Plan (IFSP) and an online Individualized Education Plan (IEP). Their experience and expertise has led to the successful implementation and use of these online products that has reinforced improved decision-making among local leaders. In addition, these partners are building an online Student Services Information System (SSIS). The new online SSIS will automatically load and cleanse files. This includes built-in automated error checks that are reported to local jurisdictions in real time to better improve the speed at which data is available at the State level.

Objective 6.1: Develop Maryland's longitudinal data system in accordance with the designed architecture described under Goal 3.
The creation of the statewide longitudinal data system (warehouse) comprises the following activities:

- Build a cross-reference table from enrollment rosters that equates a student's name and birth date with a unique identifier.
- Build a student history table with respect to the dates a student was enrolled in a particular school.
- Develop an online interface.
- Propagate the unique identifier to MLDS.
- Populate all associated tables within the warehouse either with historical data feeds or new data feeds when they become available.
- Develop an online interface for the administration of secure access to the data warehouse.
- Design and develop appropriate backup systems and systems administration security.
- Develop processes for the updating of the warehouse as new data feeds become available.
- Develop retrieval processes for either research purposes or decision-making.
- Develop generalized query tools.
- Develop predefined reports for all stake holders.

Objective 6.2: Develop and Implement the MLDS Test Plan
A test plan will be written to document the test procedures and validation methods. Several levels of testing will take place including pilot testing, integration system testing, and volume testing. The test plan will be developed at the end of the Requirements Phase to ensure requirements traceability throughout the project. Data validation becomes the activity of an audit process. The audit process will be conducted in designated local jurisdictions by comparing samples of data maintained at local jurisdictions to data maintained in the data warehouse. The audit process shall be repeated on a periodic basis to assure the quality of the data. MLDS functions to be tested will include:

- Cross-reference table; student history table; online interface
- Unique identifier to all input files that feed the statewide longitudinal data system and all associated tables within the warehouse either with historical data feeds or new data feeds when they become available
- Online interface for the administration of secure access to the data warehouse
- Backup systems and systems administration security and processes for the updating of the warehouse as new data feeds become available
- Retrieval process for either research purposes or decision-making generalized query tools and predefined reports for all stake holders.

Objective 6.3: Implement MLDS.
Upon satisfactory completion of system testing, the statewide longitudinal data system is ready to go live. It is important for users to understand that the statewide longitudinal data system is not a real-time application by design. When accessing the system for research and decision-making, it is essential that researchers and decision-makers understand the time state of the data warehouse. As the data warehouse is fed via existing well-known data collections, the design inherits the time state of the existing data feeds.

MLDS will be implemented in phases to ensure that all user groups have received professional development prior to using the system. Refer to Goals 7 and 8 for details on professional development and technical assistance for MLDS system users.

Goal 7: Design, use, and maintain business intelligence tools (analytical and reporting).
MSDE and CTE have expertise and experience in designing and implementing state-of-the-art tools, reports, and online professional development that supports the timely decision-making of educators at all levels (classroom, school, district and State), policymakers, and the public.

Maryland has been a leader in collecting, analyzing, and disseminating student performance data to a wide range of audiences for over a decade. Through its Website, annual test data is disaggregated by special populations and local districts and schools. Online tutorials and resources on understanding standards, assessment, and annual yearly progress (AYP) support the use of the data on the site.

At the school and classroom levels, CTE in partnership with MSDE, has developed *Student Compass,* a tool that efficiently collects and organizes student-level data for monitoring student performance across time and enables teachers to make strategic data-based decisions regarding instructional strategies. In addition, the aggregation of this class-level data provides school

leadership teams accurate real-time student performance data with visual evidence (e.g., charts, diagrams, and tables) for school-wide instructional decision making.

At the district and State levels, MSDE and CTE have created an online Individualized Family Services Plan (IFSP) that contains data on children with disabilities that are ages birth to age three; an online Individualized Education Plan (IEP) for students with disabilities that are ages three through 21; and a reporting tool that disaggregates the data into subgroups for analyses by local administrators and governments.

Additionally, MSDE, CTE and its developer DataLab USA, have developed an innovative decision-tree model to analyze the factors that determine whether a student with disabilities will receive services in the least restrictive environment (in Maryland, this is the LRE A category). LRE A is further defined as a 6-21 year old student enrolled in a comprehensive school who receives special education and related services outside the general education setting for less than 21% of the school day. Online professional development models are currently being written to support local and State leaders in using this robust analytical methodology tool to drive decisions that will help students achieve.

The analytic prototypes, reporting tools, and professional development explained above provide an excellent framework in which to fashion additional decision-making tools in MLDS. As stated earlier, the linkage of assessment scores and longitudinal data through a unique student identifier will provide the means through which the MLDS project team will design and build analytic models and reporting tools to mine data in order to improve programs, processes, and interventions for children.

Objective 7.1: Design predefined reports to streamline the capability to report to local, State, and federal agencies.
The MLDS project team, with significant input from stakeholders, will determine the current and future reporting needs to ensure compliance at all levels. The newly designed reporting feature of MLDS will provide the capacity to streamline the reporting process. In addition, MSDE will develop the capacity to report data to the Department of Education electronically using the Education Data Exchange Network.

Objective 7.2: Design timely reports and analyze needs of different stakeholders and design protocols for high-level longitudinal analyses required for data-driven decision-making by policymakers, educators, and members of the public.
The MLDS Team will conduct interviews and/or focus groups to determine the analytic and reporting needs and formats. The team will pilot processes and logic to examine the capacity of tools such as *Cognos* and the B/C Report Writer to produce data in a format to enable stakeholders to make decisions.

Objective 7.3: Provide timely, accurate, and user-friendly dissemination of the needed data, reports, and analyses results to various stakeholders.
The MLDS team will develop a marketing plan that includes the use of persuasive technology applications in order to disseminate data, reports, and analyses to parents, guardians, students, teachers, schools, district administrators, state officials and administrators, higher education, the

business community, and the general public in a venue that is compatible to their individual styles and needs.

Objective 7.4: Conduct longitudinal education research to inform policy and decision-making at the State, district, school, and class levels in order to improve student achievement.
The most important purpose for building this data system is to help Maryland educators and other key stakeholders to use data to make decisions that will improve education and close the achievement gaps among sub-groups of children and youth. While the specific research questions and issues that need to be explored will be defined by the stakeholders during the requirements phase of this project, the results of the recent Maryland Assessment Program will provide direction to the group's initial discussions.

One significant finding that needs to be further explored is that approximately 58% of the 173 schools in Maryland that were rated as not making (AYP) fell short because of the lack of progress by their students with disabilities. Many researchers suggest that to improve the achievement of children with disabilities that it is imperative that educators (1) develop high quality Individual Education Plans with goals that align with Maryland's Voluntary State Curriculum and include research-based instructional strategies and accommodations, (2) continuously monitor students' progress towards goal achievement, and (3) use this data to make instructional decisions that drive student progress. The MLDS system will include the Maryland online IEP and CTE's *Student Compass* which will provide the mechanism to conduct research surrounding these critical issues.

Objective 7.5: Design, deliver, support, and evaluate a variety of professional development offerings for differing audiences (teachers, school-based leaders, district and State administrators) on the use of innovative analytical tools and reports to inform their policy and decision-making abilities.
The core purpose of this objective is to implement a dynamic, high quality, online professional development system that will provide a wealth of information, services, tools, and resources as well as a continuum of offerings that will include tutorials, self-paced courses, facilitated courses, and online communities of practice. MDSE will work with CTE to deliver an innovative, online solution for high quality professional development. CTE will adapt its current Online Learning Management System (OLMS) (see Appendix B Optional Attachments) to support MSDE in delivering statewide professional development that helps all stakeholders acquire content knowledge and skills necessary to effectively use MLDS in making decisions that improve instruction, enhance programs and services, and inform policy.

Goal 8: Establish logistical capacity to create and maintain a statewide longitudinal data system.
MSDE has been successful in establishing, maintaining, and providing professional development to local providers in high quality data collection systems for special education and high stakes testing. The Division of Special Education/Early Intervention Services has successfully linked the Part C and Part B data systems for the State, established and maintained a Web-based Part C IFSP data entry system, and is currently implementing an on-line IEP system in eight of the 24 local school districts. The Division of Accountability and Assessment has also been successful

in implementing statewide training for the delivery of Maryland State Assessment (MSA) data. In addition, MSDE has sponsored research and evaluation studies to investigate a wide array of student outcomes and successful educational initiatives. MSDE is committed to establishing, maintaining, and sustaining the new MLDS system.

Objective 8.1: Develop efficient administrative processes, infrastructure components, and policy commitments for effectively implementing the maintenance of statewide longitudinal data systems.

In State Superintendent Nancy S. Grasmick's transmittal letter for this grant, she indicates that she and all members of her Leadership Team are committed to the ongoing development, maintenance, and sustainability of the Maryland Longitudinal Data System. Her assurances include: continued legislative advocacy, funding, staff, and other resources necessary to collect high-quality data, disseminate the data, analyze results, and assure data security and confidentiality according to regulations.

The MLDS leadership team will continue its commitment and tenure beyond the three-year scope of the grant in order to effectively oversee the system. The MLDS leadership team will:

1. Develop a process for obtaining annual feedback on the system and all associated products and functionality and providing system revisions as needed.
2. Create a 3-year plan, beyond the length of the grant period for training on MLDS data entry, reports, and functionality, as well as for online tutorials on decision-making.
3. Develop a plan for MSDE staff to technically maintain the longitudinal data warehouse with all associated fields, reports, queries, networking capabilities, and functionality.
4. Ensure that the plan includes resources to maintain all hardware and software needed to operate the system.

Objective 8.2: Assure sustainability and effectiveness of the system.

Existing MSDE staff whose duties include data hosting, management, and analyses will be trained on MLDS and updated on changes as needed. MSDE staff will maintain their existing Data Manager's users group in order to facilitate communication, oversee data collection and management, and disseminate data reports at the local level.

The Stakeholder Advisory Committee will continue after the end of the grant period, although its role will change slightly. The MLDS leadership team will determine the new roles, responsibilities and local school districts that will make up the Stakeholder Advisory Committee. Their primary objective will be to ensure that the processes, reports, research, and professional development that result from MLDS will meet their needs.

<u>Outcomes from the Creation and Use of a Statewide Longitudinal System</u>

The MLDS team is committed to delivering these seven outcomes that will result from the creation, implementation, and ongoing use of a longitudinal data system.

1. Improve teaching and student achievement.

The MLDS team will design, build, and implement a statewide longitudinal data system that has the structure, reporting tools, and analytic and decision-making components that will be used to assist Maryland educators, administrators, and key stakeholders with making decisions that will increase their capacity to serve students and ultimately increase student achievement.

Specifically, in year 1 of the grant, research will begin with selected sites to determine the extent to which IEP teams write high quality, measurable goals and the extent to which student achievement is increasing for students with disabilities. The alignment of IEPs and the Maryland Content Standards will be analyzed related to student outcomes and NCLB. The results of this investigation will be published.

2. Improve instruction, enhance programs and services, and inform policy through the delivery of high-quality professional development and technical assistance to local school systems.

CTE will adapt its current Online Learning Management System (OLMS) to support stakeholders in making decisions that improve instruction, enhance programs and services, and inform policy. The MLDS team will use OLMS as its platform to create and implement a dynamic, high quality, online professional development system that will provide services, tools, resources and a continuum of offerings that will include tutorials, self-paced courses, facilitated courses, and online communities of practice. (See Appendix B: Optional Attachments)

3. Increase accuracy and timeliness of local, State, and federal reporting.

The enterprise-wide data architecture will support acceptance of data at any interval or frequency as determined by the State. To the extent possible, the MLDS will automate the population and validation of the data warehouse freeing local and State data managers to more effectively utilize the data for research and decision-making. The system will utilize a sophisticated error-checking and validation module to accurately and efficiently identify errors and duplicate records. Data audits conducted at the State level will facilitate program and sub-recipient monitoring.

4. Enhanced research and decision-making that leads to better understanding of educational issues and the implementation of effective strategies that comply with Federal, State, and FERPA regulations for privacy.

The MLDS will dramatically increase the State's ability to conduct research and support data-driven decision-making across disparate sources of data, track students as they move from one school to another, and examine student data over the course of their school careers and beyond. The MLDS will be designed to ensure compliance with privacy regulations.

5. Improved programs, processes, and interventions for children through the use of analytic models and reporting tools.

The MLDS project team will design and build analytic models and reporting tools in order to provide accurate, user-friendly data to educators, local leaders and stakeholders in order for them to be able to use the data to make good decisions that will improve programs, processes, and interventions for children.

6. Sustained statewide longitudinal data system.

Maryland's superintendent, Nancy S. Grasmick, along with her Leadership Team have committed to the development, maintenance, and sustainability of the Maryland Longitudinal Data System.

7. Data-sharing of information through the exchange of data across institutions within the State and across states

The MLDS will link its rich individual data collection systems vertically (between the state, county and local school level), horizontally (across departments, programs, and data sources), and longitudinally (over time). Memorandums of agreement with neighboring states will be obtained to allow for the transfer of student-level data in order to maintain complete, accurate student-level files.

Project Evaluation
Dr. Deborah T. Carran of the Graduate Division of Education at JHU will serve as the independent evaluator and expert advisor to the research team. The evaluation will monitor the program integrity, product integrity, and goals of this project. The evaluator will work with the research team and the leadership team to identify the specific evaluation criteria. Through participant observation, the evaluator will become part of the formal and informal team of project staff and stakeholders, attending nearly every grant-related meeting scheduled over the course of the grant-funding period. This will be critical to the thoroughness of the evaluation and give the evaluator many contact hours with staff and stakeholders. The evaluator will deliver an annual formative evaluation report on project activities and a final summative report.

If the Department of Education decides to conduct an additional evaluation, MSDE agrees to participate in such an evaluation even if this evaluation extends beyond the grant period.

(3) *Project Personnel*
Adherence to Code of Fair Employment Practices
Under Executive Order 01.01.1995.19, the State of Maryland operates according to the Code of Fair Employment Practices. MSDE policy affirms equal opportunity for employment in principle and practice.

MSDE and CTE will assemble a project team with a range of expertise in project management, data analysis and predictive modeling, database development, online professional development, and measurement and evaluation. Project personnel will include MSDE staff, JHU faculty and staff, technical consultants skilled in developing sophisticated, relational data systems, experts in building analytic models, data security consultants, and project evaluators. This section summarizes the roles and responsibilities of the key personnel.

The Johns Hopkins University Center for Technology in Education (CTE), established in 1986, is recognized as one of the nation's premier authorities on educational technology. CTE is the product of a unique, 18-year partnership between the Maryland State Department of Education (MSDE) and Johns Hopkins University (JHU). CTE was conceived as an organization that would combine the research and teaching resources of JHU with the leadership and policy support of MSDE. CTE applies its expertise in a wide array of programs, projects, and research initiatives focused on increasing the capabilities of teachers, parents, schools, and school administrators, and ultimately raising the level of student achievement.

For MSDE, CTE builds and supports educational leadership networks and provides professional development for general and special education programs, including the Maryland Technology Academy, the Maryland Assistive Technology Network and the Maryland Special Education Leadership Forum. CTE also designs and conducts statewide professional development to increase educators' knowledge and skills in effectively using technology to improve instruction and raise student achievement. In addition, CTE provides district level training to increase local capacity to use technology for instruction with all children, particularly those with special needs.

In 2002, DataLab USA, a premiere custom solutions developer, was awarded a CTE competitive procurement to develop data capture and data retrieval systems for CTE. Personnel from

DataLab USA have vast experience in the areas of intelligent database design, data-driven problem solving, and data mining. They have delivered intelligent database solutions for some of the nation's top organizations and are known for state-of-the-art data analysis, predictive modeling, and helping organizations intelligently identify, monitor, and manage all aspects of their data infrastructure.

DataLab USA will design and develop the MLDS data warehouse and the analytic models that will support analysis and decision-making. Under Hans Aigner's leadership, DataLab USA offers innovative data analytics and sophisticated predictive modeling services. In conjunction with CTE and MSDE, DataLab USA has linked the Part B and C databases for the State and developed the Maryland Online Infant and Toddler Family Service Plan (IFSP), Maryland's statewide online Individualized Education Plan (IEP) and the Online Student Services Information System (SSIS). In addition, this same team has pioneered the use of predictive modeling and data mining of the State's LRE data for improved monitoring. Through these experiences, DataLab USA has gained significant understanding of MSDE's current data collections and has completed a prototype for implementing a unique student identifier (see Appendix B: Optional Attachments). Data Lab USA is uniquely qualified to work with MDSE and CTE on the MLDS project.

Key project personnel are presented below. Each resource discussed below can be located on the MLDS Organizational Chart in Appendix B: Optional Attachments.

MSDE

Nancy S. Grasmick, Ph.D., State Superintendent of Schools, will serve as the MSDE Leadership Team Executive for the MLDS project. Dr. Grasmick is known for her strong focus on student achievement, teacher quality, early childhood education, and parent involvement, and for her unwavering support for adequate public education funding. In 2003, the Education Commission of the States gave Maryland its prestigious State Innovation Award for excellence in education policy development. In addition, Dr. Grasmick has received numerous awards for her visionary leadership, including the Harold W. McGraw, Jr. Prize in Education.

The Project Director is **Carol Ann Baglin**, Ed.D., Assistant State Superintendent, Division of Early Intervention/ Special Education, MSDE. Dr. Baglin specializes in early childhood development and intervention services, program evaluation, leadership development, total quality management, and organizational change. Her area of research includes tracking eligible infants and toddlers into special education, and analyzing certain characteristics of this cohort. She will provide oversight to ensure that the management plan, budget, and evaluation reflect the intent of the grant. She will be the primary interface to the MSDE Leadership Team who will provide advice, guidance, and support on this project. Dr. Baglin will devote 25% of her time to this project.

Sidney Drake, Chief Information Officer, MSDE, is a member of the Leadership Team for MLDS. Mr. Drake has over twenty years of Information Technology experience; eighteen years in a leadership, supervisory or management role. His experience includes strategic, tactical and operational management. Areas of responsibility include networking, user support, application development, web services, database systems, telecommunication, budgeting, policy development, licensing, strategic planning, instructional technologies and contract negotiations

and management. Mr. Drake has worked closely with faculty, staff, students and administrators in both urban and suburban educational institutions.

Gary Heath, Assistant State Superintendent, Division of Accountability and Assessment, MSDE. Mr. Heath will provide oversight to ensure that all critical and confidential student data (achievement, demographic, etc.) is accurately and technically linked in accordance with the intent of the grant. He is a member of the MSDE Leadership Team for MLDS.

Anthony Palcher, MSDE, IT Site Manager, Office of Information Technology, will provide expertise to the technical team in the structure, format, and design of MSDE's current data systems in order to facilitate the development of the new data warehouse. Mr. Palcher will lead the MSDE Data Management Team.

Edward Featherston, MSDE, Technical Systems Analyst, Divisional and State Interagency Support, will be a key player on the MSDE Data Management team providing expertise on MSDE's existing data collections, interfacing with the LSS Data Managers and supporting the development and population of the MLDS. Mr. Featherstone's time allocation is 25%.

CTE

Jacqueline Nunn, Ed.D., has directed the Johns Hopkins University's Center for Technology in Education (CTE) for the past 15 years. In that time, CTE has developed expertise in the design and delivery of online professional development and communities of practice as well as developed a suite of innovative tools, including the *Electronic Learning Community,* the *Digital Portfolio*, and *Student Compass*. Her research interests include online student data collection and decision-support systems. Dr. Nunn has served as the co-principal investigator with Dr. Baglin on numerous projects involving data tracking and analytic model development. Dr. Nunn has directed CTE's involvement in two U.S. Department of Education Technology Innovation Challenge Grants. Dr. Nunn's allocation of time is 25%.

Elaine Urbanski, Program Coordinator, Johns Hopkins University Center for Technology in Education, has significant experience in project oversight and management. She directed a team to develop outcomes/measures for children (birth to age 5) and the technical infrastructure to collect and aggregate data. She also managed a project to develop, train, and technically support the Online Reporting System that was used by over 100 U.S. Department of Education's Technology Innovation Challenge Grant projects and Congressional Award projects. Ms. Urbanski will serve as the overall Project Manager managing all aspects of the project scope with 75% of her time devoted to the project.

David C. Peloff, M.A., Program Director, Emerging Technologies, Johns Hopkins University Center for Technology in Education, received his graduate degree in Curriculum and Instruction with an emphasis in Educational Technology. Mr. Peloff's experience includes serving as the technical lead on a long-term project funded by MSDE to evaluate and measure outcomes for students receiving general and special education services. Mr. Peloff will guide the work of the data system developer in linking all datasets through the Unique ID. Mr. Peloff and his team will devote 1.5 FTE personnel to this effort.

Robin Gross, M.S., Associate, Johns Hopkins University Center for Technology in Education (CTE), has twenty-five years experience in Information Technology and Education focusing on project management, complex solution design and implementation, business development, consulting, training, systems integration, and packaged software implementation. At CTE, she has defined project management methodologies and project approaches for technology solutions in the areas of distance learning, web-based applications, packaged software implementations, and database capture and retrieval systems. In addition, Ms. Gross has been the project manager or project executive on several public sector projects. She is certified as an IBM Project Management Executive and IBM Solutions Manager. Ms. Gross will work as part of the technical team under the direction of Mr. Peloff.

K. Lynne Harper Mainzer, Ed.D., Associate Director and Program Director of Research and Development, Johns Hopkins University Center for Technology in Education. Dr. Mainzer has worked extensively in the special education field and has experience as principal investigator in several long-term projects funded by the U.S. Department of Education in the evaluation of academic performance of students with special needs, technology integration, and professional development models. In this project, she will lead the Research team to ensure that outcomes are met. Her time, including time committed by Dr. Castellani (listed below), John Castellani, Ph.D., and a research assistant (new hire) will equal 1.5 FTE personnel.

John Castellani, Ph.D., Program Director, Johns Hopkins University Center for Technology in Education, has background and experience in data design, collection, and analysis related to students with disabilities. Dr. Castellani recently completed his work as co-principal investigator on two separate projects involving the use of web-based data collection and technical database linkages. He recently published "Data Mining Process and Analysis Strategies for Special Education Technology Decision-Making." in D. Edyburn, K. Higgins, & R. Boone (Eds.), *Handbook of Special Education Technology*. Milwaukee, WI: Knowledge by Design, Inc., Castellani, J.D., & Castellani, B.C. (2005). He will lead specific research components of the grant and the development of models on how to effectively use the data to drive decision-making. His time is included in the allocation above for the Research Team.

Ann Lowry, M.S., Program Director for Online Learning and Distance Education, Johns Hopkins University Center for Technology in Education, a current doctoral candidate at Johns Hopkins University, received her undergraduate training in Special Education and her Master's Degree in Administration. She is a primary architect of CTE's model for online learning and CTE's electronic learning tools. Ms. Lowry has provided direction and leadership for a variety of local, State and national education technology initiatives at CTE, including federal grant projects with large-scale web-based professional development dissemination. Ms. Lowry will direct the professional development component of the grant with an emphasis on stakeholder involvement. She and her team consisting of Linda Carling, Program Coordinator, and a new hire will commit 1.5 FTE personnel to this effort.

Linda Carling, M.S., Program Coordinator, currently manages CTE's online course development and delivery, ensuring that all web-based learning modules meet the standards outlined in CTE's Online Learning Model. Ms. Carling brings instructional design expertise gained through her master's degree work at Johns Hopkins, her experience with online

curriculum development and teaching at Sylvan, and her involvement in developing and implementing CTE's Online Learning Model. Ms. Carling's responsibilities include managing the development and delivery of the Maryland Special Education Leadership Academy (SELA), a distance education graduate certificate program in supervision and administration. She will be instrumental in coordinating the professional development training necessary to successfully implement the MLDS.

Deborah T. Carran, Ph.D., Associate Professor, Graduate Division of Education, Johns Hopkins University has been working in the areas of electronic data set linkage, longitudinal tracking, and educational outcomes for 20 years. Dr. Carran received her doctorate in developmental psychology, studying 12 year educational outcomes for medically fragile infants. She has continued to work in this area tracking special needs children across time and looking at young adults transitioning from segregated facilities. She will lead the evaluation component of the grant and will commit 25% of her time to this effort.

DataLab USA
Hans Aigner, CEO, DataLab USA. Over the past 25 years, Mr. Aigner has been at the forefront of production and statistical innovations in database marketing. He has served as an innovative leader in programs using innovative simulation techniques and optimization procedures. Under Mr. Aigner's leadership, DataLab USA offers innovative data analytics and sophisticated predictive modeling services. In support of MSDE and CTE, he has been the key architect in linking Part B and C databases for the State and has led the development of the Maryland Online Infant and Toddler Family Service Plan (IFSP), Maryland's statewide online Individualized Education Plan (IEP) and the Online Student Services Information System (SSIS). He has authored the "Study of the Usefulness and Accuracy of a Unique Student Identifier based on the Maryland Public School Enrollment Data Collection."

(4). Resources

MSDE, CTE and DataLab USA will each provide facilities, equipment, materials, and support staff at a level sufficient to ensure successful completion of the project. Resources will include, but not be limited to, office space, conference facilities, computers, servers, networks, development and testing environments, desktop and server software, telephones, data storage, and security infrastructure.

This grant will build upon work already begun for developing a database of special education data collected from the Maryland Online Individualized Family Service Plan, the Maryland Online Individual Education Plan, and the Student Services Information System among other systems. This longitudinal data system, with its unique student identifier, will significantly expand and enhance the ability of MSDE to integrate all of its data sources, and allow data-driven decision-making and longitudinal research. The data warehouse will provide an architecture and framework for associating all data currently being collected, as well as additional data sets to be collected in the future.

This project has the support of the MSDE State Superintendent and her Leadership Team consisting of all of the Assistant State Superintendents and the Chief Information Officer. This team is committed to funding implementation, ongoing maintenance and support, and activities

and resources required to expand and sustain MLDS that are not funded through this grant. MSDE is working to form partnerships with other states, in order to share the knowledge and products developed from this grant and to create partnerships leading to additional opportunities for leveraging the funding from this grant.

(5). Management Plan

Project Management Approach

Effective project management is critical to the success of the project, where success is defined as achieving the objectives of the project, on schedule, and within the agreed budget. A dedicated and experienced Project Manager will facilitate task completion, schedule adherence, up-to-date status, and effective communications. The Project Manager will develop, together with the MLDS project team, a detailed project plan using Microsoft Project and will clearly define the responsibilities for all team members. This Project Plan will include measurable tasks, clearly defined deliverables (and who is responsible for creating them), task estimates, task schedules, task dependencies, critical path, and project milestones.

The Project Manager, with the MLDS project team, tracks the progress weekly against the project plan. This tracking of data is the basis for quarterly reporting to stakeholders and management, and is used to identify variances from the plan. Addressing these variances early is critical to the success of the project in order to avoid major impacts on project schedule and cost. A fundamental tenet of our approach to this project is to use a phased development methodology. This ensures that the solution developed meets the needs of all interested parties and stakeholders by breaking the project into a logical series of smaller sized segments, each with their own activities, tasks, estimates, and deliverables. Please see Appendix A: Timeline.

One particularly critical aspect of project management is change management. The purpose of change management is to insure that the deliverables developed during the project are in agreement with baseline documents such as the Requirements Document, unless changes to these baseline documents are approved by management. This ensures that changes are approved only by personnel who are authorized to review the potential benefits, schedule, and cost impact of the proposed change. A Change Control Board consisting of MSDE and CTE Project Directors, MLDS Project Manager, Technical Team Leader, Data-Driven Decision-Making and Research Team Lead, Requirements, Implementation and Professional Development Team Leaders will make the final decision on prioritizing and approving documented Project Change Requests (PCRs).

Project Organization

The MLDS project will be under the overall direction of the Project Director, Dr. Carol Ann Baglin, MSDE Assistant State Superintendent, Division of Special Education/Early Intervention Services and the Co-Project Director, Dr. Jacqueline Nunn, CTE Director. Over the past decade, Dr. Carol Ann Baglin and Dr. Jacqueline Nunn have successfully worked together on numerous projects where they have held similar roles such as Co-Principal Investigators.

The project will be organized into four primary groups (see Organization Chart in Appendix B: Optional Attachments for more details):

- Leadership Team, consisting of the MSDE State Superintendent, the Assistant State Superintendents, and the Chief Information Officer, will advise the MSDE Project Director;
- MSDE Data Management, consisting of key staff from MSDE, who will provide technical guidance in the structure, format, and design of MSDE's current data systems to facilitate the development of the new data warehouse and provide the infrastructure and ongoing support
- Stakeholder Advisory Committee, consisting of key stakeholders, who will advise the CTE Co-Project Director and the Requirements, Professional Development and Implementation;
- Project Teams, consisting of staff from MSDE, CTE, DataLab USA, and selected consultants, who will work under the supervision of the MLDS Project Manager and Team Leaders.

Leadership Team

The Leadership Team will provide guidance to the MSDE Project Director. They will attend the Stakeholders Advisory Committee meetings on an as-needed basis and will be consulted on all key decisions, participate in review of research and decision-making pilot results and resulting educational strategy recommendations and advise on further implementation initiatives based on the MLDS pilot outcomes. The Leadership Team members include:

- Nancy S. Grasmick, State Superintendent of Schools
- Carol Ann Baglin, Assistant State Superintendent, Division of Special Education/Early Intervention Services
- Robert Burns, Assistant State Superintendent, Division of Rehabilitation Services
- JoAnne Carter, Assistant State Superintendent, Division of Student and School Services
- Mary Cary, Assistant State Superintendent, Division for Leadership Development
- Mary Clapsaddle, Assistant State Superintendent, Division of Business Services
- Sidney Drake, Chief Information Officer
- Gary Heath, Assistant State Superintendent, Division of Accountability and Assessment
- Katherine Oliver, Assistant State Superintendent, Division of Career Technology and Adult Learning
- Irene Padilla, Assistant State Superintendent, Division of Library Development and Services
- Colleen Seremet, Assistant State Superintendent, Division of Instruction
- John Smeallie, Assistant State Superintendent, Division of Certification and Accreditation

MSDE Data Management Team

The MSDE Data Management Team will provide expertise to the technical team on the structure, format, and design of MSDE's current data systems in order to facilitate the development of the new data warehouse. This team will interface with the LSS Data Managers and provide the infrastructure for MLDS including network, hosting and technical support. This team will plan for the capacity and the sustainability of the system. Key personnel include:

- Anthony Palcher, MSDE, IT Site Manager, Office of Information Technology
- Ned Featherston, MSDE, Technical Analyst, Divisional and State Interagency Support.

Stakeholders Advisory Committee

The Stakeholders Advisory Committee will play a critical role to ensure that their needs are understood and that the resulting system will facilitate data-driven decision-making at the student, classroom, school, district and State levels. They will participate in the Requirements

Analysis, Solution Design and Prototype, Pilot, and Evaluation Phases of the Project. They will also have an ongoing role in MLDS after the completion of the three-year grant. The Stakeholder Advisory Committee members will include:
LSS Superintendents: Karen Salmon, Superintendent *Talbot County Public Schools*, Jacqueline Haas, Superintendent, *Harford County Public Schools*, and other LSS to be identified later.
***LSS Directors of Special Education*:** Sheree Witt, Executive Director of Special Education & Pupil Services, *Allegany County Public Schools,* Glen Hammerbacher, Supervisor of Special Education, *Worcester County Public Schools,* and other LSS to be identified later.
LSS Representative of Subgroup Populations (In accordance with NCLB):
2 Local Accountability Coordinators, 2 Teacher Representatives from Schools selected within Partner LSS, Parent Representatives from Schools selected within Partner LSS. David Rose, Assistive Technology Specialist, *Queen Anne's County Public Schools,* and Jill Basye ESOL Curriculum Specialist, *Baltimore City* has already committed to the project; School Leadership Representatives from Schools selected within Partner LSS.
Maryland Child Services Agencies: Representatives from Department of Juvenile Services, DHR, Department of Health and Mental Hygiene, Governor's Office for Children and Youth, and the Department of Disabilities
Other State Departments of Education: The states of Virginia and the District of Columbia have submitted letters of commitment to work with Maryland on MLDS. Upon award, other neighboring states will be contacted to ensure data exchange across states. ***Additional Representatives*** – Felice Shore, Assistant Professor Department of Mathematics, Towson University; June Strecfus, Executive Director for Education, Maryland Business Roundtable.

Project Team
The project team is composed of key personnel from the Maryland State Department of Education (MSDE), Johns Hopkins University Center for Technology in Education (CTE), DataLab USA and selected consultants with demonstrated records of proven performance. This entire team has successfully worked together designing, developing, and implementing web-based data capture and retrieval systems in the State of Maryland.
The project team will be organized into three sub-teams including:

- Technical Team with responsibilities for Data Architecture, Systems Development, Infrastructure, Maintenance and Support; and
- Data-Driven Decision-Making and Research Team with responsibilities for conducting research on cost/benefit and sustainability of dynamic vs. static or manual systems, design of analytic models and longitudinal educational research;
- Requirements, Professional Development, and Implementation Team with responsibilities for requirements, professional development, pilot design and monitoring, implementation, and statewide rollout.

Project Communications
Effective, efficient and timely project communications is critical to the success of a large, complex project such as the Maryland Longitudinal Data System (MLDS). It is important that concise communication takes place at all project levels. Six primary methods of communication will be utilized. The format and procedures for each communication vehicle will be documented and disseminated by the Project Office.

1. Bi-weekly Project Team Meetings -these meetings will serve to keep all project team members informed as to the status of tasks, milestones and deliverables. Project issues can be raised and resolved quickly with team leadership representing all aspects of the project.
2. Monthly MSDE/CTE Status Meetings -these meetings will serve to keep MSDE and CTE management well informed as to the status of the project, provide a forum for presenting issues needing resolution at management levels, and allow time to review feedback from the stakeholders to ensure that their needs are being met.
3. Quarterly Stakeholder Advisory Committee Meetings -these facilitated meetings will provide the MLDS project team with information needed to ensure that stakeholder needs are met and project outcomes are attained. These meetings will keep stakeholders well informed as to the status of the project, provide a forum for presenting issues needing resolution, and allow for interchange of ideas among the stakeholders and the project team. Stakeholder sub-committees will meet more regularly during the project.
4. Quarterly Written Status Reports - project status reports are generated quarterly, and can be presented and discussed at scheduled status meetings. Project status reports include: project schedule, accomplishments, milestones completed, issues requiring attention, recommendations to resolve issues, plans for the next reporting period, and project change control summary.
5. Exchange Server – All project communications will be stored on a secure web-based server.
6. The ELC, a Web-based tool, will be used to facilitate information exchange with all MLDS project personnel. Additional information on CTE's ELC is provided in Appendix B, Optional Attachments.

Feedback, Continuous Quality Improvement and Sustainability

Feedback and continuous quality improvement are essential to ensuring that project outcomes are achieved and stakeholder needs are met. MLDS stakeholders will be involved in activities such as Requirements Definition, Prototype Validation, Research and User Access Pilots, and System Testing. Various user communities will provide feedback throughout the various project phases. Change is inevitable on projects and must be managed and documented through Project Change Requests (PCRs) which are presented to the Change Control Board (described earlier) for approval. To exchange ideas among the MLDS user community, the project team will host an Annual User Meeting.

The Stakeholders Advisory Committee will remain in place after MLDS is developed to monitor ongoing usage, provide feedback on improvements, and to review research results and recommend strategies for improving teaching and student achievement. The Leadership Team and the Data Management teams will also remain in place. The recommendations resulting from the MLDS, Stakeholders Advisory Committee and the Research Team will be reviewed by the Leadership Team in order to implement new state-wide educational strategies and programs.

Agreements with LSS and Collaboration Partners

Documents of Understanding (DOUs) outlining the roles and responsibilities of MSDE and LSS will be put in place. Some LSS partners have already indicated their desire to participate in MLDS in a signed letter of commitment (Appendix B: Optional Attachments).

Once the system has been successfully piloted with partner LSS, MLDS functionality will be implemented across all LSS in the State in a phased manner. Upon award, a contractual agreement for the MLDS Scope of Work will be put in place between MSDE and CTE, a

Collaboration Partner. MSDE and CTE intend to jointly pilot research and data-driven decision-making projects aimed at improving teaching and student achievement using MLDS. The specific research and data-driven decision-making topics to be undertaken will be defined during the Requirements Phase of this project. For these pilots, CTE will describe data-driven decision-making techniques, teach the methodology on how to analyze research results, and solicit feedback on how educational strategies may be implemented at the school level based on the results. MSDE will review the pilot results and determine further statewide implementation plans for recommended educational strategies.

Letters of Support have been provided by other state Departments of Education indicating their desire to work with MSDE on the MLDS project (Appendix B: Optional Attachments). MSDE and the other State Departments of Education will determine during the Planning Phase (first month of this project) their respective roles and responsibilities and document these in signed Documents of Understanding.

MSDE is prepared to share MLDS deliverables and products including the results of research and recommended educational strategies with these partner states and ultimately, with any other interested state. MSDE will agree to develop the capacity to report data to the U.S. Department of Education electronically using the Education Data Exchange Network.

Section F. Resumes of Key Personnel
MSDE
Nancy S. Grasmick, MSDE Leadership Team Executive
State Superintendent of Schools

Carol Ann Baglin, MLDS Project Director
Assistant State Superintendent, Division of Special Education/Early Intervention

Sidney Drake, MSDE Leadership Team Member
Chief Information Officer

Gary Heath, MSDE Leadership Team Member
Assistant State Superintendent, Division of Accountability and Assessment

Anthony Palcher, MSDE Data Management Team Leader
IT Site Manager, Office of Information Technology

Edward Featherston, Data Management Team Member
Technical Systems Analyst, Divisional and State Interagency

JHU CTE
Jacqueline A. Nunn, Ed.D., MLDS Co-Project Director
Director of Johns Hopkins University Center for Technology in Education

Elaine Urbanski, M.A.S., MLDS Project Manager
Program Coordinator, Center for Technology in Education

David Peloff, M.A.Ed., MLDS Technical Team Leader
Program Director, Emerging Technologies, Center for Technology in Education

Robin Gross, M.S.Ed., MLDS Technical Team Member
Associate, Center for Technology in Education

Lynne K. Mainzer, Ed.D, Data-Driven Decision-Making/Research Team Leader
Senior Associate Director, Center for Technolo gy in Education

John Castellani, Ph.D., Data-Driven Decision-Making/Research Team Member
Program Director, Policy to Practice, Center for Technology in Education

Ann Lowry, M.S., Requirements, Professional Development/ Implementation Team Leader
Program Director, Online Learning and Distance Education, Center for Technology in Education

Linda Carling, M.S., Requirements, Professional Development/ Implementation Team Member, Program Coordinator, Center for Technology in Education

Deborah T. Carran, Ph.D., Evaluator
Associate Professor, Graduate Division of Education, Johns Hopkins University

DataLab USA
Hans Aigner, Data Architect, CEO of DataLab USA

NANCY S. GRASMICK
Maryland State Department of Education

PROFESSIONAL EXPERIENCE
State Superintendent of Schools, Maryland, 1991 –
Special Secretary for Children, Youth, and Families, Maryland, 1989 – 1994
Secretary of Juvenile Services, Maryland, 1991
Teacher and Administrator, Baltimore County Public Schools, 1964 – 1989
Teacher, William S. Baer School, 1961 – 1964

DEGREES
Doctorate in Communicative Sciences, Johns Hopkins University, Baltimore, MD
Graduated with Distinction, 1979
M.S., Deaf Education, Gallaudet University, Washington, D.C., 1965
B.S., Elementary Education, Towson University, Baltimore, MD, 1961

BOARDS AND COMMISSIONS
Consortium for Policy Research in Education Executive Board (Harvard, Stanford, Michigan, Pennsylvania, and Wisconsin-Madison Universities)
Health Care for the Homeless Board of Directors

Johns Hopkins University Center for Talented Youth Board
Johns Hopkins University Graduate Division of Education Advisory Board, Chair
Johns Hopkins University School of Professional Studies in Business and Education Advisory Council

Maryland Business Roundtable for Education
Maryland State Board of Education, Secretary-Treasurer
Maryland Public Broadcasting Commission

Pride of Baltimore, Inc. Board of Directors
Towson University, Board of Visitors
U.S. Army War College Board of Visitors
University of Maryland, College of Education Board of Visitors

PROFESSIONAL
ACTIVITIES
Child Care Foundation, *President*
Pi Lambda Theta, National Honor Association for Women in Education
Phi Delta Kappa, Johns Hopkins University
Women Executives in State Government

AWARDS
2004
2004 Innovator of the Year, Daily Record
2004 President's Award for K-12 Leadership, College Board

2004 MD Women's Hall of Fame, MD Commission for Women
2004 Woodrow Wilson Award for Distinguished Government Service, Johns Hopkins University Alumni Association

2003
Breath of Life Award, American Lung Association of Maryland, Inc.
Communication and Leadership Award, Toastmasters International's Region VII
John R. Calvetti Memorial Award, Cable Telecommunications Association of Maryland, Delaware, and the District of Columbia

2002
2002 Sonya Award, Carson Scholars Fund
2002 Maryland Spirit of Public Relations Award, Maryland Chapter of the Public Relations Society of America

2001
Community Service Award, Maryland State Conference of the NAACP
2001 Spirit of Children Award, The Baltimore Ronald McDonald House
Louis V. Koerber Award, The National Flag Day Foundation, Inc.

2000
2000 Harold W. McGraw, Jr. Prize in Education
Maryland's Top 100 Women, by Warfield's Daily Record; Induction in the Circle of Excellence
President's Award, National Association of Private Schools for Exceptional Children (NAPSEC)
2000 Outstanding Advocate Award, National Association of School Psychologists
Engineering Education Leadership Award, Engineering Society of Baltimore
President's Award, Council of Educational Administrative & Supervisory Organizations of Maryland

1996 – 1999

***Marylander of the Year,* The Baltimore Sun**
Speaker's Award and Medallion, Maryland House of Delegates
Baltimore's Most Influential, Baltimore Business Journal
Educator of the Year, American Council on Rural Special Education

HONORARY
DEGREES
Doctor of Humane Letters, St. Mary's College
Doctor of Humane Letters, Towson State University
Doctor of Humane Letters, Goucher College
Doctor of Humane Letters, University of Baltimore
Doctor of Humane Letters, Villa Julie College

Carol Ann Baglin, Ed.D.

SUMMARY: Academic background in Special Education and Marriage and Family Counseling. Has extensive experience with specialized educational, social, and health services, State/Federal statutes and regulations and public/private funding mechanisms for programs and services for children with disabilities, as well as their families.

PRESENT POSITION:
Assistant State Superintendent
Division of Special Education/Early Intervention Services
Maryland State Department of Education

EDUCATION:
Graduate:
- Johns Hopkins University, Baltimore, Maryland
  Doctorate of Education, 2001
    Major area of study: Early Childhood
    Minor area of study: Special Education & Counseling
- The Lindenwood College, St. Charles, Missouri
  Master of Arts, 1978
    Major area of study: Marriage, Family, and Child Counseling
    Minor area of study: Psychological Assessment
- Coppin State College, Baltimore, Maryland
  Master of Education, 1973
    Minor area of study: Special Education
    Minor area of study: Mental Retardation

Undergraduate:
- Goucher College, Towson, Maryland
  Bachelor of Arts, 1971
    Major area of study: Psychology
    Minor area of study: Sociology

PRIOR EXPERIENCE:
- Supervisor of Special Education/Harford County Public Schools, 7/1995 - 7/1996
- Director, Maryland Infants and Toddlers Program (Part H)/Governor's Office for Children Youth, and Families, 11/1987- 7/1995
- Specialist, Federal and State Projects/Baltimore County Public Schools, 7/1984 - 11/1987
- Interagency Specialist/ Maryland State Department of Education, 3/1980 - 7/1984
- Regional Administrator/ Maryland State Department of Education, 11/1978 - 3/1980
- Assistant Project Director/ John F. Kennedy Institute, 9/1978 - 10/1978
- Coordinator, Special Education PL 94-142/ Riverside County Schools, Riverside, California, 1/1978 - 8/1978
- Marriage and Family Therapist/ Long Beach, California, 1975 - 1978
- Program Specialist, Mental Retardation/Los Angeles County Schools, 1975-1978
- Teacher, Special Education/Los Angeles County Schools, 1972-1975

- Instructional Assistant/Baltimore County Public Schools, 1971-1972

PUBLICATIONS:

- Bender, M., & Baglin, C. A. (Eds.) (in press). Recreation and Leisure for Infants and Toddlers with Disabilities. Champaign: Sagamore Publishing Co.
- Bender, M., Baglin, C. A. & Edwards, R. D. (1999). Your Child On Medication. Park City: Family Development Resources, Inc.
- Bender, M., Valletutti, P., & Baglin, C. A. (1998) Volume IV A Functional Curriculum for Teaching Students with Disabilities. Austin: Pro-Ed.
- Bender, M., & Baglin, C. A. (1997). Understanding your child with learning disabilities. Park City: Family Development Resources, Inc.
- Bender, M., & Baglin, C. A. (Eds.). (1997) Goldberg, H. K. The ABC's of sports vision. Park City: Family Development Resources, Inc.
- Bender, M., Valletutti, P., & Baglin, C. A. (1996) Volume I A Functional Curriculum for Teaching Students with Disabilities, 3rd Ed. Austin: Pro-Ed.
- Hunt, F., Mayette, C., Feinberg, E., & Baglin, C. A. (1994). Integration of behavioral consultation in an intervention setting. Infants and Young Children 7(2): 62-66.
- Baglin, C. A., & Bender, M. (Fds.). (1994) Handbook on quality child care for young children: Settings. standards and resources. San Diego: Singular Publishing Group Inc.
- Baglin, C.A. (1994). Child care in the nineties: Diversity and changing needs. In Baglin, C. A., & Bender, M. (Eds.). (1994) Handbook on quality child care for young children: Settings. standards and resources. San Diego: Singular Publishing Group Inc.
- Baglin, C.A. (1994). Child care settings and targeting care for quality. In Baglin, C. A., & Bender, M. (Eds.). (1994) Handbook on quality child care for young children: Settings. standards and resources. San Diego: Singular Publishing Group Inc.
- Bender, M., & Baglin, C. A. (Eds.). (1992). Infants and toddlers: A resource guide for practitioners. San Diego: Singular Publishing Group Inc.
- Baglin, C. A. (1992). Implementing early intervention in a child-care setting. In Bender, M., & Baglin, C. A. (Eds.). (1992). Infants and toddlers: A resource guide for practitioners (pp. 109-124). San Diego: Singular Publishing Group Inc.
- Baglin, C. A. (1992). Managing interagency resources. In Bender, M., & Baglin, C. A. (Eds.). (1992). Infants and toddlers: A resource guide for practitioners (pp. 125-152). San Diego: Singular Publishing Group Inc.
- Baglin, C. A. (1991, 1992, 1993, 1994, 1995) "From the Director...." Lead article UPDATE A quarterly publication of the Maryland Infants and Toddlers Program
- "New Directions in Care for the Handicapped Child" November/December 1982 ACCENT ON DD: Maryland State Planning Council of Developmental Disabilities
- WORKING TOGETHER: Collaborative Planning for the Handicapped Child in Maryland Manual: Division of Special Education/Maryland State Department of Education

ADDITIONAL INFORMATION:

Certifications:

- Advanced Professional Certificate: Special Education
- Supervision/Administration Certificate
- Marriage, Family, and Child Counselor: Board of Quality Assurance, California. Licensed: 1978 to present

Sidney H. Drake

Employment History:

2/2005 – Present **Program Manager III Senior, Chief of Information Technology**
Maryland State Department of Education
Baltimore, Maryland 21201

Responsibilities: The Maryland State Department of Education Chief of Information Technology (CIO) is responsible for directing and coordinating information technology resources and policies, and for providing technical assistance on information technology initiatives. The CIO provides leadership and direction in the development of long-range information technology initiatives and plans that are aligned with the Department of Education's Strategic Plan and are consistent with Statewide directives and initiatives; collaborates with executive staff and the Division of Assessment and Accountability for assessing technology requirements, providing direction on technology issues, and allocating resources necessary to accomplish missions; manages Information Technology staff and provides guidance for working toward goals and objectives and resolving problems through encouraging teamwork and innovation; coordinates the department's IT Steering Committee and directs the development and implementation of IT policy and standards.

1/2001 – 1/2005 Executive Director, Information Technology Services
Brookdale Community College
Lincroft, New Jersey 07738

Responsibilities: The Executive Director provides leadership and directs information technology activities relevant to supporting and advancing teaching, learning, research, and scholarship within the college. The Executive Director also provides leadership in project management, strategic planning, policy development, implementation, promotion, support and procurements of technology. The position is the primary liaison with the campus community and IT contractors and vendors providing services for the development and management of IT resources. The Executive Director supports the adoption of new technologies and provides leadership in the formulation of plans and team building in the use of information technology. Develops College-wide IT budget, administers related expenditures, monitors and evaluates results of IT activities. The Executive Director is responsible for reviewing the impact of major investments for IT improvements including reorganization of information technology infrastructure, management structure and establishment of technical standard. The Executive Director acts as direct liaison for the College with all external IT partners and collaborates with faculty, staff and administration in setting priorities, defining goals and the continuous upgrading of information systems. Serves as a catalyst for intra- and inter- departmental cooperation on IT initiatives including process review and re-engineering.

9/1999 – 1/2001=> **Acting Director for Information Technology**
8/1991 - 8/1995=> Director of Information Technology
University of Maryland Eastern Shore
Princess Anne, Maryland 21853

9/99 – 1/2001: The director for information technology oversees and directs activities relevant to information technology for the University. The director is responsible for the information technology strategic plan and policy development, which is aligned with the institutions' strategic plan. The implementation, applications, promotion and support of information

technology are the responsibilities of the director. The Director oversees the associate director for telecommunications, associate director for academic computing and administrative support technicians. The Director is responsible for forecasting, budget management, operations, development and management of the IT resources for the University. The director is the liaison with the campus community, IT contractors and vendors providing services to the University.

Committees: President Board of directors for the Lower Eastern Shore Shared Educational Network, Member University System of Maryland Information Technology Coordinating Council, Member University System of Maryland Academic Technology Services committee.

8/1991 - 8/1995 Responsibilities: The Director for Information Technology oversees and directs activities relevant to information technology for the University, this includes procurements, licenses, project management, strategic planning, policy development, implementation, promotion and support of applications of technology to achieve institutional goals. The Director is responsible for forecasting, budget management, operations, development and management of the IT resources for the University. The director is the liaison with the campus community, IT contractors and vendors providing services to the University.

Committees: Chairperson of the Telecommunications Advisory Committee and the Administrative Computing Advisory committee, member of the University's Administrative Council, Planning Commission and Athletic Committee, University's representative to the University of Maryland System Administration's Administrative Computing group and Telecommunication Council.

10/98 – 8/99=> **Supervisor for Technical Support**
1984 – 1990=> **Morgan State University, Baltimore, MD 21251**

10/98 – 8/99 Duties: Supervised administrative support technicians. Supervise the technical support services for the University's computers, data communications, and video hardware and software. Make recommendations for new or upgrading of existing information technological services and equipment. Assess and analyze information technology resource utilization to determine the present and future needs of the University. System manager, performance manager, cluster manager and security manager of the University's administrative computing systems and the campus networking systems are included in the duties. Installation and maintenance of operating systems. Provide technical advisement to the operations and programming staff.

Committees: Vice President Finance & Management project committee. VPFM annual facility retreat. Utility survey progress committee, University's information technologies users committee.

1984 – 1990 Duties: Supervised administrative support technicians. Designed, developed, coded, and implemented application programs for Human resource, Student information, Financial Records and Alumni Development Systems. Make recommendations for new and improvements to existing services and equipment. Assessed and analyzed information resource utilization to determine the present and future computing needs of the university. Supervised the design, development and implementation of applications programs, decision support systems, data base conversions and other computing services throughout the university. The duties included system manager, performance manager, installation and maintenance of the operating

systems, and cluster manager of the University's administrative computing systems. Provided technical advisement to the operations and programming staff. **Adjunct faculty** teaching computing courses at Baltimore City Community College.

11/96-9/98	**Director of Computing and Information Technologies, School of Management, Delaware State University**
8/95 - 10/96	**Director of Information Technology, Jackson State University Jackson, MS. 39217**
1990 - 1991	**Research Associate, Coppin State College, Baltimore, Md.**
1983-1984	**Lecturer. Baltimore City Community College, Baltimore, Md.**

EDUCATION

1994 to 2001		Information Systems
(ABD)		Nova Southeastern University
1991	M.A. Degree	Economics
		Morgan State University
1973	B.S. Degree	Business Administration
		Morgan State University
1989	Graduate	Information Systems Analyst
	Certificate	Bowie State University
1983	A.A. Degree	Computer Information Systems
		Baltimore City Community College

Certifications

06/01/02 Certified Quality Improvement Associate, American Society for Quality

ADDITIONAL EDUCATION

Graduate credits in Computer Science – 12 (Bowie State University)
Graduate credits in Management Information Systems – 24 (Bowie State University)
ColdFusion programming
American Society for Quality, Quality 101; 1.5 CEU
Geographic Information Systems

Experience with the following educational software, equipment and operating system:

Datatel's Colleague, Unidata, Unibasic, DMI, Envision; SCT's IA plus & Banner;
Windows XP, 2000, NT, 98 and 95, Sun Solaris, Novell NetWare, UNIX, MPExl,
IBM ES9000/MVS, RS/6000, IBM PS/2, and compatibles,
Pentiums, 486, 386; Compaq (Digital) Equipment Corp.,
Alpha series, VAX series, 11/785, MicroVAX;
Hewlett Packard HP3000, COBOL, BASIC, FORTRAN, Oracle SQL
ColdFusion, Dynamic & Static WEB Development, CISCO, 3Com

Active organizational affiliations:

(b)(6)

Gary Heath

Mr. Heath has been Assistant State Superintendent for the Division of Accountability and Assessment since January 2003. As Asst. Superintendent he is responsible for the design and implementation of all state assessment and accountability programs including the implementation of NCLB related assessments. Assessment responsibilities include development, management and oversight of preK-12 assessment programs including the Maryland School Assessment and Alt - MSA (tests that meet NCLB requirements) and the end-of course High School Assessment Program (Maryland's new high school exit program). Maryland works with several testing companies and administers nearly $40,000,000 in annual assessment related contracts.

Prior to becoming Asst. State Superintendent, Mr. Heath was Chief of the Arts and Sciences Branch in the Division of Instruction at the Maryland State Department of Education (MSDE). He managed over 20 professional staff, including all mathematics and science staff at MSDE. As Branch Chief he was responsible for all aspects of MSDE mathematics and science programs including curriculum, professional development, assessment, regulatory activities, and management of state and federal mathematics and science funding efforts. He was involved in a wide variety of minority achievement and MSDE accountability programs and managed over $75,000,000 in federal and state funding including the USDE Title II Eisenhower Professional Development Program.

Curriculum Activities: The development of the Maryland Content Standards for Mathematics, Science, Social Studies, and English/Language Arts, was guided by Mr. Heath. The Maryland Content Standards received high marks from all major outside evaluators including Education Week, the American Federation of Teachers, and other national organizations and are in use by all Maryland school systems.

Prior to joining MSDE in 1984 Mr. Heath was involved in a wide variety of mathematics and science curriculum and professional development programs at the U of California Berkeley's Lawrence Hall of Science (1971-1982) and at the Smithsonian Institution (1982-1983). He was project director of a NSF non-formal curriculum development project at Smithsonian Institution. At the Lawrence Hall of Science he was a curriculum author on many of the Hall's science and mathematics programs (OBIS, SCIS) and heavily involved in many NSF summer institutes for teachers as well as other, often NSF funded, science and mathematics professional development programs.

Anthony Palcher

Overview

Experienced Technical Service manager, leads technical staff and develops long range IT plans and initiatives. Educates, and enables MSDE staff to develop applications, manage hardware upgrades, handle desktop support, network troubleshooting, migration issues, and rollout products that are aligned with the business of MSDE. With strong organizational and motivational skills, and extensive background in Management, Electronics, Software Design, IT operations, Database Management, Networking, and Personal Computing.

Experience

Twenty-two years managing data center operations, and technical engineers, developing their skill sets, and developing standards and procedures. Twelve years experience, managing and training staff to troubleshoot software, hardware, on Local and Wide Area Network problems, using Compaq, DEC, 3-com, Hewlett Packard, and CISCO equipment. Proficient in managing HP3000, HP9000, Windows 9x, Windows NT, 2000, XP, and both 2000 & 2003 Advance Server.

Qualifications

- Currently Acting Deputy Director for MSDE/IT and managing the IT Site for MSEB
- Acting Chief Information Officer (CIO) for MSDE from April 2004 through January 2005.
- Managed 7 in-house support engineers and 4 remote resources to support a 800 node WAN
- Design, install, maintain, troubleshoot desktop and networking peripherals
- Provide technical training for staff and customers
- Evaluate Hardware, Software, and Services as they relate to future and existing plans
- Assist with presentations and preparation of Service Level Agreements
- Manage installation of hardware, upgrades, and third party resources
- Design and Implement Backup and Recovery strategy

Employment

2001 – Present	Deputy Director for MSDE/IT, develop standards, enforce policy, develop spending plans, and manage IT staff
1990 – 2001	Network Support Manager, Information Technology, Maryland State Department of Education
1985 – 1990	Technical Support Manager, Information Technology, Maryland State Department of Education
1984 – 1985	System Admin for MPE-ix and HP-UX systems, Information Management, Maryland State Dept of Education
1982 – 1984	System Programmer/Analyst, Information Manage, Maryland State Department of Education
1980 – 1982	Database Administration, Department of Health & Mental Hygiene, Division of MMIS
1980 – 1980	Sr. Programmer/Analyst, Maryland State College Information Center
1978 – 1980	Programmer/Analyst, Division of Data Processing, Department Health and Mental Hygiene
1975 – 1978	Production Control Manager, Division of Data Processing, Department Health and Mental Hygi
1973 – 1974	As a Senior in H.S., Repaired EAM and data entry devices, State of Maryland Work Study Program, IBM Corp.

Achieved Industrial Electronics and Computer Technology Diploma from Mergenthaler Voc/Tech H.S.

Education

Essex Community College

Information Management
COBOL programming I & II
RPG Programming
Assembly Programming Language
Visual Basic programming
Database Design
CICS Programming

Harford Community College

Introduction to Business
Micro & Macro Economics
Business Law
Management Structures
Quality Support Management
UNIX Operating System I & II
UNIX Shell Programming
Technical Writing

Towson University (workshop)

Managing the virtual office

College Course in italics are accredited

Technical training and workshops

70-58 Networking Essentials
70-73 Supporting NT Workstation 4.0
70-67 Supporting NT Server 4.0
70-59 Implementing TCP-IP on NT 4.0
70-68 NT Server 4.0 in the Enterprise
70-65 Programming with MS Visual Basic 5.0

Computer Based Training

CISCO Internetwork Operating System (IOS)
Configuring protocols on CISCO routers
Configuring CISCO LAN Switches
Basis Router Configuration
Advanced Router Configuration
CISCO Troubleshooting
CISCO LAN Configuration

Hewlett Packard Training

MPEix programming
HP3000 System Management
Image 3000 Data Base programming
HP3000 System programming
HP9000 HP-UX Administration

Edward W. Featherston, Jr.

SUMMARY OF QUALIFICATIONS

People-oriented professional with diverse background in research, data, and network management, policy analysis, administration, grant management, counseling, and direct service provider. Skilled in program development and implementation. Possess outstanding. communication, supervisory and motivational skills. Works well independently and in leadership positions

EXPERIENCE

MARYLAND STATE DEPARTMENT OF EDUCATION (MSDE)
DIVISION OF SPECIAL EDUCATION: Maryland 21201
Policy Systems Analyst- Technology *(1/94 to Present)*
To provide assistance and support to the division staff on the use of data systems and technology for planning and decision making in the areas of: the development of state plan for special education; preparation and follow-up of OSEP data request; development of state data collections manual; analysis of proposed state and federal legislation; policy interpretations; and implementation and development of database program to support the access of local education and state-operated program provider's education and fiscal data. Develop monitoring procedures and sampling methods for focused audits of local education programs and management information systems. Liaison between the Division of Special Education and Other state agencies, and other MSDE divisions such as the Division of Accountability and Assessment to coordinate information management and analysis of data provided to general public and research institutions. Special duties: Project Leader for the development and implementation of scalable internet based applications to support the Special Services Information System (SSIS) Data Submissions System, Statewide IEP System, and the Medical Assistance Consolidated Billing Program, Co-director of division responsibilities for a federal grant: Examining Alternatives for Outcome Assessment for Children with Disabilities, transition task force committee representative for division, Software Compliance Officer for division, coordinator of division MIS budget and Internet access. Sub Committee Chair (from 2002-2004) of the Education Information Advisory Committee (EIAC) which monitors federal data collection, evaluation, and assessment activities for quality, burden on state and local education agencies, and duplication with other activities; provides state and local education agencies with technical expertise; serves as a point of state consultation in the development of assessment, evaluation, and survey data collection programs; and represents chief state school officers in liaison functions between federal and state agencies

BALTIMORE SUBSTANCE ABUSE SYSTEMS, INC. :Baltimore, Maryland 21201
Management Information Systems (MIS) Manager (2/92-6/93)
Managed the MIS Component of the Federal Target Cities Demonstration Grant to Baltimore City for 45 Substance Abuse Treatment Programs. Supervised 6 MIS staff providing: technical assistance, application and proprietary software training, equipment procurement, and management of the cooperations communications systems, Local Area Network and Mini

Mainframe. Wrote quarterly reports, continuation applications, MIS budgets, budget modifications, budget narratives, and contract statements of work. Managed procurement for over $3,000,000 of EDP equipment and contractual services. Designed and wrote the MIS component of the grant application for the Baltimore City's Healthy Start Project.

Data Management Specialist (6/91-1/92)
Responsible for assisting in the collection and analysis of data pertaining to census, substance abuse and criminal justice. Created and updated data sets files using various statistical and graphics software systems for graphs, charts and reports. Assessed and recommended software applications for data management. Provided training for central office staff to use microcomputers, peripheral equipment, software packages. Maintained central office computers.

METWORK HEALTH SERVICES, INC.:Eldersburg, Maryland
Administrative/Addictions Consultant (4/90-4/91)
Provided individual and group counseling for 33 opiate addicted adults: wrote individual treatment plans; maintained records, and was the SAMIS liaison to the State. Wrote policies and procedures for a chemotherapeutic abuse program.

CENTER FOR UNIQUE LEARNERS, INC; Rockville, Maryland 20852
Curriculum Specialist/ Academic Therapist (8/88-8/90)
Evaluated educational test results and identified needs of students ranging from primary school to community college, with learning difficulties. Wrote I.E.P.s and therapy goals; provided educational counseling and parental consultation services; maintained student records.

UNIVERSITY OF MARYLAND; Baltimore, Maryland 21201
Group Therapist, Alcohol and Drug Abuse Program (10/87-10/89)
Served as group psychotherapist for alcohol and drug abuse offenders. Provided individual and group consultations; maintained records.

THE AMERICAN UNIVERSITY; Washington, D.C. 20016
Consultant, Center for Psychological and Learning Services (8/85-1/89)
Developed a computer assisted word processing lab for dyslexic college students and managed its grant fund. Researched and purchased software, hardware, and peripheral devices; provided tutoring services and seminars for staff and students. Represented Center in departmental panel discussions. Wrote instructional manuals, job descriptions, purchase orders, inventory, and projected growth plans.

JEWISH FOUNDATION FOR GROUP HOMES, INC.; Rockville, Maryland 20852
Behavior Management Committee Member (1/87- 8/88)
Participated in approval of clients behavior management plans in accordance with MR/DDA and State regulations.
Community Apartment Program Administrator (5/86-1/87)
Directed expansion of new program providing services for learning disabled, mentally retarded, and chronically mentally ill adults. Interviewed, hired, and supervised resident staff; coordinated and chaired annual client reviews; prepared quarterly case reviews; maintained state licensing.
Community Apartment Program Supervisor (2/86 -5/86)

Supervised direct care counselors and over saw provision of services to LD, MR, and emotionally disturbed adults. Interviewed, hired, and trained counseling staff; prepared job descriptions; staffed and opened ALUs and apartments.

Resident Counselor (7/85-10/84)

Supervised and provided counseling services to LD, MR, and Ed adults ages 22-45.

EDUCATION

TOWSON UNIVERSITY; Towson, MD 21204

Master of Arts in School Psychology , June, 2000

THE AMERICAN UNIVERSITY; Washington, D.C. 20016

Master of Arts in Psychology, December, 1992

Masters Thesis: A study of micro and personal computer applications for dyslexic college students.

THE AMERICAN UNIVERSITY; Washington, D.C. 20016

Bachelor of Arts in Psychology, August 1985

DULANEY HIGH SCHOOL; Timonium, MD 21093

Diploma, May, 1981

SKILLS

- ✓ Knowledgeable in SPSS, Systat, SAS, D-base, Access, Approach, Fox Pro, Lotus, Excell, Harvard Graphics, Freelance Graphics, PageMaker, Microsoft Publisher, Power Point, WordPerfect , Word, WordStar, Microsoft Project Manger, NetWare, Netscape, TCP-IP, Hyper-Access, Procomm Plus, Winfax, PC Anywhere, PC tools, Nortons Utilities and interfacing hardware and various peripheral devices.
- ✓ Computer and software project management, network administration, webpage design, intranet management and training
- ✓ Experience with psychometric and projective test administration of: the Wechsler Intelligence Sales, Stanford-Binet, Rorschach, Bender, RAT, TAT , CAT , HTP, Draw a person test, and other self-report inquiries and interview protocols.

Jacqueline A. Nunn, Ed.D.
Director, Johns Hopkins University Center for Technology in Education

Education

Ed.D.: Department of Human Communication and Its Disorders, Johns Hopkins University, Baltimore, Maryland, 1988

M.Ed.: Virginia Commonwealth University, Richmond, Virginia, 1971 Emphasis: Teaching Children with Severe Emotional Disturbances

B.S.: Florida State University, Tallahassee, Florida, 1970 Major: Social Welfare, Minor: Psychology

Experience

1990-present: Director, Center for Technology in Education (formerly the Center for Technology in Human Disabilities), Johns Hopkins University, Baltimore, MD

1997-2001: Chair, Department of Technology in Education, Johns Hopkins University, Baltimore, MD

1990-2001: Program Coordinator, Technology in Special Education Graduate Program, Johns Hopkins University, Baltimore, MD

1988-90: Research Associate, Center for Technology in Human Disabilities, Johns Hopkins University, Baltimore, MD

1988-90: Education Consultant, IBM, Education Industry Division, Atlanta, GA

1981-86: Principal, Fairfax County Public Schools, Fairfax County, VA

1980-81: Education Specialist, National Association of State Directors of Special Education, Washington, DC

1975-80: District Administrator/Supervisor, Non-Categorical Preschool Program for Children with Disabilities, Fairfax County Public Schools, Fairfax County, VA

1972-75: Teacher/Outreach Coordinator, School for Contemporary Education, Alexandria, VA

1971-72: School Psychologist, Leon County Mental Health Center, Tallahassee, FL

1967-71: Teacher, Glenn Lea Elementary School, Richmond, VA; Medical College of Virginia Residential Treatment Center for Children, Richmond, VA; Montanari Residential School and Treatment Center, Hialeah, FL; Summer Head Start Program, West Palm Beach, FL

Selected Publications

- Nunn, J. A., Lowry, A. E., Peloff, D., & Pierrel, E. (2005). Communities and portfolios: Infusing Web-based tools into teacher preparation programs. In S. R. Rhine & M. Bailey (Eds.), *Transforming Learning through Technology* (pp. 79-92). Eugene, OR: ISTE.
- Nunn, J. A., & Warger, C. L. (Eds.) (2005). Considering the need for assistive technology within the Individualized Education Program [Monograph]. *Technology for educators series.* Baltimore, MD: Johns Hopkins University Center for Technology in Education & Technology and Media Division Monograph Series. Arlington, VA: Council for Exceptional Children.
- Nunn, J. A., Kadel, R. S., & Karpyn, A. E. (2002). A digital divide in Maryland. *The Electronic Journal of Communication/La Revue Electronique de Communication, 12* (2).
- Nunn, J. A. (2001). The teacher as advocate: Preparing teachers to uphold and embrace equal access legislation. *Virginia Society for Technology in Education Journal, 15* (2), 14-16.

- Nunn, J. A. (2000). Ensuring equal access for all students: Preparing tomorrow's teachers to use technology to improve the educational outcomes of students with disabilities. In *Log on or lose out: Technology in 21st Century teacher education* (pp. 12-22). Washington, DC: AACTE.
- Nunn, J. A., Rein, J. J., & Pierrel, E. (1999). Together for good in Maryland: Technology planning and integration in schools [Monograph]. In J. A. Nunn (Ed.), *Technology for educators series*. Baltimore, MD: Johns Hopkins University Center for Technology in Education.
- Nunn, J. A., McPherson, S., & Rust, W. D., IV. (1998). Preparing teachers for school-based technology leadership. *1998 Technology and Teacher Education Annual* (pp. 1021-1024). Charlottesville, VA: Society for Information Technology and Teacher Education.
- Rein, J. J., & Nunn, J. A. (1997). Adapted pencils to computers: Strategies for improving writing [Monograph]. In J. A. Nunn (Ed.), *Technology for educators series*. Baltimore, MD: Johns Hopkins University Center for Technology in Education.
- Nunn, J. A. (1993). The U.S. research agenda for technology and special education and suggestions for joint research projects. In *Conference proceedings of the Fourth Annual Symposium on Special Education Technology* (pp. 37-43). Taipei, Taiwan, Republic of China.
- Nunn, J. A. (1992). Evaluation of the integration of technology into the elementary school setting for children with mild to moderate disabilities: Results of a 5-year research project. In *Conference proceedings of the Third Annual Sino-American Symposium on Special Education Technology* (pp. 74-84). Taipei, Taiwan, Republic of China.
- Panyan, M., Hummel, J., McPherson, S., Nunn, J. A., & Steeves, J. (1991). *Evaluation of the integration of technology for instructing handicapped children.* Baltimore, MD: Johns Hopkins University Center for Technology and Human Disabilities.
- Nunn, J. A. (1990). *The principal's assistant: An easy-to-follow guide to help you make computers work in your school.* White Plains, NY: IBM.

Selected Inventions

- Electronic Learning Community (ELC): A collaborative, Web-based tool designed for communication and knowledge management for education professionals. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1605, February 2002.
- Electronic Portfolio (EP): A template-driven, standards-based application, designed primarily for the education community, which facilitates the development of content-rich professional portfolios. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1752, July 2002.
- Student Compass: A Web-based application for monitoring student performance in areas such as: state content standards and curriculum, state assessments, Individual Education Plan goals; instructional strategies use, and behavior. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1750, July 2002.
- Teacher Compass: A Web-based application for administrators to use when observing and evaluating teachers. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn 1751, July 2002.
- Project Builder: A Web-based application to help teachers create effective lesson plans and project-based learning units that maximize learning opportunities for all students. Approved

for external licensing by JHU Office of Technology Transfer. Reference number Nunn1753, July 2002.

Selected Grants

- Principal Investigator, (1993-Present). *MSDE Core Partnership Grant: Ensuring access to educational opportunity, transforming instruction to create more inclusive classrooms, and fostering leadership in educators through the uses of assistive, instructional, and leadership technologies.* Funded by the Maryland State Department of Education.
- Principal Investigator, (2003-2006). *Maryland early intervention/special education online data collection and decision support system*. Funded by the Maryland State Department of Education.
- Co-Principal Investigator, (2004-2006). *Develop and implement a statewide accountability system for measuring outcomes for infants, toddlers, and preschoolers with disabilities and their families.* Funded by the U.S. Department of Education, Office of Special Education and Rehabilitative Services General Supervision Enhancement Grant Program.
- Co-Director, (2000-2006). *Maryland Digital Schools.* Funded by the U.S. Department of Education, Office of Innovation and Improvement Star Schools Program, in partnership with Maryland Public Television.
- Co-Principal Investigator, (2000-2005) *Boundless Learning: A school-wide instructional model to improve performance of diverse learners.* Funded by U.S. Department of Education, Office of Special Education and Rehabilitative Services Model Demonstration Program.
- Principal Investigator, (1996-2003). *Online evaluation and reporting system for the Technology Innovation Challenge Grant Program and the Southeast Cluster technical assistance project*. Funded by the U.S. Department of Education, Office of Educational Research and Improvement Technology Innovation Challenge Grant Program.
- Co-Principal Investigator, (2001-2003). *Student Compass: A Web-based data collection tool for monitoring student progress to improve the learning and performance of students with disabilities in general education classes.* Funded by U.S. Office of Special Education and Rehabilitative Services Technology and Media Steppingstones of Technology Innovation for Students with Disabilities Program.
- Principal Investigator, (1999-2003). *Integrating technology into the Johns Hopkins University teacher preparation graduate education programs.* Funded by the U.S. Department of Education, Office of Postsecondary Education Preparing Tomorrow's Teachers to Use Technology Program (PT3).
- Principal Investigator of JHU sub-grant, (1998-2003). *Maryland teaching and learning with technology consortium.* Funded by the U.S. Department of Education, Office of Educational Research and Improvement Technology Innovation Challenge Grant Program, in partnership with the Montgomery, Baltimore, and Prince George's County Public Schools and the Maryland State Department of Education.
- Co-Principal Investigator for JHU sub-grant, (1995-2000). Integrating schools and work on the information highway: The Baltimore initiative. Funded by the U.S. Department of Education, Office of Educational Research and Improvement, in partnership with Baltimore City Public Schools and the Johns Hopkins University Institute of Policy Studies SCANS office.

Elaine E. Urbanski, M.A.S.
Project Manager, Johns Hopkins University Center for Technology in Education

WORK HISTORY: **Johns Hopkins University Center for Technology in Education (CTE)**, Columbia, MD.

Project Manager: **2002 – present**

Project Manager for federal General Supervision Enhancement Grant

- Direct a team to develop outcomes/measures for children (birth to age 5) and the technical infrastructure to collect and aggregate data. Online course development and dissemination is an integral part. This one-year $850,000 grant awarded by the U.S. Dept. of Education to the Maryland State Department of Education and contracted to CTE.
- In Phase I, designed a linked Early Intervention and Special Education online database and reporting system that provides Maryland's leaders information that drives decision-making and improves services and supports to children and youth with disabilities.
- Lead committees and focus groups to facilitate collaboration in order to achieve the best product. Present information to the Asst. Superintendent for Early Intervention and Special Education, local Special Education Directors, Local Infant and Toddler Directors, Early Childhood Coordinators and at state and national conferences.
- Coordinate the work of a database developer to ensure accurate database content and reports. Lead a team to design, test, and pilot the new application.
- Write reports to comply with policy mandates from the U. S. Department of Education. Article published in, "Managing School Business," Vol. 7, Issue 15, October 24, 2002.
- Design/conduct training for the new database and reporting system.

CTE projects managed/supported. Nov. 1999 - Dec. 2001

- **Project Manager** for the development, training, and technical support for the Online Reporting System that is used by over 100 U.S. Department of Education's Technology Innovation Challenge Grant projects and Congressional Award projects. ($225,000 grant). Wrote subsequent grant to obtain $100,000 in funding to sustain the database development/training.
- Co-wrote and was awarded a one-year, $100,000 Eisenhower grant. Advised teachers in action-research concepts. Conducted teacher/student observations to determine the effect of technology on student achievement (grant objective). Wrote final evaluation and grant summary report.

Sylvan Learning Systems, Baltimore, MD. Research and Evaluation Manager. 1998-1999

- Developed and administered 65 Quality Assurance Reviews (QAR) to Sylvan Centers in school districts throughout the U.S. Observed and evaluated

instruction, testing, center administration, student portfolios, environment, and contract obligations using this 4-point rubric scale.

- Analyzed and provided reports and graphs of test data (California Achievement Test, Iowa Test of Basic Skills, SAT9, SOL, and CTBS) to provide evidence of student progress in Sylvan Learning Centers and to determine future markets.
- Researched and developed an early childhood evaluation model for Sylvan's Early Childhood Program that was based on the National Association for the Evaluation of Young Children's standards. Using the model, observed and evaluated eight classrooms and reported results.
- Conducted principal, parent, and student interviews and surveys to gather information about program quality.
- Developed presentations for local and national audiences such as: school boards and administrators, Sylvan management, teachers, and parents.

Canton Middle School, Baltimore, MD. Administrator, Business/Community Partnerships 2/95 – 6/98

- Recruited and directed programs with Canton's business partners including: Struever Brothers, Eccles, and Rouse, 1st Mariner Bank, Maryland Stadium Authority, Chesapeake Bay Trust, Sheraton Hotel, RM&D, and Hillis-Carnes Engineering Assoc. Contributions (direct and in-kind) were $100,000 annually.
- Prepared grant proposals, reports, and graphs depicting student achievement.
- Facilitated Canton's Parent Advisory group. Wrote parent newsletter.
- Trained staff, students, and parents computer software and Internet research.
- Researched, wrote, and taught the history of the Canton region in a multi-age, fully inclusive classroom. Published the "Our Community" booklet.

Essex Community College, Baltimore, MD. Speech Instructor. (evenings) 9/82 – presently

- Teach adults Speech 101 (3-credit course).

College of Notre Dame of Maryland. Instructor (weekend college). 7/97 – 7/99

- Taught the graduate course, "Computers for Instruction and Management."

Baltimore Gas & Electric Company (BGE) Marketing Research Analyst. 3/92 – 2/95

- Chaired product teams, wrote business plans, and implemented pilots.
- Conducted research (phone and mail surveys, database and trend analysis, benchmarking, and focus groups) for new and existing products and programs to determine effectiveness and customer satisfaction. Collaborated with staff and vendors to assess products and to achieve results at lowest cost.
- Received certificates and training in marketing and research from the Advertising Association of Baltimore and George Washington University.

Baltimore Gas & Electric Company (BGE). Education and Volunteer Programs Administrator. 5/82-2/95

- Directed the work of three staff and hundreds of BGE volunteers in designing, implementing, and evaluating various programs in Baltimore City Public Schools and non-profit organizations. Trained and recognized the efforts of volunteers.

- Wrote proposal to BGE's board of directors to install 30-networked computers at Southern High School. Directed a team in the development of a 36-week job readiness curriculum that was taught by BGE employee volunteers.
- Wrote, implemented, and evaluated a 3-year Drop-Out Prevention Program. This collaborative program with Sheppard Pratt led to Calverton Middle School's award of a $2 million grant from the Edna-McConnell Clark Foundation.
- Administered the "Vocational Enhancement Program" that paired 12 BGE employees with Carver Vocational-Technical High School staff to teach students job skills. Provided six students with a summer work experience at BGE.
- Coordinated a reading program that matched George Street Elementary School students with BGE employee volunteers.
- Wrote and produced proposals, brochures, speeches, and video scripts for BGE's education/volunteer programs resulting in BGE's receipt of: President's Volunteer Action Award, Edison Award, and Mayor's Business Recognition Award.
- Served as President of the Maryland Volunteer Network. Presented information on School-Business Partnerships to: Baltimore City Principal's Academy, Maryland Chamber Fdn., Georgia Power & Light, National Conference on Partnerships in Education. Greater NY's Grantmaker's Assn.

EDUCATION: Johns Hopkins University, Baltimore, MD, Masters of Administrative Science, Behavioral 1984.
Loyola College, Baltimore, MD, Bachelor of Arts, Economics and Business, 1980.
College of Notre Dame, Baltimore, MD, Accelerated Certificate in Teaching Program, Certified Teacher in the State of Maryland, 1996.

David Charles Peloff, M.A.
Program Director, Emerging Technologies
Johns Hopkins University Center for Technology in Education

EDUCATION

M.A., 1997, Curriculum and Instruction (Educational Technology emphasis), University of North Carolina at Chapel Hill, Chapel Hill, North Carolina
B.S., 1990, Business (Marketing emphasis), Indiana University, Bloomington, Indiana

PROFESSIONAL EXPERIENCE

Program Director for Emerging Technologies, 2000 to present, Center for Technology in Education (CTE), Graduate Division of Education, School of Professional Studies in Business and Education (SPSBE), Johns Hopkins University (JHU)
Adjunct Instructor, 1997 to present, JHU Graduate Division of Education, SPSBE
Program Coordinator for Online Learning and Distance Education, 1997 to 2000, JHU CTE
Program Director, LEARN North Carolina, 1996 to 1997, University of North Carolina (UNC) at Chapel Hill, a partnership of the School of Education and the Institute for Academic Technology
Program Manager, Carolina Teaching Fellows Program, 1992 to 1996, UNC at Chapel Hill, School of Education
Adjunct Instructor, 1995 to 1996, UNC at Chapel Hill, School of Education

INVENTIONS

Electronic Learning Community (ELC): Web-based tool that supports communication, knowledge management, and resource sharing for education professionals. Approved for external licensing by JHU Office of Technology Transfer: Reference number Nunn1605, February 2002.
Electronic Portfolio (EP): A template-driven, standards-based application, designed primarily for the education community to facilitate development of content-rich professional portfolios. Approved for external licensing by JHU Office of Technology Transfer: Reference number Nunn1752, July 2002.

CLASSROOM INSTRUCTION

Telecommunications for Advanced Instructional Strategies (893.542): Winter 2003, Winter 2002, Spring 2001, Winter 2001, Summer 2000, Spring 1999, JHU
Electronic Coaching and Mentoring on the Internet (893.645): Fall 1999, Summer 1998, Spring 1998, JHU
Teaching and Learning with Technology (ED45): Spring 1996, Fall 1995, UNC at Chapel Hill

GRANTS

Federal STARS Schools: Maryland Digital Schools, a Partnership with Maryland Public Television (MPT): Technical Coordinator, 2000 to present; funded by U.S. Department of Education to build and implement technology-supported tools and practices to help teachers improve instructional delivery, technology use, and communication with parents.
Maryland Technology Academy Leadership Program, a partnership with Towson University: Lead Technical Developer for online applications, communication systems, and

Web sites, 1999-2003; funded by the U.S. Department of Education's Technology Innovation Challenge Grant program and the Maryland state legislature to prepare teachers to serve as change agents in their schools and districts by contributing to research and best practices concerning technology integration and disseminating these practices through training and mentoring.

The Maryland Technology Consortium (MTC), a partnership with Montgomery County Public Schools, Baltimore County Public Schools, Prince George's County Public Schools, Maryland State Department of Education, Maryland Public Television, Microsoft, Simon and Schuster, the National Geographic Society, and Inspiration Software : Technical Coordinator for Web site development and intervention tracking database and consultant to all partners, 1999-2003; funded by the U.S. Department of Education's Technology Innovation Challenge Grant (TICG) to help create school-based technology leaders, to provide proven professional development models that schools can adopt; and to inform school principals and administrators how to plan, align, and lead school-improvement initiatives that integrate technology.

JHU Division of Education Technology Infusion Grant: Lead Technical Developer, directing development of electronic portfolio, data collection and aggregation system, online tutorials, and Web sites, 2000-2003; funded by the U.S. Department of Education's Preparing Tomorrow's Teachers to Use Technology (PT3) program to overhaul JHU's pre-service teacher education programs to infuse technology into the curriculum, align it with state and national technology and content standards, and ensure that graduates are prepared to learn and teach in technology-rich environments. Activities include modification of course syllabi to embrace technology-related objectives and activities, enhancement of faculty technology skills, enrichment of technology resources for students and faculty, creation of Electronic Learning Communities, adoption of online course technologies, and institution of an Electronic Teaching Portfolio and an electronic case study database.

Maryland Online IEP Initiative: Technical Coordinator, providing technical consultation and coordination of outsourced work, 2003-present; funded by MSDE to develop an online IEP system to collect data on children and youth with disabilities for more informed decision making at the state, local, district, and classroom level.

Technology Innovation Challenge Grant I: Putting Schools to Work on the Information Highway—The Baltimore Learning Communities, JHU Institute for Policy Studies and the Baltimore City Public School System: (Technical Coordinator, 1998 – 1999); funded by the U.S. Department of Education, Office of Educational Research and Improvement through Baltimore City Public Schools to deliver a multi faceted program using electronic case studies and telecommunication tools to transform curricula and assessments and connect Baltimore City high-school students with places of work and the community at-large.

Baltimore City Public School Principals' Mentoring Program: (Technical Coordinator) 1998 to 1999; Funded by the Baltimore City Schools to provide peer and mentoring support to first-year principals.

Southeast Cluster Online Learning Community, Baltimore City Public Schools: (Technical Coordinator); funded by the U.S. Department of Education's Technology Innovation Challenge Grant program to support a Web site for the southeastern U.S. Technology Challenge Grant projects.

CONTRACTS

Public Broadcasting Corporation (PBS) Electronic Portfolio: Technical Director, August 2003 to August 2004. Contract to provide 250 end user copies of the electronic portfolio; set-up, maintenance and installation services to support the electronic portfolios; and online technical support and training.

University of Texas-Pan American Electronic Portfolio: Project Supervisor, April 2003 to April 2004; contract to provide set-up, maintain and install 500 individual electronic portfolios and online technical support and training.

LECTURES AND PROFESSIONAL PRESENTATIONS

Peloff, D., Hansen, R., and Devanney, G. (2003). Developing and Assessing E-Portfolios in Teacher Education: What Role Can E-Portfolios Play in Improving and Ensuring Teacher Quality? National Board for Professional Teaching Standards National Conference, Washington, D.C.

Peloff, D., Hansen, R., and Devanney, G. (2003). The Johns Hopkins Approach To Using Electronic Portfolios In Teacher Preparation. The Association for the Advancement of Computing in Education (AACE) National Conference, Albuquerque, NM.

Peloff, D., Hansen, R., and Devanney, G. (2003). Integrating Feedback and Reflection into the Portfolio Process. AACTE Special Institute on Technology and Organizational Change, Xavier University, New Orleans, LA.

Peloff, D., Hansen, R., and Devanney, G. (2003). Electronic Portfolios in Teacher Preparation: Lessons Learned from Building and Implementing a Dynamic, Web-based EP system. American Association of Colleges for Teacher Education (AACTE) National Conference, New Orleans, LA.

Lowry, B., **Peloff, D.,** and Hansen, R. (2002). Collect, Select, and Reflect: Using Electronic Portfolios in Teacher Education. The Association for the Advancement of Computing in Education (AACE) National Conference, Nashville, TN.

Peloff, D. and Devanney, G. (2002) The Johns Hopkins Electronic Portfolio Process, the National Education Computing Conference (NECC), San Antonio, Texas.

Lowry, B., **Peloff, D.,** and Walsh, P. (2000) Electronic Learning Communities: Engaging Online Learners, TeleCon East Conference & Expo , Washington, D.C.

Lowry, B. and **Peloff, D.** (1999) The Rise and Fall (and Rise Again) of Electronic Learning Communities, National Education Computing Conference (NECC), Atlantic City, NJ.

Mainzer, L., Lowry, B. and **Peloff, D.** (1999) The TeamTech Learning System: An Electronic Learning Community, Florida Educational Technology Conference (FETC), Orlando, FL.

Lowry, B. and **Peloff, D**., (1998) Unlocking the Power of the Web for Collaboration: A Case Study, International Society for Technology in Education (ISTE) Tel-Ed National Conference, New Orleans, LA.

Peloff, D. (1997) LEARN North Carolina: Building a Statewide Electronic Support System for Teachers, Charlotte-Mecklenburg and Cleveland County Schools.

Peloff, D. (1997) LEARN North Carolina: Building a Statewide Electronic Support System for Teachers, Buncombe County and Asheville City Schools.

Robin D. Gross

SUMMARY

Twenty-five years experience in Information Technology and Education focusing on project management, business development, consulting, training, complex solution design and implementation, business development, consulting, training, systems integration, and packaged software implementation. Ms. Gross completed graduate and postgraduate work in Special Education and is Certified as an IBM Project Management Executive and IBM Solutions Manager. In addition, Ms Gross has been the project manager or project executive on several public sector projects.

Johns Hopkins University, Center for Technology in Education Associate - 1999 - Current

Project Management and Business Development

Working with CTE leadership team and project teams on structuring projects for success with clearly defined Scopes of Work, detailed project plans and task estimates. Defined project management methodologies and project approaches for technology solutions for database capture and retrieval systems, distance learning, web-based applications, and packaged software implementations. Managed the development of the Special Services Information System (SSIS) for the Maryland State Department of Education (MSDE). Developed and taught classes in project management, leadership, and solution definition processes to all CTE project resources. Assisting CTE Director and leadership team to transform CTE business processes, determine what new business areas to focus on, how to structure new business areas, and determining which opportunities and partnerships to pursue to further CTE's mission of helping schools and teachers integrate technologies into the classroom.

IBM Corporation - 1984 – March 1999

Business Area Manager and Project Management Executive

Managed the Government J.D Edward's practice including delivery and marketing as a second-line manager. Grew resources in delivery practice and doubled revenues for both the second and third years of profitable business. Sold and negotiated contract for largest J.D. Edward's Government contract of $17M. Expanded practice focus to include SAP solutions working with the cross-industry IBM SAP delivery organization. Responsible for on-time and within budget delivery of a portfolio of projects and a team of approximately twelve resources and numerous subcontractors.

Principal and Project Management Executive

Served as the Principal for Government Industry focused Consulting and Systems Integration engagements. Performed as the Proposal Manager and Systems Architect for a Statewide Warrants system. Project included the development of data architecture and data model. Created the Statement of Work and negotiated the contract for this $3M application development project.

Took over as Project Management Executive for an $11M Public Safety and Justice client-server implementation project for a state agency. Turned around troubled project, obtained customer acceptance and holdback payment. Initiated a new practice focused on financial and human resource package implementation for Government using J.D. Edwards software. Hired ten resources to startup practice, which was profitable in the first year and closed over $2M in new business. Managed a team of approximately fifteen resources.

Business Development

Developed new technology and industry based services offerings to provide replicable solutions and ongoing services revenues stream. Initiated a relationship with the vendor of an object-oriented application development environment with the capability to build industry application frameworks. This approach to application development and reuse has been adopted by several of IBM's Industry Solution Units. Managed the development of a business plan and market entry strategy for a new managed care health industry solution for Disease Management. Working closely with an IBM's business partner, marketing this new offering to Managed Care organizations. Successfully recruited an industry leader in managed care and a preeminent medical institution as development partners.

Solution Specialist

Lead a team of 4 solution specialists covering a territory that included 6 business units with a combined quota of $20M. Responsibilities included developing services strategies for each business unit along with the IBM client team, selling consulting services directly to customers, mentoring team members, qualifying opportunities, developing proposals, designing solutions, writing Statements of Work, negotiating with subcontractors, interfacing with contracts and legal, determining pricing strategy, and packaging offerings. Responsible for forecasting revenue and profit. Made team quota objectives and grew business by over 90% year-to-year growth.

Sold and managed an engagement for a large non-profit to reengineer their business processes and develop a technical infrastructure to support their new business strategy. Used information engineering methodology coupled with group facilitated user requirements gathering sessions. Captured business, process and data models in Knowledgeware's case tool. Worked on solution for large Public School District, which included administrative and instructional software solutions as well as infrastructure and networking.

Project Management

Took over management of a $5M systems integration project for a large metropolitan police department. This project provided a turnkey system to dispatch calls, manage resources, and establish record keeping and reporting. Resolved subcontractor performance issues, restructured delivery schedule and obtained customer executive commitment to project. Managed technical team porting solution to new operating system and hardware. Delivered system with high level of customer satisfaction. Project was featured in IBM Annual Report and industry advertisements.

Managed a unit of ten billable resources working on a variety of customer projects in the Washington area. Responsible for customer satisfaction and quality of performance on each project. Performed personnel management tasks including salary and performance reviews. Responsible for forecasting profit and revenue and for meeting utilization and profit targets.

Application Developer

Led and performed on several large application development projects. Experienced in full development life cycle from requirements analysis through implementation. Project roles included project manager, business analyst, system test leader, and conversion analyst.

EDS Corporation - 1980-1984

Team Leader and Application Developer
Led an eight-person team in development of Payables subsystem of a financial accounting system. Project included requirements analysis, design, development, and testing for a large on-line system. Responsible for project planning and work assignments as well as formal appraisals of team members.

Developed the project schedule for a large government bid. Project duration was ten years with a roll out of equipment and software to over 140 sites around the world. The project schedule integrated the input from ten different proposal teams and was a proposal deliverable. This winning bid was for a $600M multi-year effort to automate all administrative systems.

Education

Bachelors of Science, Special Education, Rutgers University
Masters of Science, Exceptional Education, University of Wisconsin
IBM Classes:
Global Business Management Institute, President's Class, Project Management, Systems Integration, Client Server, Worldwide Objects Conference, Data Base Analysis and Design, Business Information Modeling, Proposal Development, Joint Application Development, Consultative Marketing, Managing the Application Development Process, Contract Management, Government Industry Forum, and Health Care Industry Forum.

K. Lynne Harper Mainzer, Ed. D.
Sr. Associate Director and Program Director, Research and Development
Johns Hopkins University Center for Technology in Education

EDUCATION

Ed.D., 1999, Johns Hopkins University, Baltimore, Maryland. Dissertation: *The effects of a team based procedural facilitator, TeamView, on the performance of students with mild disabilities in general education classes.*

M.Ed., 1976, Special Education, The American University, Washington, D.C.

B.A., 1971, Sociology, Dunbarton College of Holy Cross, Washington, D.C.

PROFESSIONAL EXPERIENCE

Sr. Associate Director, 2003-present

Program Director, Research and Development, 1993 to present, Center for Technology in Education (CTE), Graduate Division of Education, School of Professional Studies in Business and Education (SPSBE), Johns Hopkins University (JHU), Columbia, Maryland

Program Facilitator, Success for All/Roots and Wings Program, 1989 to 1993, Coordinator of Success for All Middle School Project: Baltimore City; Coordinator of Success for All Project: Philadelphia; Coordinator of Roots and Wings Special Education Project, JHU Center for the Social Organization of Schools

Instructor, 1993-present, JHU

Adjunct Instructor/Special Education, Summer 1993, College of Notre Dame of Maryland

Adjunct Instructor, 1989-1990, Western Maryland College

Department Chair: Special Education and Guidance, 1980 to 1989, Carroll County Public Schools, Francis Scott Key High School, Union Bridge, MD. Special Education Teacher (Grades 9-12); Chair: Admissions, Review, and Dismissal; Co-chair: Cooperative Learning Inclusion Team; School-based Coordinator: MD Tomorrows Program; Coordinator: Peer Tutoring Instructional Aide Program

Carroll County Public Schools Adult Education Instructor, GED Program, 1980 to 1982, Francis Scott Key High School, Union Bridge, MD

Montgomery County Public Schools Special Education Resource Teacher, 1976 to 1980, Sherwood High School, Sandy Spring, MD

Montgomery County Public Schools Teacher's Assistant, 1972 to 1973, Counseling Resource Program, Eastern Junior High School, Silver Spring, MD

Archdiocese of Washington Grades 5 and 6 Teacher, Reading and Social Studies, 1971 to 1972, St. Bernadette's School, Washington, DC

PROFESSIONAL LICENSURE AND CERTIFICATIONS

Maryland State Department of Education: Advanced Professional, 1977-Present
Certificated Areas: Secondary School Principal and Supervisor, Special Education (K-12), Reading Teacher (K-12)

PROFESSIONAL HONORS AND AWARDS

Carroll County Outstanding Teacher Award, Carroll County Public Schools, Westminster, MD, 1989

INVENTIONS

Student Compass: A Web-based application for monitoring student performance in the following areas: state content standards, reading, homework completion, attendance, teamwork tasks, instructional strategies use, and behavior. Approved for external licensing by JHU Office of Technology Transfer: Reference number Nunn1750, July 2002.

Teacher Compass: A Web-based application for administrators to use when observing and evaluating teachers. Approved for external licensing by JHU Office of Techno logy Transfer: Reference number Nunn 1751, July 2002.

Project Builder: A Web-based application to guide teachers in creating lesson plans and project-based learning units based on CTE instructional model. Approved for external licensing by JHU Office of Technology Transfer: Reference number Nunn1753, July 2002.

PUBLICATIONS

Mainzer, K.L.H., (1999). The effects of a team-based procedural facilitator, TeamView, on the performance of students with mild disabilities in general education classes. Unpublished dissertation: Johns Hopkins University.

Mainzer, K.L.H., Lowry, A.E., Mainzer, R.W., Nunn, J. A., Baltzley, P.C. (1997). TeamView: A tool for building high performance teams. Center for Technology in Education, Baltimore, MD.

Mainzer, K.L.H., Lowry, A. E., Nunn, J. A. (1997). Team Research and Learning. Center for Technology in Education, Baltimore, MD.

Mainzer, R. W., **Mainzer, K.L.H.**, Slavin, R.E., & Lowry, A. E. (1993). What special education teachers should know about cooperative learning. *Teacher Education and Special Education*, 16 (1), 42-50.

Slavin, R. E., Madden, N., Shaw A., **Mainzer, K.L.H.,** & Donnelly, M.C. (1993). Success for all: Three case studies of comprehensive restructuring of urban elementary schools. In Joseph Murphy & Philip Hallinger (Eds.), *Restructuring Schooling: Learning From Ongoing Efforts.* Corwin Press, Newberry Park, CA.

Slavin, R., Madden, N., Karweit, N., Dolan, L., Wasik, B., Shaw, A., **Mainzer, K.L.H.**, Haxby, B. (1991). Neverstreaming: Prevention and early intervention as an alternative to special education. *Journal of LearningDisabilities*, 24 (6), 373-378.

Slavin, R., Madden, N., Karweit, N., Dolan, L., Wasik, B., Shaw, A., **Mainzer, K.L.H.**, Petza, R., Bond, M., & Haxby, B. (1992). *Success for all: A relentless approach to prevention and early intervention in elementaryschools.* Educational Research Service, Arlington, VA.

Mainzer, K.L.H., Baltzley, P.C., Heslin, K. (1990). Everybody can be great because everybody can serve. *Educational Leadership*, 48 (3), 94-97.

CLASSROOM INSTRUCTION

Supervision and Professional Development (852.602): Fall 2002

Doctoral Seminar in Assistive Instructional and Administrative Application of Technology (892.650), Summer 2002, JHU

Collaborative Research and Inquiry Using Technology (893.572): 1997 to 1999, JHU

Restructuring Special Education with Technology (890.507): 1995, JHU

Systemic Change Process for School Improvement (851.708): 1994, JHU

The Cooperative Collaborative Process: 1990 to 1993, Dallastown School District, Dallastown, Pennsylvania

Methods of Teaching Learning Disabilities (W-SPE321): 1993, College of Notre Dame, Baltimore, MD

Cooperative Learning Across the Curriculum: 1989, Western Maryland College, Westminster, MD

PRESENTATIONS

Mainzer, K.L.H., Lowry, A. E. & Schulthies, L. (2005). Boundless Learning. International Council for Exceptional Children

Mainzer, K.L.H., North, J. (2001). Team Tech Learning: Building a safe learning environment for all students. Lt. Governor's MD School Safety Task Force.

Mainzer, K.L.H., Leaverton, Roberta, & Hershberger, Denise. (2000). TeamTech Learning for Diverse Learners. International Council for Exceptional Children

Mainzer, K.L.H. & Lowry, A. E. (1998) TeamTech Learning. Presentation for the JHU CTE Summer Institute for TeamTech Learning, Baltimore, MD.

Mainzer, K.L.H., Mainzer, R.W., Lowry, A. E. (1997) TeamView: An intervention to assist students with learning disabilities in general education classes. Presentation for the Pennsylvania Council for Exceptional Children, Hershey, PA.

Mainzer, K.L.H., Heiberger, D., Skeebeck, P. (1997) TeamTech for Success. Presentation to EASOM Conference, Baltimore, MD.

Mainzer, K.L.H. (1997) Computers, collaboration, and change: Using technology to foster school reform. Presentation for the JHU CTE Weekend Seminar Series, Baltimore, MD.

Mainzer, K.L.H. & Packer, A. (1995) Multimedia math focus group. Facilitated electronic meeting for the JHU Institute of Policy Studies, Baltimore, MD.

Mainzer, K.L.H. (1994) Using groupware and decision-support technology to promote school reform. Presentation to CEASOM Conference, Baltimore, MD.

Mainzer, K.L.H. (1994) Cooperative learning: Structuring the class for success. Seminar Series presented at the American Professional Partnership in Lithuanian Education Conference, Vilnius, Lithuania.

John D. Castellani, Ph.D.

EDUCATION

1999 Ph.D., Education, George Mason University, Fairfax, Virginia.
1991 M.Ed., Special Education, Kent State University, Kent, Ohio.
1990 B.A., Psychology, Kent State University, Kent, Ohio.

PROFESSIONAL CERTIFICATION

- Certification for Teaching Students with Multiple/Orthopedic Handicaps – Ohio State Department of Education
- K-12 Severe Disabilities – Virginia State Department of Education
- Certification for Teaching Students with Mild Mental Retardation –Virginia State Department of Education

PROFESSIONAL EXPERIENCE

2000-Present Associate Professor
School of Professional Studies in Business and Education
Graduate Division of Education
Johns Hopkins University
Baltimore, Maryland

Co-coordinate the administration and development of the Technology for Educators master's program and three different master's certificate programs, teach master's and doctoral level courses, and advise master's and doctoral students. Serve as program director for the Maryland State Department of Education partnership grant in the Center for Technology in Education.

1998-2000 Administrative Faculty
School of Education
George Mason University
Fairfax, Virginia

1997 Education Program Specialist
Office of Educational Technology
U.S. Department of Education
Washington, District of Columbia

1996-1998 Graduate Research Assistant
School of Education
George Mason University
Fairfax, Virginia

1996-1997 Assistive Special Education Technology Coordinator,
Integrated Technology Services
Fairfax County Public Schools
Fairfax, Virginia

1994-1996 Teacher for Students with Mild Retardation
Thomas A. Edison High School
Fairfax County Public Schools
Fairfax, Virginia

1993-1994 Individual Program Plan Coordinator Consultant
The Art and Drama Therapy Institute
Washington, District of Columbia

1992-1993 Program Director
PSI, Associates
Washington, District of Columbia

1990-1991 Transition Coordinator
Kent State University
Kent, Ohio

1988-1990 Mental Health Specialist
Kevin Coleman Mental Health Institute
Ravenna, Ohio

PUBLICATIONS

Peer Reviewed Professional Journal Articles

Castellani, B., Castellani, J., & Spray, L. (2004). Grounded neural networking: A new tool for studying social complexity. *Symbolic Interaction*, *27*(4), 585-601.

Castellani, B. & Castellani, J. (2003). Data mining: Qualitative analysis with health informatics data. *Journal of Health Informatics Research, 13*(7), 1005-1018.

Castellani, J.D., & Tsantis, L. (2002). Cross cultural reactions to using computers in the early childhood education classroom. *Contemporary Issues in Early Childhood Education, 2*(3), 274-288.

Tsantis, L., & Castellani, J.D. (2001). Enhancing learning environments through solution based data mining tools: Forecasting for self-perpetuating systemic reform. *Journal of Special Education Technology, 16*(4), 39-52.

BOOK CHAPTERS

Tsantis, L., & Castellani, J.D. (in press). Technology in early childhood special education. In J.M. Taylor, J. McGowan, & T. Linder (Eds.), *Leadership in early childhood special education*. Baltimore, MD: Paul H. Brookes Publishing.

Castellani, J.D., & Castellani, B.C. (in press). Data mining process and analysis

strategies for special education technology decision-making. In D. Edyburn, K. Higgins, & R. Boone (Eds.), *Handbook of Special Education Technology*. Milwaukee, WI: Knowledge by Design, Inc.

Castellani, J.D., & Behrmann, M.M. (2001). An exploration of systems thinking, teacher choice, and requirements for implementing technology into classrooms for students with emotional and learning disabilities. In M. Mastropieri, & T. Scruggs (Eds.), *Advances in Learning and Behavioral Disabilities: Technology and Special Education,* 15, pp. 201-225. Greenwich, CT: JAI Press.

Mastropieri, M., Jeffs, T, Castellani, J., & Scruggs, T. (2001). An e-mail study of elementary schools students: corresponding between classes. In M. Mastropieri, & T. Scruggs (Eds.), *Advances in Learning and Behavioral Disabilities: Technology and Special Education,* 15, pp. 235-250. Greenwich, CT: JAI Press.

Selected CONFERENCE PROCEEDINGS

Castellani, J.D., Jeffs, T., & Behrmann, M.M. (2000, January). *LiteracyAccess Online: An exploration of technology use among literacy facilitators and middle school children with disabilities.* Paper presented at the National Symposium on Literacy and Disability. Charlotte, North Carolina.

Castellani, J. D. (1999, November). *Teaching and learning with the Internet: Issues for training special education teachers.* Paper presented at the Society for Information Technology and Teacher Education, 1999, Association for the Advancement of Computing in Education, Charlottesville, Virginia.

Selected MONOGRAPHS AND REPORTS

Castellani, J., & Rein, J. (2003). *Assistive technology accommodations for instruction and testing: A review of the literature.* Report. Columbia, MD: Maryland State Department of Education.

Kadel, R., Castellani, J., & Rein, J. (2001). *The state of assistive technology in the state of Maryland.* Report. Columbia, MD: Maryland State Department of Education.

Tsantis, L., & Castellani, J.D. (2000). *Enhancing learning environments through solution based data mining tools: Forecasting for self-perpetuating systemic reform*. Invited Monograph, American Institutes of Research, Washington, DC.

Selected Honors and Professional Activities

July 2004 to June 2005	President, Technology and Media Division of the Council for Exceptional Children

Ann E. Lowry, M.S.
Program Director for Online Learning and Distance Education
Johns Hopkins University Center for Technology in Education

Education

Doctoral Candidate, expected completion 2005, Teacher Development and Leadership, Johns Hopkins University, Baltimore, Maryland

M.S., 1994, Administration and Supervision, Johns Hopkins University, Baltimore, Maryland

B.S., 1987, Special Education, James Madison University, Harrisonburg, Virginia

Professional Experience

1996-Present: Program Director for Online Learning and Distance Education, Johns Hopkins University Center for Technology in Education (CTE), Baltimore, MD

1994-Present: Adjunct Instructor, Johns Hopkins University School of Professional Studies in Business and Education, Division of Education, Baltimore, MD

1995: Supervisor of Student Teachers, Johns Hopkins University School of Professional Studies in Business and Education, Division of Education, Baltimore, MD

1994-1996: Baltimore County Public Schools English Teacher, Special Educator/Eighth Grade Team Leader, Deep Creek Middle School, Essex, MD

1993-1994: Baltimore City Public School System Administrative Intern, Dr. Bernard Harris Sr. Elementary School, Baltimore, MD

1991-1994: Trainer/Facilitator, Success for All Program, Center for the Social Organization of Schools, Johns Hopkins University, Baltimore, MD

1990-1991: Seattle Public Schools Special Education Resource Teacher, Greenwood Elementary School, Seattle, WA

1988-1990: Carroll County Public Schools Special Education Teacher, North Carroll Middle School, Hampstead, MD

Publications

- Nunn, J. A., Lowry, A. E., Peloff, D., & Pierrel, E. (2005). Communities and portfolios: Infusing Web-based tools into teacher preparation programs. In S. R. Rhine & M. Bailey (Eds.), *Transforming Learning through Technology* (pp. 79-92). Eugene, OR: ISTE.
- Mainzer, L.H., Lowry, A.E., Mainzer, R.W., Baltzley, P.C., Nunn, J.A. (1997). *Team Research and Learning*. Baltimore, MD: Johns Hopkins University, Center for Technology in Education.
- Mainzer, L.H., Lowry, A.E., Mainzer, R.W., Nunn, J.A., Baltzley, P.C. (1997). *TeamView: A tool for building high performance teams.* Baltimore, MD: Johns Hopkins University, Center for Technology in Education.
- Mainzer, R.W., Mainzer, L.H., Lowry, A.E., Baltzley, P.A. (1996). *The Cooperative Collaborative Process*. Baltimore, MD: Johns Hopkins University, Center for Technology in Education.
- Mainzer, K.L., Mainzer, R.W., Lowry, A.E., & Slavin, R.E. (1993). What special education teachers should know about cooperative learning. *Teacher Education and Special Education, 16*(1), 42-50.

Inventions

- Electronic Learning Community (ELC): A collaborative, Web-based tool designed for communication and knowledge management for education professionals. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1605, February 2002.
- Electronic Portfolio (EP): A template-driven, standards-based application, designed primarily for the education community, which facilitates the development of content-rich professional portfolios. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1752, July 2002.
- Student Compass: A Web-based application for monitoring student performance in areas such as: state content standards and curriculum, state assessments, Individual Education Plan goals; instructional strategies use, and behavior. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1750, July 2002.
- Teacher Compass: A Web-based application for administrators to use when observing and evaluating teachers. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn 1751, July 2002.
- Project Builder: A Web-based application to help teachers create effective lesson plans and project-based learning units that maximize learning opportunities for all students. Approved for external licensing by JHU Office of Technology Transfer. Reference number Nunn1753, July 2002.

Grants

- Director of Online Learning Initiatives (1998-Present). *MSDE Core Partnership Grant: Ensuring access to educational opportunity, transforming instruction to create more inclusive classrooms, and fostering leadership in educators through the uses of assistive, instructional, and leadership technologies.* Funded by the Maryland State Department of Education.
- Director of Online Learning Initiatives (2000-Present). *STAR Schools Project: Maryland Digital Schools.* Funded by the U.S. Department of Education through Maryland Public Television to support the Maryland Star Schools Consortium in using digital broadcasting and other technologies to help teachers implement innovative teaching strategies to meet new educational standards that stress higher-level thinking skills and project-based collaborative learning.
- Director of Technology Initiatives (1999 to 2004). Title II Teacher Quality Partnership Program: *Project SITE SUPPORT*. Funded by the U.S. Department of Education, Office of Postsecondary Education to recruit, prepare, mentor, and retain 1400 teachers for high-need schools in partnership with the Baltimore City Public School System, four urbanizing Maryland LEAs, the University of Maryland, and Morgan State University.
- Co-Project Director (2001 to 2004). *School Safety Web-based Curriculum for Six Target Audiences.* Funded by the U.S. Department of Justice, Office of Justice Programs to identify essential content and components of a strategic and comprehensive Web-based school safety curriculum for teachers, administrators, parents, students, police, school-based police, and concerned citizens. Provide a Web-based, menu driven environment for delivery of training and community building, and develop and disseminate online courses for each targeted audience member.

- Instructional Design Specialist (1998 to 2004). *Technology Innovation Challenge Grant (TICG) II: Maryland Teaching and Learning with Technology Consortium*. Funded by the U.S. Department of Education, Office of Educational Research and Improvement through Montgomery County Public School System to develop state policy regarding technology competence; create school-based technology leaders; build electronic resource network to train and support large numbers of teachers throughout the state; build technology-rich professional development schools that function as hubs for new teacher preparation and support; provide proven professional development models that schools can adopt; and inform school principals and administrators how to plan, align, and lead school-improvement initiatives that integrate technology.
- Project Director (1999 to 2003). *Preparing Tomorrow's Teachers to Use Technology (PT3) Implementation grant*. Funded by the U.S. Department of Education, Office of Postsecondary Education to overhaul JHU's pre-service teacher education programs to infuse technology into the curriculum, align it with state and national technology and content standards, and ensure that graduates are prepared to learn and teach in technology-rich environments. Activities include modification of course syllabi to embrace technology-related objectives and activities, enhancement of faculty technology skills, enrichment of technology resources for students and faculty, creation of Electronic Learning Communities, adoption of online course technologies, and institution of an Electronic Teaching Portfolio and an electronic case study database.
- Project Director (2002 to 2003). *Web-based Online Evaluation and Reporting System for the Technology Innovation Challenge Grant (TICG) Program*. Funded by the U.S. Department of Education, Office of Educational Research and Improvement to work with the leadership of TICG program, TICG program project directors and evaluators, and staff from the American Institute for Research to develop and implement a national evaluation, data collection and reporting system.
- Director of Professional Development (1998 to 2000). *TICG I: Putting Schools to Work on the Information Highway*. Funded by the U.S. Department of Education, Office of Educational Research and Improvement through Baltimore City Public Schools to deliver a multi-faceted program using electronic case studies and telecommunication tools to transform curricula and assessments and connect Baltimore City high school students with places of work and the community at-large.
- Project Director (1999 – 2000). *TICG Southeast Cluster Project*. Funded by the U.S. Department of Education, Office of Educational Research and Improvement through Montgomery County Public Schools to provide technical assistance to the 15 national TICG projects located in the U.S. Southeast and develop common indicators across projects.

Linda Z. Carling, M.S.
Program Coordinator for Online Learning and Distance Education
Johns Hopkins University Center for Technology in Education

EDUCATION

M.S., 2002, Education/Technology for Educators, Johns Hopkins University, Baltimore, Maryland
B.S., 1999, Elementary Education/Science, University of Maryland, College Park, College Park, MD

PROFESSIONAL EXPERIENCE

Program Coordinator for Online Learning and Distance Education, 2004 to present, Center for Technology in Education (CTE), Graduate Division of Education, School of Professional Studies in Business and Education (SPSBE), Johns Hopkins University (JHU), Columbia, Maryland
Project Manager for Online Learning and Distance Education, 2002 to 2004, CTE, Columbia, Maryland
Adjunct Instructor, 2003 to present, Graduate Division of Education, SPSBE, Baltimore, MD
Independent Consultant, 2001 to 2002, CTE, Columbia, MD
Online Instructor, 2000 to 2002, eSylvan, Baltimore, MD
Curriculum Writer, 2000 to 2001, eSylvan, Baltimore, MD
Montgomery County Public Schools Grade 4 Science and Math Teacher, 1999 to 2000, Strathmore Elementary School, Silver Spring, MD

PROFESSIONAL ACTIVITIES

PROFESSIONAL SERVICE
Special Education Leadership Academy Advisory Board, Johns Hopkins University, 2003 to present

UNIVERSITY SERVICE
Graduate Internship Mentor, JHU, 2002 to present
PROFESSIONAL ASSOCIATIONS
Association for Supervision and Curriculum Development, 2002 to present
Maryland Instructional Computers Coordinators Association, 2001 to present
The Concord Consortium, 2004

PROFESSIONAL LICENSURE
Maryland State Teacher Certification (K-8) 1999

CLASSROOM INSTRUCTION
JOHNS HOPKINS UNIVERSITY
Web-Based Mentoring and Online Interactions (893. 648): Winter, 2003

LECTURES AND PROFESSIONAL PRESENTATIONS

Simard, D., **Carling, L.Z.**, and Carpenter, F. (2004) Fostering Higher Order Thinking Within the Context of an Online learning Community. MICCA, Baltimore, MD.

Carling, L.Z., and Krcma, K. (2004) Setting a Professional Course to Include Online Learning. MICCA, Baltimore, MD.

Lowry, A.E., and **Carling, L.Z.** (2003) Is Online learning Right for You? Tips and Tricks for Being an Effective Online Learner. MICCA, Baltimore, MD.

Deborah T. Carran

EDUCATION

University of Miami	B.S.	1981	Psychology and Biology
University of Miami	M.S.	1984	Psychological Science
University of Miami	Ph.D.	1986	Developmental Psychology

ACADEMIC POSITIONS

1/96-Present	Associate Professor, Johns Hopkins University, School of Professional Studies in Business and Education, Graduate Division of Education.
9/88-12/95	Assistant Professor, Johns Hopkins University, School of Professional Studies in Business and Education, Graduate Division of Education.
9/86-9/88	NIMH Psychiatric Epidemiology Post-Doctoral Fellow, Department of Mental Hygiene, Johns Hopkins University, School of Hygiene and Public Health.

SELECTED PEER REVIEWED PUBLICATIONS

Gardner, J. S., & Carran, D. T. (2005). Attainment of personal outcomes by people with developmental disabilities. *Mental Retardation, 43*(3), 157-174

Carran, D. T., Kerins, M., & Murray, S. (2005). Three year outcomes for positively and negatively discharged students with EBD from non-public special education facilities. *Behavioral Disorders, 30*(2), 119-134.

Carran, D. T., Tsantis, L., Castellani, J. & Baglin, C. A. (2004). Data Mining Electronically Linked Part C-Part B data sets to Identify Usage Patterns and Predict Needs. Conference proceeding from the 6th Annual Athens Institute for Education and Research.

Gardner, J. S. & Carran, D. T. (2001). Measuring quality of life and quality of services through personal outcome measures: Implications for public policy. In L. C. Glidden (Ed.), *International review of research in mental retardation*, Vol. 24 (pp. 75 – 99). San Diego, CA: Academic Press.

Taylor, J. M., Carran, D. T., Baglin, C. A., Von Rembow, D., Fleming, J. A. (2000) Using early intervention demographic data to discern training needs by geographic locale. *Infant-Toddler Intervention, 10*(3), 157-176.

Nemerofsky, A. G. & Carran, D. T. (1998) What-if-situation-test. In C. M. Davis, W. L. Yarber, R. Bauserman, G. Scheer, & S. L. Davis (Eds.), *Handbook of sexually-related measures*. Newbury Park, CA: Sage Publications.

Carran, D. T., Nemerofsky, A. G., Rock, E. E., & Kerins, M. (1996). Risk of unsuccessful program completion for students with serious emotional/behavioral disorders: An epidemiologic risk analysis. *Behavioral Disorders, 21*(2), 172-189

Rock, E. E., Rosenberg, M. S., & Carran, D. T. (1995). Variables affecting the reintegration rate of students with serious emotional disturbance. *Exceptional Children, 61*(3), 254-268.

SELECTED INTERNATIONAL, NATIONAL, REGIONAL, AND STATE PRESENTATIONS

Carran, D. T., Nemerofsky, A. G., & Wons, K. (April, 2005). Using the Odds Ratio to Analyze Program Outcomes. Paper presented at the 28th Annual Conference of the Eastern Evaluation Research Society, Absecon, NJ.

Carran, D. T., & Nemerofsky, A. G. (March, 2005). Three Year Arrest of S/ED Post Secondary Dropouts: Risk Factor Differences for Internalizers and Externalizers. Poster presented at the 38th Annual Gatlinburg Conference, Annapolis, MD.

Carran, D. T., Tsantis, L., Castellani, J. & Baglin, C. A. (May 2004) Data Mining Electronically Linked Part C-Part B data sets to Identify Usage Patterns and Predict Needs. Paper presented at the Athens Institute for Education and Research, Athens, Greece.

King-Sears, M, & Carran, D.T. (May, 2004). Developing a teacher preparation research agenda: Translating practice into research. Paper presented at the Athens Institute for Education and Research, Athens, Greece.

Carran, D. T. (April 2004). Use of Multiple Response SPSS Subroutine to Analyze Multiple Categorical Item Responses at the Individual Level. Paper presented at the Eastern Evaluation Research Society Conference, Galloway, NJ.

Carran, D.T, Kerins, & M, Murray, S. (March, 2001) Discharge Status at Two Years for Post Secondary EB/D Students. Poster presented at the Council for Exceptional Children National Conference, Kansas City, MO.

Carran, D.T, Kerins, M, & Murray, S. (March, 2000) Tracking E/BD Post Secondary Discharges Students: The MANSEF Longitudinal Project. Paper presented at the Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, San Diego, CA.

SELECTED FUNDED GRANTS

Carran, D. Part C-Part B linked data sets: 2 tracking studies. Funded by the Maryland State Department of Education. Principal Investigator. September 1, 2001 – Present.

Taylor, J. & Carran, D. A proposal to determine demographic attributes of the Early Intervention System in Maryland. Funded by the Maryland Infants and Toddlers Program. Co-Principal Investigator. July 1, 1995 - 1997.

Carran, D. Longitudinal study of special education students after discharge from a MANSEF school. Funded by the Johns Hopkins University, School of Continuing Studies. Principal Investigator, January 1995 - present.

SELECTED CONSULTATIONS

Present Data analysis for the Special Master of Baltimore City Evaluation of Inclusion Practices in Baltimore City Public Schools.

1999 – Present Evaluation Consultant for Queen Anne's County Public Schools, Schools for Success/Even Start Program

Hans Aigner
President and CEO, DataLab USA

Upon his arrival from Austria in 1972, Hans worked as Technical Consultant for the George Washington University Computer Center and was engaged by the George Washington University Statistics Department as lecturer until 1975. After leaving the academic environment in 1975, Hans worked as Director of Marketing Research for International Group Plans, a direct marketing organization of third party insurance plans to members of associations.

In 1979, Hans founded Applications Software Company, better known as ASC Database Marketing, where he immediately began concentrating on developing a company that quickly became a leader in, what was at that time, the emerging discipline of database marketing.

In 1999, Hans created ASC's affiliate company DataLab USA and, during the same year, formed The Data Laboratory Ltd in London, England with European partners.

Over the past 25 years, Hans has been at the forefront of production and statistical innovations in database marketing. He has served as an innovative leader in marketing program optimization utilizing innovative simulation techniques and optimization procedures. Hans has a hands-on involvement in the continual advancement of the science of direct marketing at ASC and DataLab USA.

Hans graduated with an MS degree in Applied Mathematics from Johannes Kepler University of Linz, Austria.

Section G. Budget Justification

Maryland Longitudinal Data Systems (MLDS)
BUDGET JUSTIFICATION
CFDA: 84.372

Maryland State Department of Education
Statewide Longitudinal Data Systems
Budget Justification

1. Personnel Costs

MSDE Personnel	FTE/Year	Year 1	Year 2	Year 3
Carol Ann Baglin: MSDE Project Director	(b)(6) ach year	$26,500	$27,295	$28,114
Ned Featherston: Technical Systems Analyst	ach year	$19,000	$19,570	$20,157
Ed Prog Specialist (1st of 3 positions)	each year	$72,000	$74,160	$76,385
Ed Prog Specialist (2nd of 3 positions)	each year	$72,000	$74,160	$76,385
Ed Prog Specialist (3rd of 3 positions)	each year	$72,000	$74,160	$76,384
Sub-Total Salary		**$261,500**	**$269,345**	**$277,425**

In Years 2 and 3 a __3.0__ % cost of living adjustment (COLA) is scheduled.

2. Fringe Benefits and Other Personnel Costs

The MSDE Standard Benefit Rate scheduled for the period covered by this proposal is _25__ %.

	Year 1	Year 2	Year 3
Benefits %	(b)(6)		
Benefits Cost	**$65,375**	**$67,336**	**$69,356**

3. Travel

The National Project Directors Meeting will be held nearby in Washington DC. Therefore, this proposal will require minimal funding of $800 per year ($400 x 2 attendees) to cover the cost for staff representation at those meetings.

4. Equipment

The project will require MSDE to staff 3 new educational program specialist positions. Each position will require a computer estimated at $2,200 each or $6,600. Additionally, project related staff will share a printer with an estimated cost of $400 for a total of $7,000 in equipment costs. The cost will be incurred in Year 1 of the grant.

5. Supplies

Software and training materials will also be required to support the development, management, presentation and professional development initiatives included in this proposal. It is estimated that $5,000 will be required for each year of the project to support MSDE's initiatives in this proposal.

6. Contractual

Contractual needs fall into two categories:

1. In Years 2 and 3, $300,000 will be required to reimburse the four districts staff time to pilot the MLDS conceptual framework, pre-defined and customized reports, analytic models, and professional development at an estimated cost of $75,000 per district (4 x $75,000=$300,000).

2. The Johns Hopkins University Center for Technology in Education (JHUCTE) will be sub-awarded $1,621,590 in Year 1, $1,252,905 in Year 2 and $1,267,092 in Year 3 to manage the project and produce the outcomes as indicated in the application. **A line item budget justification from the Johns Hopkins University Center for Technology in Education is included as part of this budget justification.**

7. Construction

There are no Construction costs associated with this proposal.

8. Other Costs

There are no Other costs associated with this proposal.

10. Indirect Costs

A 10.9% negotiated indirect cost rate has been requested. Equipment purchases and the Johns Hopkins University Center for Technology in Education are not included in the formula that calculates actual indirect costs.

Johns Hopkins University/Center for Technology in Education
Statewide Longitudinal Data Systems
Budget Justification

1. Personnel Costs

Personnel	FTE/Year	Year 1	Year 2	Year 3
Jacqueline Nunn: CTE Project Director	(b)(6) each year	$26,938	$27,611	$28,301
Elaine Urbanski: Program Coordinator	(b)(6) each year	$48,806	$50,026	$51,277
Lynne Mainzer: Knowledge Mgt. Coordinator	(b)(6) each year	$20,313	$20,820	$21,341
John Castellani: Knowledge Mgt. Coordinator	(b)(6) each year	$6,920	$7,093	$7,270
Deborah Carran: JHU Evaluator	(b)(6) each year	$19,038	$19,513	$20,001
Research Assistant (TBD)	100% each year	$44,000	$45,100	$46,228
Bets Lowry: Online Learning Director	(b)(6) % each year	$17,850	$18,296	$18,754
Linda Carling: Online Learning Coordinator	25% each year	$13,838	$14,183	$14,538
Online Learning Manager (TBD)	25%,75%,75%	$12,813	$39,398	$40,383
Requirements/Implementation Mgr (TBD)	100% each year	$51,250	$52,531	$53,845
David Peloff: Technical Team Lead	(b)(6) each year	$17,844	$18,290	$18,747
Technical Team Manager (TBD)	85% each year	$51,000	$52,275	$53,582
Training Assistant (TBD)	50% each year	$19,000	$19,475	$19,962
Sub-Total Salary		**$349,610**	**$384,611**	**$394,229**

In Years 2 and 3 a 2.5% cost of living adjustment (COLA) is scheduled.

2. Fringe Benefits and Other Personnel Costs

The JHU Standard Benefit Rate scheduled for the period covered by this proposal is 33%.

	Year 1	Year 2	Year 3
Benefits %	33%	33%	33%
Benefits Cost	**$115,371**	**$126,922**	**$130,096**

3. Travel

Travel related expenses will total $9,300 in each of the project years. The travel related expenses are broken into two categories; In-state staff travel and National Conference Dissemination travel.

The in-state travel is to allow CTE/JHU staff to travel to MSDE/Focus group sites and implementation districts. It is estimated that each staff trip will average $100 including mileage at $.405 per mile, parking, tolls and accommodations. It is estimated that 4 staff trips will occur each month (4 trips x 12 months x 100 per trip) for a total of $4,800 per year for in-state travel.

As the National Project Directors Meeting will be held nearby in Washington DC each year, these local funds will also cover the cost for staff representation at those meetings.

National Conference Dissemination: In each year of the proposal we have budgeted $4,500 to attend a national conference(s) to disseminate the findings of this project. It is estimated that on average a conference can be attended for $1,500 including airline tickets, lodging, accommodations and transportation. The proposed budget would allow for three conference attendees per year.

4. Equipment

The project will require a significant amount of off-site implementation and presentation. In each year of the grant we have budgeted $4,800 to allow for the purchase of a laptop computer and/or projection device for CTE/JHU staff use in the field.

5. Supplies

Professional development materials will be required to support the implementation of the project. It is estimated that $400 per month (or $4,800 per year for each year of the proposal) in print materials, copies, and training supplies will be required to support the project.

Software will also be required to support the presentation and professional development initiatives included in this proposal. It is estimated that $2,400 ($200 per month) will be required for each year of the project to support JHU/CTE personnel.

6. Contractual

Contractual needs will total $974,000 in Year 1, $595,000 in Year 2 and $595,000 in Year 3. These contractual needs fall into three categories:

1. D (b)(4)
It is r day); a
Proj
Prog the
prop of Years 2
and

2. Application Development for Online Learning Manager (b)(4) rt
design and delivery of statewide professional developmen in Years
2 and 3.

It is estimated that (b)(4) Year 1 and (b)(4) Years 2 and 3 will be required from an Application Development team to support the Online Learning Management System requirements included in this proposal at a rate of $ (b)(4)

3. Expert Educators and Technical Consultants: $60,000 Year 1, $80,000 Year 2, $80,000 Year 3.

The assistance of select expert educators and technical consultants will be required to assist in the design and implementation of the project and to insure that the end results meet contractual, State and federal guidelines and incorporate established best practices from other states. It is estimated that these expert consultants will average a rate of $1,000 per day. It is estimated that 60 days will be required in Year 1, 80 days in Year 2 and 80 days in Year 3.

7. Construction

There are no Construction costs associated with this proposal.

8. Other Costs

It is estimated that $200 per month ($2,400 per year) will be required to provide accommodations during focus group sessions, professional development events and/or implementation training at JHU, MSDE or district locations..

10. Indirect Costs

This proposal is being submitted to the Maryland State Department of Education with a 10.9% Indirect Cost Rate which is the same rate that MSDE will be using on their federal application.

Section H Appendix A: Timeline

The MLDS solution will be developed and implemented over three years using a phased methodology. Within each year or 12 months of the project, very specific objectives, activities, tasks, deliverables and outcomes will be planned for, monitored and achieved. Evaluation against annual objectives will take place each year.

The data architecture, data model and data dictionary for the MLDS data warehouse will be designed up front to house all of the State's data and to address the requirements of all of the stakeholders. The data warehouse will be populated with all of the data and a unique student identifier will be added to allow for early use of MLDS for data-driven decision-making and longitudinal research pilots and usage. Given the State has successfully linked several of the special education data collection silos (Part B and Part C) and has developed (IFSP and IEP) or is in the process of developing (SSIS) web-based special education applications, the initial focus of MLDS will be on special education data and research needs to build on the work completed to date. In addition, 58% of Maryland schools have failed to meet Adequate Yearly Progress due to lack of progress by their students with disabilities. It is imperative that data become available in the near term to support data-driven decision-making and research focusing on Special Education and resulting in the recommendation of educational strategies for this population. Therefore, the initial research pilots and professional development will focus on the subgroup with the greatest need, students receiving special education services.

Year 1 will focus on establishing the project office and project planning, capturing overall solution requirements including research and decision-making needs of all stakeholders, revalidating the catalog of current data collections, design and development of the data architecture, data model and data dictionary for MLDS, developing the unique student ID and assignment process via electronic matching of files, populating the MLDS with data from all of the data collections, data retrieval for data-driven decision-making and longitudinal research with a focus on Special Education research, and related professional development. Annual/Formative evaluation of Year 1 will take place at its conclusion. Products produced in Year 1 will be shared with partner states.

Year 2 will be a continuation of the work effort started in Year 1, and focus on implementing and evaluating the research, professional development and MLDS functionality developed and piloted in Year 1. Retrieval and reporting functionality will be developed for special and general education users. Testing and piloting of MLDS functionality through LSS and MSDE pilots will take place along with conducting specific research pilots identified by the stakeholder community. Professional development and further implementation of MLDS will take place at MSDE and LSS partners. Annual/Formative evaluation of Year 2 will take place at its conclusion. Products produced in Year 2 will be shared with partner states.

Year 3 will focus on extending the MLDS special education and general education functionality based on feedback from the stakeholders and users group, and implementing MLDS in additional LSS's throughout the State, and interfacing MLDS with business intelligence and data mining tools. Additional research pilots will take place in Year 3 as well as planning for ongoing operation and sustainability of MLDS, extending its use state-wide and implementing recommended educational strategies determined by analysis of research results. In addition, data

sharing with other State agencies will take place. Products produced in Year 3 will be shared nationally through a Federal cooperative agreement. Annual/Formative evaluation of Year 3 will take place at its conclusion.

The project phases are:

- Planning – for overall project and each project year; includes project office start-up, project team orientation and stakeholder advisory committee selection.
- Requirements – definition for data, software, research, professional development (PD) and ELC needs; includes facilitated stakeholder meetings, development and approval of Requirements document, development and approval of test plan, and establishment of evaluation criteria.
- Solution Design and Prototype – for data architecture and data model, security model, online error correction modules, user access and use modules, professional development modules, and research pilots.
- Development – of data dictionary, MLDS software components, populating data warehouse and assigning unique student IDs, professional development, and research.
- Pilot and User Testing – of MLDS functionality, professional development, and research at MSDE and LSS partner pilot sites.
- Implementation – of MLDS functionality, professional development and research at MSDE and partner (expanded from pilot sites) sites.
- Evaluation –of project based on evaluation criteria and feedback from Users Group and stakeholders

The chart below shows the project phases and work focus by year.

Project Phases by Year							
	Planning	Requirements	Solution Design and Prototype	Development	Pilot and User Testing	Implementation	Evaluation
Year 1	Build and Populate MLDS (unique Student ID), Data-Driven Decision-Making and Longitudinal Research, Special Education Focused Professional Development and Pilots [==========➔						
Year 2	Special Education PD/Rollout [==========➔ Special and General Education Retrieval Functionality, Research Pilots, PD, and Rollout [==========➔						
Year 3	MLDS Enhancements and Tool Interfaces, Additional Research Pilots, Expanded Implementations, Sustainability and Statewide Implementation Planning [==========➔						

The chart below shows the project goals and objectives by month for Year 1 and by year for Years 2, 3 and beyond.

Goals and Objectives	Year 1												Year 2	Year 3	Post Project
	1	2	3	4	5	6	7	8	9	10	11	12	13-24	25-36	
PLANNING & PROJECT MANAGEMENT															
Goal 1: Analyze Business	X	X	X	X	X	X									
Objective 1.1 Establish Stakeholder Advisory Committee		X													
Objective 1.2 Establish sub-committees of Stakeholder Advisory Committee		X													
Objective 1.3 Conduct Stakeholder intelligence			X	X	X	X									
Goal 2: Catalog current and planned local data collection methods and data structures		X													
Goal 3: Design the Maryland Longitudinal Data System (MLDS) architecture			X	X	X										
Objective 3.1 Identify research and decision-making needs of key stakeholders				X											
Objective 3.2 Develop a robust quality assurance system				X	X										
Objective 3.3 Create the logical and physical relationships between data systems				X	X										
Objective 3.4 Implement confidentiality processes in compliance with FERPA				X											
Objective 3.5 Develop a structure to enable researchers and decision-makers to mine the data for time-based analysis				X	X										
Objective 3.6 Design the system architecture using methodologies so that it can be modified and expanded over time				X											
Goal 4: Create, assign, and track a unique, permanent student identifier at the state level and among the states			X	X									X		
Objective 4.1 Create a unique, permanent student identifier system at the state level			X	X											

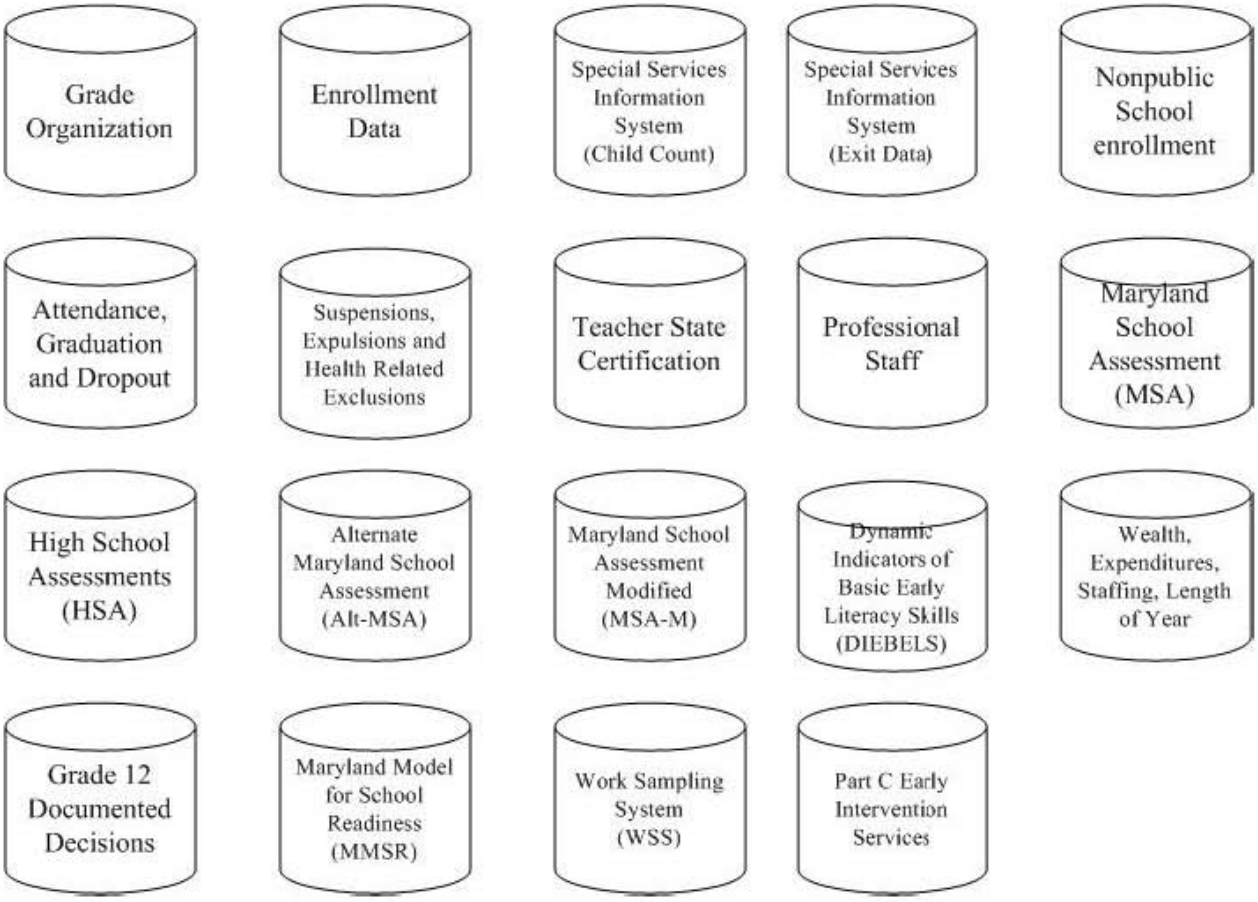
Goals and Objectives	Year 1												Year 2	Year 3	Post Project
	1	2	3	4	5	6	7	8	9	10	11	12	13-24	25-36	
Objective 4.2 Design a unique student identifier system to support research and program evaluation			X	X											
Objective 4.3 Test feasibility of transferring student records among states													X		
Goal 5: Plan and implement statewide data collection systems															
Objective 5.1 Develop a data collection system that is logistically and economically feasible for all local school systems in Maryland		→	→	→	→	→	→	→	→	→	→	→	→	→	
Objective 5.2 Conduct cost/benefit and sustainability analysis		X	X												
Objective 5.3 Evaluate the reporting methodology for Work Sampling (WSS) Assessment System for young children		X	X												
Goal 6: Develop and implement statewide longitudinal data system		→	→	→	→	→	→	→	→	→	→	→	→	→	
Objective 6.1 Develop Maryland's longitudinal data system in accordance with the designed architecture described under Goal 3		→	→	→	→	→	→	→	→	→	→	→	→	→	
Objective 6.2 Test MLDS						X	X	X					X	X	
Objective 6.3 Implement MLDS											X	X	X	X	
Goal 7: Designing, using, and maintaining business intelligence tools (analytical and reporting)		→	→	→	→	→	→	→	→	→	→	→	→	→	
Objective 7.1 Design predefined reports to streamline the capability to report to local, State, and federal agencies													X	X	
Objective 7.2 Design timely reports and analyze needs of different stakeholders and design protocols for high-level longitudinal analyses required for data-driven decision-making by policymakers, educators, and members of the public	→	→	→	→	→	→	→	→	→	→	→	→	→	→	
Objective 7.3 Provide timely, accurate, and user-friendly												→	→	→	

Goals and Objectives	Year 1												Year 2	Year 3	Post Project
	1	2	3	4	5	6	7	8	9	10	11	12	13-24	25-36	
dissemination of the needed data, reports, and analyses results to various stakeholders															
Objective 7.4 Conduct longitudinal education research to inform policy and decision-making at the State, district, school, and class levels in order to improve student achievement										X	X	X	X	X	
Objective 7.5 Design, deliver, support, and evaluate a variety of professional development offerings for differing audiences (teachers, school-based leaders, district and state administrators) on the use of innovative analytical tools and reports to inform their policy and decision-making abilities						X	X	X	X	X			X	X	
Goal 8: Establish logistical capacity to create and maintain a statewide longitudinal data system														→	→
Objective 8.1 Develop efficient administrative processes, infrastructure components, and policy commitments for effectively implementing the maintenance of statewide longitudinal data systems														→	→
Objective 8.2 Assure sustainability and effectiveness of the system														→	→
EVALUATION	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

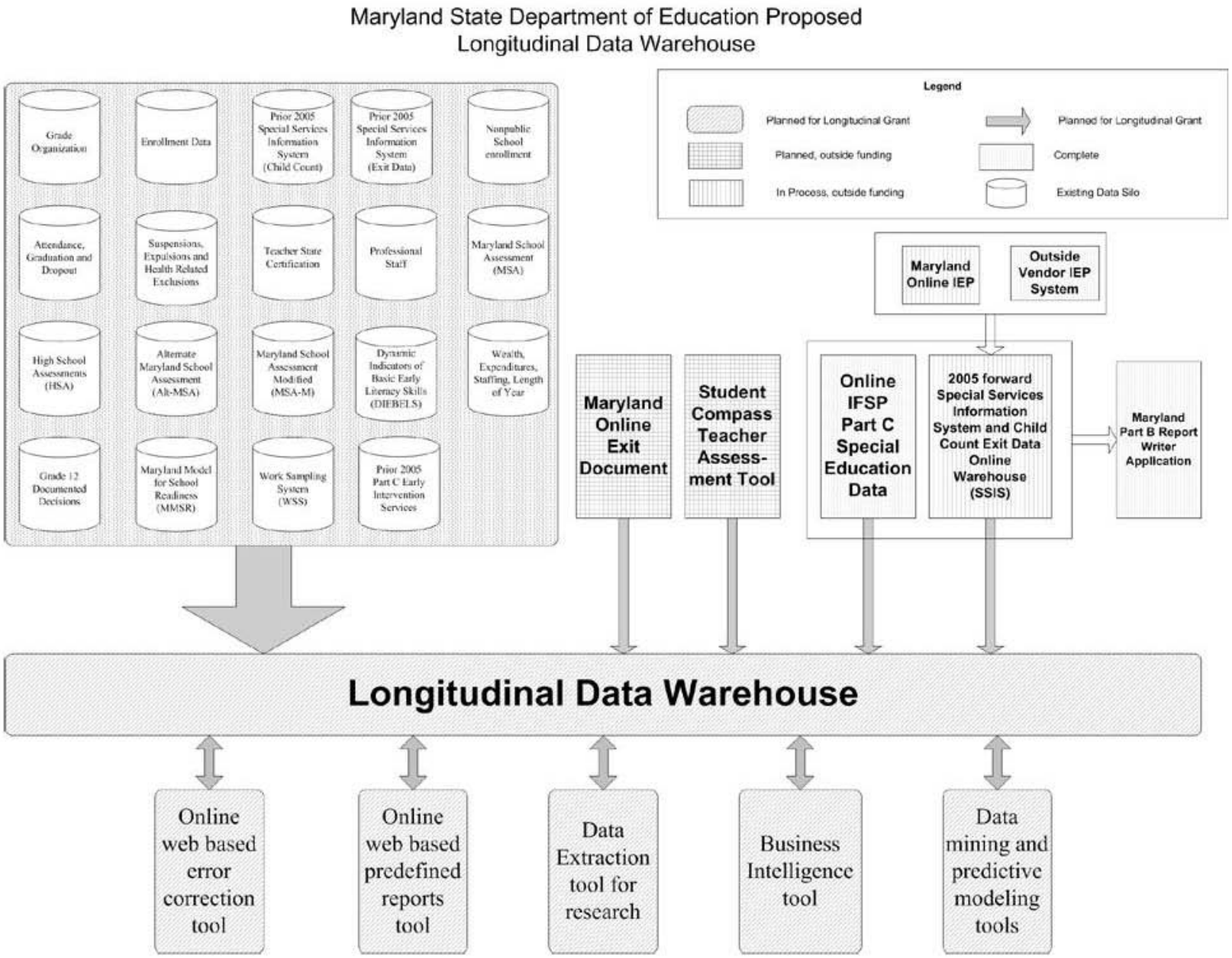
Section I. Appendix B: Current MSDE Data Systems

Maryland State Department of Education
Current Data Collections

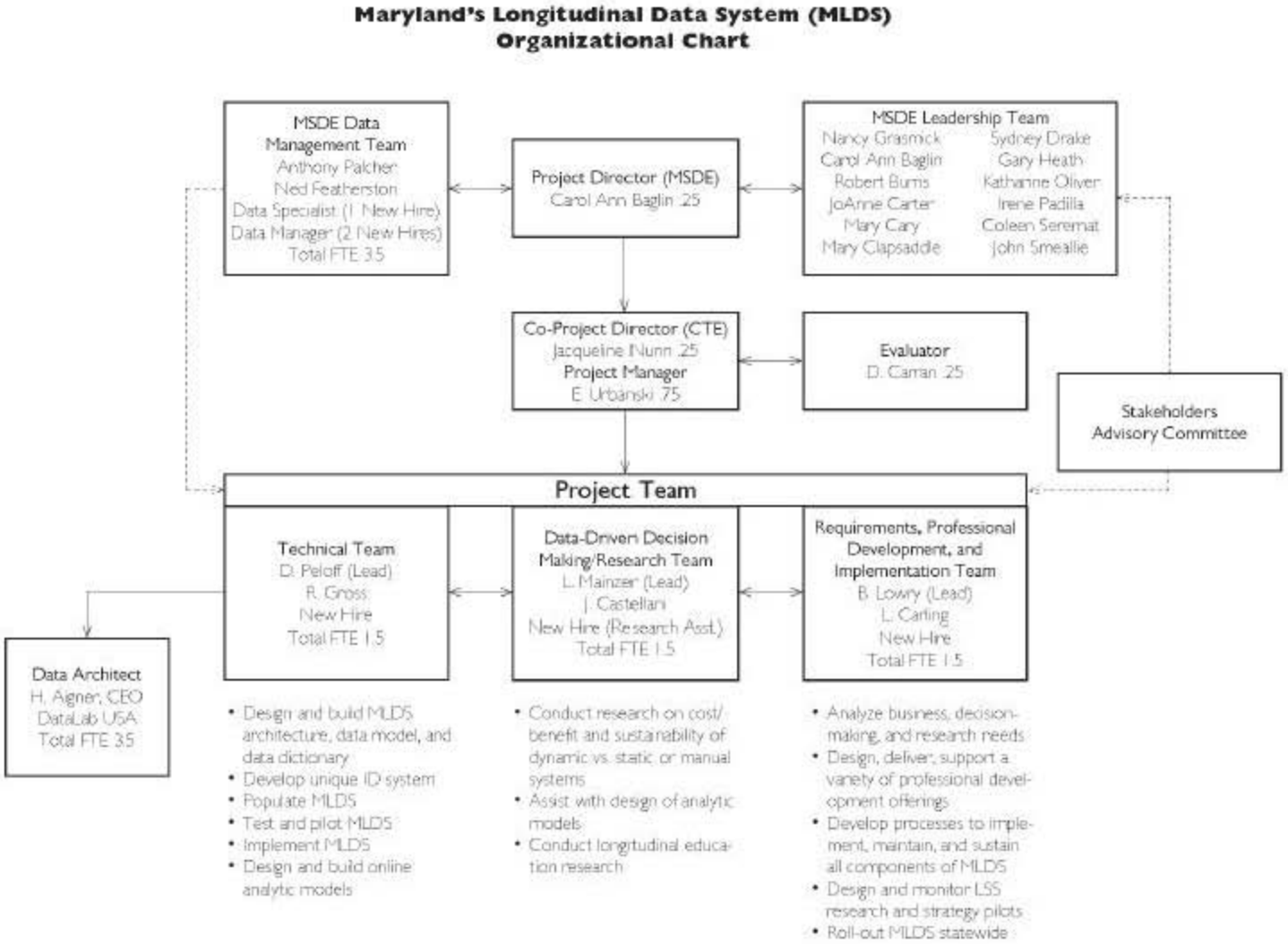
Each of the data files below are available as stand-alone tables for the year the data was collected



Section I. Appendix B: MLDS Proposed Data Architecture



Section I. Appendix B: Functional Project Organization Chart



Section I. Appendix B - Study on the Usefulness and Accuracy of a Unique Student Identifier based on the Maryland Public School Enrollment Data Collection – Dated March 2005 (Full Study available upon request)

I. Executive Summary

A. Overview

Tracking student assessment over time at the State level is currently a difficult, time consuming and therefore costly task as local jurisdictions are not using a state wide unique identifier for a student.

Previous attempts at matching assessment data to the SSIS database achieves for some local jurisdiction matching rates as low as 19% .

A low cost solution to that issue is to develop a cross reference table encompassing all local jurisdictions using the existing data stream of the Maryland Public School Enrollment Data Collection. Currently, that data is transmitted once a year and with that data a very high match rate can be achieved. To extend that match rate to 100% the streaming of data needs to occur more frequently than once a year.

This study was undertaken to identify the rate and accuracy of matching that can be achieved with the cross reference table design based on the Maryland Public School Enrollment Data Collection.

B. Matching Assessment Data

The following assessment data was matched to the 2004 enrollment roster (869,113 students):

2004 MSA Math (403,764 records)
2004 MSA Reading (469,714 records)
2004 HSA Algebra/Data Analysis (72,986 records)
2004 HSA Biology (60,666 records)
2004 HSA English 10 (68,719 records)
2004 HSA Geography (61,582 records)
2004 HSA Government (65,689 records)

Ninety-Six out of 100 assessment records were matched to the enrollment roster with 100% accuracy for all common data variables. The data used for matching consisted of Last Name, First Name, Date of Birth, School ID and local Student ID. A detailed description of methodology, accuracy and detailed match statistics can be found in the Methodology and Report section of this study

C. Matching Part B data

The 2003, Part B (113,879 records) data was matched to the 2004 enrollment roster (869,113 students).

Nine out of 10 Part B records were matched to the enrollment roster with 100% accuracy for all common data variables. Since the two data points are one year apart, the match is less successful than for the assessment data.

This match rate will improve when data for the same school year is matched. Also, the 2003 SSIS data collection contains only SSN, Date of Birth, School Id and local Student Id. The 2005 data collection will contain the name as well, which will allow for the same match rates as for the assessment data.

D. Major finding of the study

This study identified for the investigators a remarkable fact about the data, namely the uniqueness of the last name, first name and birth date. After extensive cleaning of last and first name there are only 545 name and birth date combinations which occur more frequently than once, i.e. of the 869,113 students enrolled in 2004 only 1,090 students are not unique in their name and birth date combination.

The assessment and enrollment data already contains the name and birth date. The SSIS data will contain the name with the 2005 data collection. Prior SSIS data collections contain only SSN, Date of Birth, School ID and local Student ID.

E. Conclusion

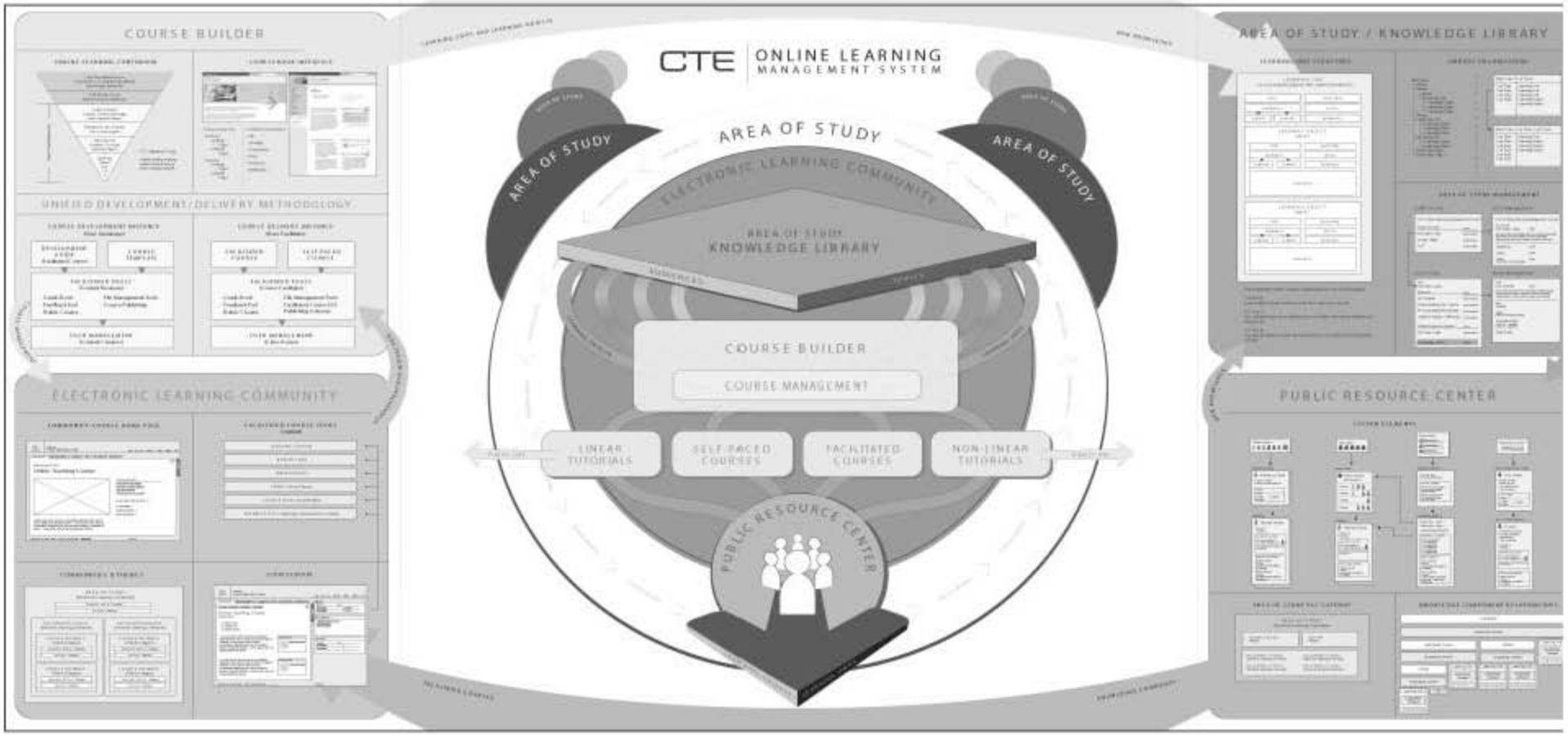
The data collected through the Maryland Public School Enrollment Data Collection allowed for a high percentage of matching even though the data is only based on one point in time and the point in time is not the same.

More frequent collection of Maryland Public School Enrollment Data Collection from the local jurisdictions will allow the building of a cross referenced table, which allows tracking of movements of students between jurisdictions or the exit of students from a public school in the State of Maryland.

Based on the study presented here, it is the conclusion of the investigators that the concept of a frequently updated cross reference table will allow for creation of a unique student identifier that allows the matching of assessment data, Part B data and other purposes for which a unique student identifier is required.

Also, as this study shows, a longitudinal database of assessment data can be built using enrollment rosters and assessment data from prior years. This database can then be used to overlay a multi-year Part B database with assessment scores. The end result is a data mart that will provide the data in one place for studying the effect of Part B services on assessment scores.

Section I: Appendix B OLMS



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Section I. Appendix B: Electronic Learning Community (ELC)

To foster connections and provide cohesiveness for professional communities, the Johns Hopkins University Center for Technology in Education (JHU CTE) has developed a Web-based tool, called an Electronic Learning Community (ELC). The ELC is a password-protected environment that promotes ongoing collaborative exchange and provides convenient channels for synchronous and asynchronous communication.

Developed in 2000, the ELC technology was designed to further CTE's mission of improving the quality of life for all children and youth through teaching, research, and leadership in the uses of technology. CTE now supports over 50 ELCs for more than 10,000 members. All the ELCs support initiatives that fundamentally change the way educators are recruited, prepared, inducted, and mentored within the complex environment of today's schools.

Each community has one or more facilitators who provide professional development leadership and create a secure, caring environment that promotes active engagement, cohesiveness, and a sense of belonging for members. Facilitators model uses, interactions, and pedagogical applications within the context of the online learning community. Facilitators are supported through CTE's wrap-around services.

Pre-service and in-service educators use the ELC to exchange ideas, information, and resources through email, threaded discussions, archives of materials, and a centralized, interactive calendar. The ELC serves as a rich repository of resources for community members. Participants can post, store, retrieve, and share files containing relevant content submitted by other community members. Within the ELC, synchronous communication offers educators who are physically distant a place to gather to make immediate decisions, exchange information, or seek advice. The asynchronous features allow members a forum for timely sharing of successes as well as a vehicle for "just in time, just for me" solutions.

In addition to the conceptual framework, CTE has developed the ENHANCE process for developing an online learning community. The ENHANCE process includes: establishing clear objectives for the ELC; negotiating a strategic plan; handling implementation processes; activating the strategic plan; noting the opportunities for optimizing the online community; checking the community efficacy; and re-examining and reflecting upon the community development process. The ENHANCE process incorporates lessons learned and proven research-based modules.

This initiative requires educators to adapt to a new work style. Therefore, it is critical for CTE staff and key stakeholders from the proposed community to communicate to establish a clear objectives for the online learning environment. Ultimately, this process creates foundational framework of understanding of how the ELC tool functions and of its capacity to augment and deliver professional development.

Section I. Appendix B: LSS Commitment Letters

TALBOT COUNTY
Public Schools

Karen B. Salmon, Ph.D.
Superintendent of Schools

P.O. Box 1029
Easton, Maryland 21601-1029
Phone: (410) 822-0330
Fax: (410) 820-4260
www.tcps.k12.md.us

Steven P. Harris, DVM
President, Board of Education
Charles E. Carroll, Jr.
Vice President, Board of Education

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

Talbot County Public Schools is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will be part of Maryland tradition of close partnership and collaboration with local school systems. This data system will enhance our data driven decision making for instruction and program planning.

We look forward to sharing ideas in a collaborative effort to support Maryland's work toward tracking student data longitudinally and share and exchange data. We recognize the value of examining longitudinal data trends and understanding the intercorrelation of factors that impact our students' achievement and its potential for positive impact on our progrms and practices.

TCPS extends our best wishes for the success of this grant application. We hope this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

Caroll R. Visintainer, Ed.D.
Asst. Superintendent for Instruction

ACCREDITED K-12 BY THE MIDDLE STATES ASSOCIATION OF COLLEGES AND SCHOOLS

Jo Ann D. Aspasiqua
L. Michael Cottingham

Maryann M. Judy
Donna M. Matthews

C. Allen Whitney
Christina L. Jowers

45 East Gordon Street
Bel Air, Maryland 21014-2988
410-838-7300
FAX 410-693-2478

Harford County Public Schools

Jacqueline C. Haas
Superintendent of Schools

June 28, 2005

Dr. Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

The Harford County Public School System is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

We are prepared to provide staff time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, we hope to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

The Harford County Public School System extends our best wishes for the success of this grant application. We look forward to working closely with the grant participants and are certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

Jacqueline C. Haas
Superintendent of Schools

JCH/nw

06/28/2005 08:33 4106384051 PAGE 02

Department of Special Education
And Pupil Services
Sheree Witt, Executive Director

Allegany County Board of Education
108 Washington Street
Cumberland, Maryland 21502
Phone: 301-759-2064
Fax: 301-759-2081

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

Allegany County Public Schools is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

We are prepared to provide staff time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, we hope to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

LSS extends our best wishes for the success of this grant application. We look forward to working closely with the grant participants and are certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

Sheree Witt

Sheree Witt
Executive Director
Special Education and Pupil Services

Caroline County Public Schools

204 Franklin Street
Denton, Maryland 21629

EDWARD W. SHIRLEY, Ed.D.
SUPERINTENDENT OF SCHOOLS

TELEPHONE: 410-479-1460
FAX: 410-479-0108
HOME PAGE: ccps.k12.md.us

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

Caroline County Public Schools is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

We are prepared to provide staff time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, we hope to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

Caroline County Public Schools extends our best wishes for the success of this grant application. We look forward to working closely with the grant participants and are certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

James R. Burd

James R. Burd
Supervisor Of Student Information Services
Caroline County Public Schools
204 Franklin Street
Denton, MD 21629

– PARTNERSHIPS FOR EXCELLENCE –

Baltimore City Public School System
Division of Curriculum and Instruction
Office of English to Speakers of Other Languages
200 East North Avenue, Room 308
Baltimore, Maryland 21202
Phone: 410.396.-6544 Fax 410.783-0744

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

The English to Speakers of Other Languages Program of the Baltimore City Public Schools System is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This partnership among MSDE and other local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system will be useful for gathering information on children learning English as a new language. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

I am prepared to provide time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, I hope to share experiences with other members interested in the various subgroups defined by No Child Left Behind in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

I look forward to working closely with the grant participants. This proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to all children, including English Language Learners.

Sincerely,

Jill Basye
ESOL Specialist

Queen Anne's County
Public Schools
Educate Encourage Enable
202 Chesterfield Avenue ~ Centreville, MD 21617 ~ Tele: 410-758-2403 ~ Fax: 410-758-6200 ~ www.qacps.k12.md.us

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

Queen Anne's County Public Schools is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

We are prepared to provide staff time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, we hope to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

Queen Anne's County Public Schools extends our best wishes for the success of this grant application. We look forward to working closely with the grant participants and are certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

David H. Rose

David H. Rose, MS
Assistive Technology Specialist

"Building a Foundation for Lifelong Learning"

CECIL COUNTY PUBLIC SCHOOLS
Department of Special Education
201 Booth Street • Elkton, MD 21921
410-996-5450 • FAX 410-996-5454 • www.ccps.org

Carl D. Roberts, Ed.D.
Superintendent

Anthony L. Wong
President, Board of Education

June 27, 2005

Dr. Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

Cecil County Public Schools is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

We are prepared to provide staff time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, we hope to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

LSS extends our best wishes for the success of this grant application. We look forward to working closely with the grant participants and are certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

Richard A. Wilkinson

Richard A. Wilkinson
Child Find Coordinator

Our Mission: to provide an excellent Pre-Kindergarten through graduation learning experience that enables ALL students to demonstrate the skills, knowledge and attitude required for lifelong learning and productive citizenship in an ever-changing, global society

Section I. Appendix B: Other State Letters of Support

DISTRICT OF COLUMBIA
PUBLIC SCHOOLS

Office of Special Education
825 North Capitol Street, N.E., 6th Floor
Washington, D.C. 20002-4232
202-442-4800, fax: 202-442-5518
www.k12.dc.us

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

The District of Columbia Public Schools is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

We are prepared to provide staff time and expertise to support Maryland's effort toward tracking student data longitudinally and share and exchange data. As we plan collaboratively, we hope to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of this collaborative partnership will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

The District of Columbia Public Schools extends our best wishes for the success of this grant application. We look forward to working closely with the grant participants and are certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

Alan Patterson
Manager – Information Technology
Office of Special Education and Student Services

Children First

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF EDUCATION
P.O. BOX 2120
RICHMOND, VIRGINIA 23218-2120

June 27, 2005

Nancy S. Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Dear Dr. Grasmick:

The Virginia Department of Education is pleased to support the Maryland State Department of Education (MSDE) application to the Institute of Education Services for a Statewide Longitudinal Data System Grant. This Grant will afford MSDE and the State of Maryland the opportunity to establish partnerships among states and local school systems to gather and analyze accurate and comprehensive data to be included in a statewide longitudinal data system. This data system will be the foundation for data driven decision making for instruction, programming, and funding.

Staff members from Virginia's Department of Education are prepared to participate in meetings with MSDE's stakeholder team to support Maryland's effort toward tracking student data longitudinally and share and exchange data. Through this stakeholder activity, we hope to be able to share experiences with Maryland and other states in the utilization of data to support instruction and student achievement. The establishment of collaborative partnerships will serve to link together state initiatives currently being implemented, support the development of high quality data management systems, and develop a venue for data sharing and support.

Virginia's Department of Education extends our best wishes for the success of this grant application. We look forward to working with the stakeholder team and feel certain that this proposal will benefit the students, teachers, administrators, and State Departments of Education in their efforts to improve services to children.

Sincerely,

Paul Raskopf

Paul J. Raskopf, Director
Office of Financial and Data Services
Division of Special Education and Student Services

Section I. Appendix B: Johns Hopkins University

JOHNS HOPKINS
UNIVERSITY

School of Professional Studies in Business and Education
6740 Alexander Bell Drive
Columbia MD 21046-2100

Graduate Division of Education

June 30, 2005

Dr. Nancy Grasmick
State Superintendent of Schools
Maryland State Department of Education
200 W. Baltimore Street
Baltimore, MD 21201-2592

Dear Dr. Grasmick: Nancy

The Johns Hopkins University Center for Technology in Education (CTE), a partnership of Maryland State Department of Education (MSDE), is pleased to be a partner in the Grant Program application submitted by MSDE to the U.S. Department of Education, Institute of Education Sciences Statewide Longitudinal Data Systems Grant CFDA Number 84.372. The overarching goal of the project is to develop and implement a statewide accountability system for reporting timely and meaningful data to the Federal Government to meet the requirements of NCLB Act. MSDE and CTE are committed to developing a system that will meet the program requirements of a system that will efficiently and accurately manage, analyze, disaggregate, and use individual student data, consistent with the Elementary and Secondary Education Act of 1965. This program will meet the needs of generating timely and accurate data to support decision making at the State, district, school, and classroom levels.

CTE will be responsible for the overall management of the project to ensure that all goals, objectives, and deliverables of the project are on time and within budget. CTE will translate the content decisions into technical design specifications for the developer, DataLabUSA, and oversee and facilitate their work. DataLabUSA will design and develop the analytic protocols, models, and an online data warehouse system that will be used to aggregate, analyze, and interpret data to increase the efficiency of professional educators to eliminate the achievement gaps and improve learning of all students. DataLabUSA has produced high-quality tools that maintain the highest levels of security and confidentiality.

Further, CTE will develop a companion professional development module and post resources on the Maryland Special Education Leadership Forum (Maryland's Electronic Learning Community-ELC). CTE will work with MSDE staff to facilitate communication linking Part B and C databases and in the development of the Maryland Online Infant and Toddler Family Service Plan (IFSP), Maryland's statewide online Individual Education Plan (IEP), *Student Compass*, and the Online Student Services Information System (SSIS). The deliverables of this project will directly link to those infrastructures and will provide a robust accountability system for Maryland's population. I look forward to the opportunity to collaborate with MSDE on this important project.

Sincerely,

Jacqueline A. Nunn, Ed.D.
Director

Section I. Appendix B: DataLab USA

DATALAB USA

TARGETING BETTER RESULTS

June 23, 2005

Jacqueline Ann Nunn
Johns Hopkins University
Center for Technology in Education
6740 Alexander Bell Drive
Columbia, MD 21046

Dear Dr. Nunn,

*DataLab*USA is pleased to serve as the technical experts and developers of analytic protocols, models, and an online longitudinal data system that will be used to analyze and interpret indicators of success in accordance with the requirements of the Maryland Longitudinal Data System in response to the Institute for Education Sciences application CFDA Number 84.372. As analytic model experts and technical developers of databases and website, we agree to collaborate and work with Maryland State Department of Education and the Johns Hopkins University Center for Technology in Education (CTE) on this important grant.

Known primarily for our state-of-the art data analytics and sophisticated predictive modeling services, we offer a complete range of database services to help organizations intelligently identify, monitor, and manage all aspects of their programs.

For the past 25 years, we have served clients ranging from some of the largest of the Fortune 500 to small and mid-sized organizations. Every client is unique in their challenges and we take pride in transforming these challenges into solutions.

During the last three years *DataLab*USA has worked with CTE in the development and successful deployment of the Part B and Part C databases as well as the Online Individualized Education Plan (IEP) and the Online Individual Family Services Plan (IFSP). We look forward to the opportunity to collaborate on such an important project.

Sincerely,

Hans Aigner,
President and CEO

20261 Goldenrod Lane Germantown, Maryland USA 20876
:: T 301-972-1430 :: F 301-972-3638 :: W www.datalabusa.net

ANALYSIS :: PREDICTIVE MODELING :: DATA MANAGEMENT :: DATA PROCESSING