

U.S. Department of Education

Washington, D.C. 20202-5335



**APPLICATION FOR GRANTS
UNDER THE**

Statewide, Longitudinal Data Systems

CFDA # 84.372A

PR/Award # R372A120027

Grants.gov Tracking#: GRANT11026339

OMB No. , Expiration Date:

Closing Date: Dec 15, 2011

****Table of Contents****

Form	Page
1. Application for Federal Assistance SF-424	e3
2. Assurances Non-Construction Programs (SF 424B)	e6
3. Grants.gov Lobbying Form	e8
4. Dept of Education Supplemental Information for SF-424	e9
5. ED Abstract Narrative Form	e10
<i>Attachment - 1 (1235-Project Abstract Final)</i>	e11
6. Project Narrative Form	e12
<i>Attachment - 1 (1240-Indiana Project Narrative Final for CFDA 84.372)</i>	e13
7. Other Narrative Form	e38
<i>Attachment - 1 (1236-Appendix A Optional Attachments Final)</i>	e39
<i>Attachment - 2 (1237-Letters of Support)</i>	e45
<i>Attachment - 3 (1238-Resumes of Key Personnel Final)</i>	e62
<i>Attachment - 4 (1239-Acronyms List Final)</i>	e84
8. Budget Narrative Form	e86
<i>Attachment - 1 (1234-Indiana Budget Narrative Final for CFDA 84.372)</i>	e87
9. Form ED_524_Budget_1_2-V1.2.pdf	e97

This application was generated using the PDF functionality. The PDF functionality automatically numbers the pages in this application. Some pages/sections of this application may contain 2 sets of page numbers, one set created by the applicant and the other set created by e-Application's PDF functionality. Page numbers created by the e-Application PDF functionality will be preceded by the letter e (for example, e1, e2, e3, etc.).

Application for Federal Assistance SF-424		
* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
* 3. Date Received: <input type="text" value="12/15/2011"/>	4. Applicant Identifier: <input type="text"/>	
5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text" value="84.372"/>	
State Use Only:		
6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>	
8. APPLICANT INFORMATION:		
* a. Legal Name: <input type="text" value="Indiana Department of Education"/>		
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="356000158"/>	* c. Organizational DUNS: <input type="text" value="8247992090000"/>	
d. Address:		
* Street1: <input type="text" value="Room 229 State House"/>	Street2: <input type="text" value="151 W Ohio Street"/>	
* City: <input type="text" value="Anderson"/>	County/Parish: <input type="text"/>	
* State: <input type="text" value="IN: Indiana"/>	Province: <input type="text"/>	
* Country: <input type="text" value="USA: UNITED STATES"/>	* Zip / Postal Code: <input type="text" value="46204-1905"/>	
e. Organizational Unit:		
Department Name: <input type="text" value="Innovation and Improvment"/>	Division Name: <input type="text" value="School Accountability"/>	
f. Name and contact information of person to be contacted on matters involving this application:		
Prefix: <input type="text"/>	* First Name: <input type="text" value="Jon"/>	
Middle Name: <input type="text"/>	* Last Name: <input type="text" value="Gubera"/>	
Suffix: <input type="text"/>	Title: <input type="text" value="Chief Accountability Officer"/>	
Organizational Affiliation: <input type="text"/>		
* Telephone Number: <input type="text" value="317-234-6849"/>	Fax Number: <input type="text" value="317-233-6326"/>	
* Email: <input type="text" value="jgubera@doe.in.gov"/>		

Application for Federal Assistance SF-424

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

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

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

U.S. Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.372

CFDA Title:

Statewide Data Systems

*** 12. Funding Opportunity Number:**

ED-GRANTS-092011-001

* Title:

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

13. Competition Identification Number:

84-372A2012

Title:

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

Add Attachment

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

Indiana's Education and Workforce Data System;a federated data system automating data linking and providing on-demand data access.

Attach supporting documents as specified in agency instructions.

Add Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

b. Program/Project

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

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal

* b. Applicant

* c. State

* d. Local

* e. Other

* f. Program Income

* g. TOTAL

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

a. This application was made available to the State under the Executive Order 12372 Process for review on

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

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

Yes No

If "Yes", provide explanation and attach

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

** I AGREE

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

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> <p>Jon Gubera</p>	<p>* TITLE</p> <p>Chief Accountability Officer</p>
<p>* APPLICANT ORGANIZATION</p> <p>Indiana Department of Education</p>	<p>* DATE SUBMITTED</p> <p>12/15/2011</p>

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

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* APPLICANT'S ORGANIZATION	
<input style="width: 100%;" type="text" value="Indiana Department of Education"/>	
* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Prefix: <input style="width: 100px;" type="text"/>	* First Name: <input style="width: 200px;" type="text" value="Jon"/> Middle Name: <input style="width: 150px;" type="text"/>
* Last Name: <input style="width: 300px;" type="text" value="Gubera"/>	Suffix: <input style="width: 100px;" type="text"/>
* Title: <input style="width: 250px;" type="text" value="Chief Accountability Officer"/>	
* SIGNATURE: <input style="width: 300px;" type="text" value="Jon Gubera"/>	* DATE: <input style="width: 150px;" type="text" value="12/15/2011"/>

SUPPLEMENTAL INFORMATION
REQUIRED FOR
DEPARTMENT OF EDUCATION GRANTS

1. Project Director:

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

Address:

* Street1:
 Street2:
 * City:
 County:
 * State:
 * Zip Code:
 * Country:

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

Email Address:

2. Applicant Experience:

Novice Applicant Yes No Not applicable to this program

3. Human Subjects Research

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

Yes No

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

Yes Provide Exemption(s) #:

No Provide Assurance #, if available:

Please attach an explanation Narrative:

Abstract

The abstract narrative must not exceed one page and should use language that will be understood by a range of audiences. For all projects, include the project title (if applicable), goals, expected outcomes and contributions for research, policy, practice, etc. Include population to be served, as appropriate. For research applications, also include the following:

- Theoretical and conceptual background of the study (i.e., prior research that this investigation builds upon and that provides a compelling rationale for this study)
- Research issues, hypotheses and questions being addressed
- Study design including a brief description of the sample including sample size, methods, principals dependent, independent, and control variables, and the approach to data analysis.

[Note: For a non-electronic submission, include the name and address of your organization and the name, phone number and e-mail address of the contact person for this project.]

You may now Close the Form

You have attached 1 file to this page, no more files may be added. To add a different file, you must first delete the existing file.

* Attachment:

Project Abstract: Indiana Education and Workforce Data System

Indiana is requesting funding for the development of a federated data system that will enable automated linkages between K-12, higher education and workforce data (RFA Priority Three). This system will advance Indiana's P-20 data system from its 1.0 version where manual linkages and time intensive protocols make data access a lengthy and arduous process to a next generation 2.0 system that leverages agency data for seamless data access and reporting without requiring the data to be physically loaded in a central repository. Working with other key agencies, the Indiana Department of Education will establish a governance council and a well-defined research agenda to guide the development and expansion of the proposed system.

Indiana has made steady progress on the development of its statewide longitudinal data system (SLDS) since initiating a unique student identifier in 2002. Work on this system was accelerated by a SLDS grant in 2007 and now Indiana has met the basic criteria for data systems outlined in the America COMPETES Act.

Key features of the existing system include role-based access to longitudinal performance data for K-12 students through the *Learning Connection* which boasts 60,000 registered users, and the development of the Indiana Workforce and Education Intelligence System that represents Indiana's first attempt to link K-12, Higher Education and Workforce data.

Indiana's reform legislation "*Putting Students First*" is propelling dramatic changes in Indiana's K-12 schools in an effort to improve outcomes for Indiana students. These student centered reforms and policies are powered by data. However, there still some agency and technology boundaries within the P-20 data continuum that make developing a complete profile of Indiana learners more challenging than it should be. For this reason, Indiana's Education Roundtable moved to fund a feasibility study for the development of a federated data system so that researchers, policy makers, state agencies and the public can have access to information about the results and trends of Indiana's education system. This study underscores Indiana's commitment to moving forward with the data system proposed in this grant application. Working with partners such as the Commission for Higher Education and the Department of Workforce Development, the Indiana Department of Education is seeking funding under RFA Priority Three for the development of Indiana's Education and Workforce Data System, a federated data system.

Project Narrative File(s)

* Mandatory Project Narrative File Filename:

To add more Project Narrative File attachments, please use the attachment buttons below.

Table of Contents

Table of Contents

- A. NEED FOR THE PROJECT 2
 - Status of Indiana’s Statewide Longitudinal Data System 2
 - Next Step for Indiana’s SLDS is Linkage to Higher Education and Workforce Data 5
 - Challenges Remain 7
 - Risk of Inaction—How Indiana Students Lose Without a P-20 System 8
- B. PROJECT DELIVERABLES RELATED TO SYSTEM REQUIREMENTS AND IMPLEMENTATION 8
 - Deliverable 1: Conduct feasibility study (in progress) 10
 - Deliverable 2: Convene a Governing Council 11
 - Deliverable 3: Define data management and controls 13
 - Deliverable 4: Design and build a federated data linking system 14
 - Deliverable 5: Report Design and User Support 16
- C. TIMELINE FOR PROJECT DELIVERABLES 18
- D. PROJECT MANAGEMENT AND GOVERNANCE PLAN 20
 - Project Management 20
 - Governance Plan 21
- E. STAFFING 21
 - Project Team 22
 - Project Director 24
 - Agency Leads 24
 - Contracted Members of the Project Team 24
 - Additional Contracted Resources and Vendors 25

A. NEED FOR THE PROJECT

“The path to real reform begins with the truth – and we must keep facing the truth and finding the answers until every classroom has a great teacher, and every child has an education that prepares him for college, for work, and for life.”

– U.S. Secretary of Education Arne Duncan

Like all Americans, Hoosiers are responding to the call for dramatic improvement in educational outcomes. This year, Indiana took the biggest step in state history to advance education reform by passing the “*Putting Students First*” agenda. This comprehensive legislative package, which focused on teacher quality and flexibility coupled with a marked expansion in educational options for students and families, represented a sea change to the state’s education landscape.

This sea change has propelled the expansion of the state’s Statewide Longitudinal Data System (SLDS). Data-driven accountability, built upon clear measures of student growth over time and direct student-teacher performance linkages, is a key tenet undergirding Indiana’s reform efforts. As the state continues to advance the bold education reforms within “*Putting Students First*” – reforms that align completely with the principle that better decisions require better information – Indiana is committed to ensuring that the state’s aggressive reform agenda is fueled by data and framed by evidence.

In doing so, the Indiana Department of Education (IDOE) recognizes that the achievement and preparation of Hoosier students does not occur solely within the confines of K-12 education. While the previous efforts focused primarily on addressing key components of the K-12 data system, IDOE and its partner agencies must now commit attention to a system that enables all stakeholders to gain insight into trends and patterns only observable when data from each part of the education continuum are seamlessly connected. To advance this objective, IDOE is requesting funds to support the development of a federated data system that will enhance key elements specified in the America COMPETES Act and targeted by *Priority Three* of the Request for Applications (RFA). Preliminary work on this system has already begun through a feasibility study that is outlined below.

The remainder of this section reviews the current status of Indiana’s SLDS, explains why post-secondary connections should be the next step, and concludes with a description of risks associated with leaving this work unfinished.

Status of Indiana’s Statewide Longitudinal Data System

Indiana meets **(M)** the criteria for each of the twelve basic SLDS elements as outlined in the America COMPETES act as shown in the table below. However, there is still much room for improvement and for further leveraging these basic elements to support research, transparency, and policy development. This proposal will dramatically expand and improve the capacity of Indiana’s P-20 data system as it relates to elements 4, 11 and 12 of the America COMPETES act.

Table 1. America COMPETES Elements
With respect to preschool through grade 12 education and postsecondary education:
1. A unique statewide student identifier that does not permit a student to be individually identified by users of the system (except as allowed by Federal and State law); (M)
2. Student-level enrollment, demographic, and program participation information; (M)

3. Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs; (M)
4. The capacity to communicate with higher education data systems; and (M)
5. A State data audit system assessing data quality, validity, and reliability. (M)
With respect to preschool through grade 12 education:
6. Yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965; (M)
7. Information on students not tested, by grade and subject; (M)
8. A teacher identifier system with the ability to match teachers to students; (M)
9. Student-level transcript information, including information on courses completed and grades earned; and (M)
10. Student-level college readiness test scores. (M)
With respect to postsecondary education:
11. Data that provide information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and (M)
12. Data that provide other information determined necessary to address alignment and adequate preparation for success in postsecondary education. (M)

Over the past nine years, with state support and federal funding, Indiana has made deliberate and steady progress on its SLDS. Beginning with the development of Indiana’s unique student identifier in 2002, the Student Test Number (STN) marked a key milestone in Indiana’s journey toward having an actual SLDS. The system, built to help Local Education Agencies (LEAs) and IDOE manage the assignment and inventory of the STNs, became the key data input system for Indiana’s SLDS. This system, the Application Center (App Center), is also the home for the School Personnel Number (SPN) application which manages the assignment and inventory of SPNs—unique identifiers for school personnel in general and Indiana educators in particular. The App Center is the point of origin for student and educator identifiers which serve as the foundation for all longitudinal efforts and for establishing data linkages between teachers and students.

In addition to originating student and educator identifiers, Indiana’s App Center is the system LEAs use to submit data to the IDOE through various annual collection cycles. LEAs load data at specified periods of the year, according to published file specifications and data layouts. As part of the data upload process, the App Center automates a variety of data quality checks and validations, including cross-field and cross-collection validations, according to each collection’s specific requirements. The App Center then rejects individual records (or entire files) not meeting requirements and provides users with error messages and instructions for correction. Additionally, the App Center produces post-collection summary and exception reports for data managers, building principals and district superintendents. Data collected through the App Center are then loaded into the IDOE data warehouse. End users are provided with access to these data through two main web portals: *Compass* which provides aggregated data profiles for each school and comparisons of school performance to state averages, and the *Learning Connection* which provides role based access to student-level data to school leaders, teachers, parents and students.

The IDOE currently maintains a large repository of longitudinal data, including the following elements collected through the App Center:

- Student demographics including Limited English Proficiency (LEP) and homeless status;
- Program participation (such as Title I, special education, alternative education);
- Performance on various assessments, including ISTEP+ (state standardized assessment), LAS Links (LEP), ISTAR (Indiana’s alternate assessment), End of Course Assessments (ECAs), ACT, SAT, AP, and PSAT;
- Students not tested and reasons for not testing;
- Dropout and mobility;
- Graduation and post-secondary plans; and
- Educator and administrator variables.

The 2007 SLDS grant award was instrumental to the development and expansion of Indiana’s SLDS. Indiana’s *Learning Connection*, created through the grant, established an important capacity for Indiana — providing student-level data to authorized educators at the classroom level. As mentioned above, *Learning Connection* provides role-based access to longitudinal student data. School and district administrators can see individual data on all the students they serve, teachers can see data for all students in their classes, parents can see the performance data for their children and students can see their own performance history.

In addition to implementing the *Learning Connection*, IDOE used the 2007 SLDS grant funds to accomplish the following:

- Implemented the unique educator identifier or School Personnel Number (SPN) and linked students to teachers;
- Constructed a data warehouse along with an OLAP database to facilitate data reporting;
- Increased data quality and reduced data redundancy.
- Developed and implemented a data governance system (data stewards, data sharing agreements, and data request processes/protocols); and
- Began linking data between K-12, higher education, and the workforce—the IWIS system described in more detail below.

In summary, Indiana’s current SLDS is comprised of five related systems:

System Name	Function	Users
Application Center	Collect Data from LEAs	Data Managers and School Administrators
Data Warehouse	Storage of data collected through the Application Center	All systems that consume data from the data warehouse. (e.g., Compass and Learning Connection: See Below)
Compass	Display aggregate data from the Data Warehouse	General public and those interested in aggregate data
Learning Connection	Display student level data	Educators, parents, students
Indiana Workforce and Education Intelligence System (IWIS)	Houses some linked P-20 data	State agencies and researchers

As indicated above, Indiana's current SLDS is a critical component of the state's reform efforts. Moreover, "*Putting Students First*" has generated incredible momentum towards leveraging the power of data to proactively drive continuous improvement. New accountability measures have elevated the importance of data in conversations about how to improve educational outcomes for students. For example, the *Learning Connection* provides a teacher with detailed academic profiles based on Indiana's growth model for each student in his or her class. Using information stored in IDOE's data warehouse, *Learning Connection* displays this performance history only to authorized teachers, administrators, parents and students. Based on reforms contained in "*Putting Students First*," student growth data is now required as a significant component of teacher evaluations. All of these factors increase educators' use of *Learning Connection*, which now has 60,000 registered users (See Appendix A).

Data that can be turned into information and then transformed into knowledge, action and foster real change should be the goal of any SLDS. With the recent passage of significant K-12 education reform, Indiana must expand the availability and usability of its data to include other aspects of Indiana's education system to better understand what must be done to improve P-20 student outcomes.

Next Step for Indiana's SLDS is Linkage to Higher Education and Workforce Data

While Indiana's efforts to date have yielded significant results, additional work is required to accelerate change and demonstrate all the capabilities of a fully functional SLDS. Two basic elements of a SLDS, as defined by the America COMPETES act, fall under the post secondary education heading. While Indiana has technically met these criteria through its data linkage projects with Ivy Tech, high school feedback reports generated by the Indiana Commission for Higher Education (CHE), and the Indiana Workforce and Education Intelligence System (IWIS) data warehouse project, more work remains to be done in more effectively and efficiently linking data and making it more accessible, more easily obtainable, and less burdensome to use (Elements 11 and 12). This proposal will also necessarily expand Indiana's capacity to communicate with higher education (Element 4) and workforce data systems.

Based on these criteria and preliminary efforts the state has already launched in this area, Indiana proposes the development of a federated data system that leverages existing infrastructure, security, and privacy protections but automates data linkages, mitigates security risks associated with longitudinal linked data, and provides on-demand access to linked data to authorized users. Further, Indiana plans to leverage the federated data system that will be created through this grant, as well as the systems it currently has in place (e.g., *Learning Connection*, *Compass*, etc.) to create a variety of reports that can be used to inform education policy.

Over the past three years, Indiana undertook two important projects to explore the challenges of linking IDOE data to higher education and workforce development data; they are described below.

Higher Education Data Linkage pilot

IDOE partnered with Ivy Tech Community College of Indiana (Indiana's statewide community college system, representing approximately 38% of statewide public higher education enrollment) to successfully link Ivy Tech data with IDOE's Student Test Number (STN) data; IDOE was able to successfully match more than 65% of Ivy Tech students to IDOE STN data. Approximately 35% of students could not be matched due to:

- Students' ages (*i.e., the students graduated from high school prior to the implementation of IDOE's STN system*);
- Maiden names (*IDOE's system maintains a student's maiden name while Ivy Tech files maintain a person's married name*);
- Students graduating from high schools outside of Indiana; or
- Multiple possible matches (*common names*).

Through the IDOE data sharing agreement, Ivy Tech is better able to track students as they move across Ivy Tech campuses, without requiring the use of Social Security numbers. Further, by obtaining data from Ivy Tech, the IDOE was able to examine college-going patterns for students who attend Ivy Tech, as well as characteristics of students who need remediation. As a result of the successful project with Ivy Tech, other public institutions and CHE have expressed interest in expanding the use of K-12's STN to encompass all public institutions in Indiana, with the possibility of also expanding to private institutions.

While the Ivy Tech project was successful in bridging some data gaps between K-12 and higher education, it proved to be more valuable in helping to figure out the challenges of linking those data. Summarily, the results pointed out the need for a system that could overcome the linking challenges.

Indiana Workforce and Education Intelligence System (IWIS)

For the past three years, IDOE has worked in conjunction with CHE, the Indiana Department of Workforce Development (DWD), and the Indiana Business Research Center (IBRC) to create the Indiana Workforce and Education Intelligence System (IWIS). IWIS is a data warehouse that stores linked K-12, higher education, and workforce data. Prior to July 2011, IWIS housed only linked workforce and higher education data, due to the lack of a common identifier between workforce/higher education data and K-12 data. However, based on the pilot work with Ivy Tech, IDOE tested the same weighted matching algorithm to link K-12 data with IWIS's workforce and higher education data in an effort to achieve true K-20 data reports. IDOE matched approximately 75% of its 2006 graduating cohort to IWIS data; approximately 70% of its 2007 graduating cohort; and approximately 63% of its 2008 graduating cohort. Currently, IBRC is developing reports to display the percentage of graduates attending higher education, percentage of graduates currently in the workforce, and associated salary information.

The important work conducted by IBRC, DWD, IDOE, and CHE for the IWIS project has laid the groundwork for the next phase—the development of a federated data system. Indiana sees the development of a federated data system as the “next level” of IWIS. While the IWIS project has had many benefits, such as the creation of protocols for handling data sharing agreements and data requests; early exploration of how to link data without having common identifiers; the creation of a data warehouse storing linked data; and several white papers and research reports (e.g., average wages by degree type across the state; job placement by degree type across the state), IWIS suffers from some limitations.

First, data linkages for the IWIS data warehouse have required a number of hours of manual work on the part of both IDOE and IBRC, and exchanging data between agencies follows a manual process as outlined below:

1. one agency extracts data from its system;
2. the data are linked;

3. the linked file is submitted via FTP to IBRC;
4. and IBRC then loads the data into the IWIS warehouse

As such, the exchange of data itself is very time consuming especially since the steps above are required each time new data is added from any agency (and this is simply to get data into the warehouse—additional manual processes, enumerated below, are followed to extract the linked data for research purposes).

Secondly, there is no commonly-defined process across agencies for how to link data. While this is not necessarily problematic as is (given that only three agencies are currently participating in IWIS), it would likely create more significant issues as more agencies joined in data linkages.

Thirdly, while IWIS is a secure system, simply by nature of being a warehouse environment where many years of identifiable, linked data are physically housed, there are certainly concerns about what might happen if the system were compromised.

Additionally, IWIS has suffered from difficulties in making data accessible to stakeholders. Much like the data exchange process, accessing data from IWIS is a manual process. In order for agency stakeholders to obtain data to load into their own warehouses, the agencies must

1. Contact IBRC and request the information;
2. Wait for a human response;
3. Wait for the database administrator to harvest the data being requested;
4. Have the data loaded onto an FTP by the DBA; and
5. Harvest the data from the FTP site.

The whole process can take anywhere from two weeks to three months, depending on the volume and type of request.

Challenges Remain

Identifying the limitations of IWIS is certainly not intended to diminish the important groundwork that it laid in moving forward with a federated data system. As noted, the invaluable work of IBRC and the partner agencies (IDOE, DWD, and CHE) with the IWIS project was instrumental in bringing three major agencies together; creating mechanisms for data sharing and data linkages; starting down the path of figuring out how to overcome not having common identifiers; and facilitating some high level reporting. Additionally, the Ivy Tech project, while it only affected one institution in the state, was valuable in helping to figure out the challenges of linking data. More importantly, these pilots illustrated the challenges that still exist and brought to light the need for a system that could overcome the linking and access challenges that presented themselves as part of both the IWIS project and the Ivy Tech STN project.

The amount of time needed to link data; the manual work required to both link and exchange data; and difficulty in accessing linked data housed in IWIS hinders Indiana's ability to reach the full potential of its SLDS in terms of making data readily available ("on demand"), as well as facilitating access to linked data for state agencies and other stakeholders. Indiana's SLDS currently faces the following limitations:

- Indiana's agencies lack a common set of data elements and data standards to allow for system interoperability and true comparability data on the same individual across source systems.

- Indiana’s current approach to matching data is personnel intensive thus creating delays for researchers and policy makers in using the data.
- Accessing linked data is cumbersome and time consuming and requires significant staff time, thus limiting the ways in which the linked data can be effectively used.
- Having large amounts of identifiable, longitudinal (P-20) data physically housed in a single warehouse can create security and privacy concerns.
- While the current governance model that provides structure to the data arrangement among IDOE, DWD, and CHE guides the ongoing collaboration between these entities, there are no formal structures for extending the agreement to include other agencies and there is no research agenda to shape the further development of the system.

Risk of Inaction—How Indiana Students Lose Without a P-20 System

“*Putting Students First*” is the organizing idea for the legislative reforms enacted and currently being implemented by IDOE. In contrast, the longitudinal data systems that underlie the educational continuum in Indiana are not yet organized in a way that fully realizes the potential power of the data. Indiana’s current P-20 system makes the production of fully developed student learning profiles not only inconvenient, but it also precludes the optimal use of data as an integral part of raising student achievement and closing achievement gaps. Moreover, partially developed portraits are no longer acceptable. If Indiana’s SLDS is not designed to automate and further facilitate data linkages, data access, and data reporting, the state risks:

- *Suffering the status quo of poor preparation for post-secondary education and low post-secondary and college attainment that has typified Indiana over the years.*
According to the National Governor’s Association, only 33% of adults ages 25-64 in Indiana have a postsecondary degree (Associate’s or higher). With this attainment rate, Indiana significantly lags behind the national percentage of 38%. Further, according to the Indiana Commission for Higher Education, approximately one fifth of recent Indiana high school graduates who go on to postsecondary education require remediation. Policy makers and researchers need access to the data sets, reports, dashboards, and analytical tools available through the proposed system to inform taxpayers and policy makers in a timely and user-friendly manner about key P-20 educational trends.
- *Fragmenting efforts to understand student outcomes across the P-20 spectrum.*
A cross-cutting view of student learning is required—one that is organized around students and not cut short when students move from one system to another on the continuum.
- *Limiting support for consumers of the education services provided by Indiana institutions.*
The transparency of the proposed system will provide education consumers with new tools for evaluating and selecting educational options.

B. PROJECT DELIVERABLES RELATED TO SYSTEM REQUIREMENTS AND IMPLEMENTATION

Overall Project Outcome: Develop and implement a federated data system

At its highest level, Indiana’s proposed project will have a key outcome: the development of a federated data system.

This federated data system (also referred to here as the Indiana Education and Workforce Data System) will connect multiple state agency data sources, including existing K-12, higher education, and workforce systems. Each of these data systems are maintained independently by

their respective state agency, run on different platforms, and meet different state agency needs and reporting requirements. These systems have evolved over time in response to various agency needs—needs which are not necessarily obviated by a P-20 system. Rather than focusing on physical solutions that combine agency systems into superstructures, it is more appropriate and strategic to focus P-20 data system development efforts on the data outputs of such systems rather than attempting to re-engineer all of the business rules that have shaped these systems in the first place. In other words, the reality that agencies have different systems is not the problem that needs to be solved in order to have a robust P-20 data system. Rather, the obstacle to overcome involves combining the data outputs of these disparate systems. To coordinate diverse data sources within a multi-agency environment with continually evolving data needs, Indiana proposes adopting a federated data system approach to successfully implement a robust P-20 data system.

A federated data system interacts with multiple participating agencies' data sources on the back end, while presenting itself as a unified system (through a single point of access) on the front end. The system allows end users (agency stakeholders, legislators, educators, researchers, and the public) to query data that lives in various systems (with the appropriate permissions and controls in place) and allows participating agencies to leverage the system as a resource to build upon existing reporting structures to create aggregated longitudinal data reports. Further, the system would make important data available on demand to K-12 school districts and institutions of higher education, potentially reducing the amount of IT labor needed to create reports and track longitudinal student information. Such a system would be integrated and interactive and support data querying that could be used to inform policymaking, program evaluation, and research. (See Appendix A: Indiana Education and Workforce Data System Conceptual Diagram.)

In order to meet Indiana's needs and the RFA's *Priority Three* requirement, the state has identified five major deliverables that will enable development and implementation of a federated data system:

1. Conduct feasibility study
2. Convene a Governing Council
3. Define data management and controls
4. Design and build a federated data linking system
5. Design report delivery systems/reports

To address the *Priority Three* requirements, the proposed federated data system will enhance and facilitate data linkages across all levels of the P-20 spectrum—especially higher education and the workforce. As the lead agency in the proposed effort, IDOE has redoubled its efforts to focus on preparing all students for College and Career readiness. IDOE's vision is that the academic and career preparation of all Indiana students will be the best in the United States and on par with the most competitive countries in the world. IDOE recently included College and Career readiness in its statewide school and district accountability system which was approved by the Indiana State Board of Education in November, 2011. Access to data that provides timely insights regarding where to improve upon these efforts and focus additional reform efforts as well as data that can be used to measure the effectiveness of existing reforms and policies has never been more important. IDOE's partners in this effort, CHE and DWD have a similarly pressing need to understand the full spectrum of educational and career attainment. These needs

for accurate and timely data have outstripped Indiana's current SLDS system. The system proposed here will address the deficiencies of the current system and create a foundation for further expansion of SLDS to include the data sources of other agencies.

To ensure that the project remains on target and produces the desired results, Indiana will contract with an independent evaluator to evaluate its progress in meeting its deliverables and objectives. The evaluator will be responsible for reviewing the project plan with the Steering Team; identifying outcome metrics for each deliverable; and conducting both progress and outcome evaluations of the project. The evaluator will conduct stakeholder interviews and surveys to ensure that the system and ensuing reports will meet the needs of stakeholders and will be responsible for measuring Indiana's progress toward meeting its outcome metrics, as well as helping the Steering Team identify and make any adjustments necessary if it is identified that the project is not on target to meet outcomes. Indiana's evaluator will be a reputable evaluation agency with experience in statewide and multi-state evaluations of various educational projects. Preferably, the evaluator will have experience evaluating SLDS projects and shall be a nationally recognized evaluation organization. IDOE will follow the requirements of the Indiana Department of Administration and all IDOE requirements for vendor selection.

Deliverable 1: Conduct feasibility study (in progress)

Indiana has already initiated core planning and analysis for development of a federated data system that will augment the existing SLDS.

Indiana is fully committed to developing a federated data system to support data-driven policy making in the Hoosier state. Work is already underway help Indiana reach this goal. To examine the feasibility of implementing a federated data system, Indiana's Education Roundtable (a statutorily created bipartisan committee chaired by the Governor and the State Superintendent and comprised of key leaders from K-12, higher education, business, industry, labor, parents, community, and the Indiana General Assembly), awarded a \$40,000 planning grant to the Kualii Foundation on November 29, 2011. The Kualii Foundation has unique intergovernmental data system expertise, having worked with numerous institutions of higher education around the world to create student management, financial, and human resources data systems. As part of the planning grant, Kualii will do the following:

- Interview stakeholders at potential participating agencies such as IDOE, CHE, DWD, State Student Assistance Commission of Indiana (SSACI), Indiana State Department of Health (ISDH), Indiana Family and Social Services Administration (FSSA) and the Indiana Office of Technology (IOT) to determine agency needs, interests, and implementation barriers regarding a federated data system.
- Identify required agency or other resources (human resources, IT capabilities) required for system development and implementation.
- Examine federated data system work in other states.
- Explore potential federated data system governance mechanisms across participating agencies.
- Explore the federated data system's impact on reducing IT labor effort associated with data reporting and longitudinal tracking at K-12 school districts and higher education institutions.
- Estimate timelines, as well as one-time and recurring costs, for system implementation.
- Define a sustainability plan for the system beyond initial implementation.

- Enumerate the main benefits and risks of the proposed federated data system approach, comparing and contrasting the risks/benefits of other potential longitudinal data system solutions (e.g., a shared data warehouse among agencies).
- Identify preliminary end-user functionality and needs by interviewing a set of potential third-party users (e.g., Indiana Fiscal Policy Institute; Indiana Chamber of Commerce; Indiana Legislative Services Agency; K-12, higher education, and adult education teachers and administrators; and researchers).

The work done by the Kualí Foundation under this planning grant will help Indiana ensure it is fully prepared and has the appropriate mechanisms in place to successfully implement and sustain a federated data system. Kualí’s findings will help Indiana understand core end-user needs. These needs will drive and inform the development of the federated data system’s web-based portals and tools that users will utilize in accessing data. Additionally, Kualí’s study will identify potentially unforeseen obstacles in building a federated data system by uncovering lessons learned from the successes and failures of similar efforts in other states. Indiana anticipates the project plan articulated in Section D will be a living document and may be adjusted based on the key findings from Kualí’s work. The fact that Indiana’s Education Roundtable, a diverse body of stakeholders from K-12, postsecondary education, and the workforce, have supported a planning grant for this type of feasibility study demonstrates that Indiana has a strong level of support for the implementation of a federated data system.

Deliverable 2: Convene a Governing Council

To ensure the long-term success of Indiana’s SLDS, Indiana must design and implement governance structures appropriate for guiding and overseeing a federated data system environment.

At a minimum, the Indiana Education and Workforce data system being proposed would offer linked data from three agencies: IDOE, CHE, and DWD. Ideally, the system would also offer linked data from the Family and Social Services Administration (FSSA); State Student Assistance Commission of Indiana (SSACI); and Indiana State Department of Health (ISDH) as an expansion on the project proposed here. The federated data system will require a strong governance process across participating agencies to ensure the robustness of the system, data security and confidentiality, system utility and sustainability. It is imperative that each agency has some influence over the research agenda that will focus the development of the system.

To this end, Indiana will convene a Governing Council comprised of participating state agencies and other key stakeholders (See Table 2).

Table 2. Governing Council Members	
Agency/Organization	Representative
Office of the Governor	Governor Mitch Daniels
Indiana Department of Education	Tony Bennett, Superintendent of Public Instruction
Commission for Higher Education	Teresa Lubbers, Commissioner
Department of Workforce Development	Mark Everson, Commissioner
Indiana’s Education Roundtable	Dan Clark, Executive Director
Indiana Chamber of Commerce	Derek Redelman, Vice President of Education and Workforce Development Policy

Members of the Governing Council will have a deep and vested interest in the educational outcomes of Indiana's students as well as the state's overall economic development. The Governing Council will set the course for Indiana's Workforce and Education Data System by setting a research agenda to be accomplished through new levels of data access and linking made possible through the system, establishing agency support at the executive level, and empowering the Steering Team to drive the various phases of the project. Members of the Governing Council will have the authority to commit agency/organization resources to complement the direct support through the grant and to sustain the federated system once the initial funding cycle is complete.

In addition to coalescing support for the research agenda and development and expansion of the federated data system that provides the data necessary to accomplish the research agenda, the Governing Council will also address the following:

- Document governance structure and protocols for membership on the council
- Seek new members of the federation consistent with capacity and research agenda
- Review policies regarding data confidentiality, access, and use.

The Governing Council is *not* a Steering Team for the proposed project. Rather, this high level group will focus on creating the conditions for long-term success of the federated data system and identifying a statewide research agenda for P-20 issues. The Governing Council will consult with Indiana's SLDS evaluator and the Steering Team to bring forth the statewide research agenda around important P-20 topics. A project team and Steering Team will be responsible for the day-to-day efforts and outcomes that together will complete this phase of the project. The relationship between the Governing Council, steering team and project team are outlined in diagrams included in Appendix A.

Five tasks contribute to this deliverable.

2.1 Recruit the Governing Council members

- Identify appropriate representation from participating agencies and other key stakeholders;
- Confirm commitment from potential Governing Council members.

2.2 Develop the Governing Council charter

- Construct a founding document for the new decision-making body;
- Define the Governing Council, purpose, scope and authority (e.g., data sharing, confidentiality, ownership, access);
- Formalize initial membership of the Governing Council and member/officer roles and responsibilities;
- Set standard meeting schedule;
- Establish the by-laws (e.g., consensus, quorum), including procedures for amending the charter and for adding/removing council members.

2.3 Develop vision and research agenda

- Articulate an overarching vision for a federated data system and, by association, Indiana's SLDS direction;
- Set long term SLDS strategic goals;

- Specify initial research and policy objectives, priorities, and milestones;
- Establish quantifiable performance measures associated with goals and objectives.

2.4 Develop governance model and policies

- Clearly define participating agency and other stakeholder roles and responsibilities, and decision-making policies and processes;
- Establish tools (e.g., business case, balanced scorecard, technology qualifications report) to support decision-making and evaluation;
- Develop criteria, processes, and policies for elevating issues to the Governing Council;
- Create and implement stakeholder communications plan.

2.5 Create/enhance data sharing agreements

- Define data sharing standards;
- Approve SLDS-related data sharing agreements.

Deliverable 3: Define data management and controls

Prior to building the federated data system itself, Indiana will establish common standards and controls to ensure data quality, accuracy, interoperability and security.

Because IDOE, CHE, and DWD house different existing data systems, it is crucial to develop a comprehensive dictionary which will document all of the data element definitions, metadata requirements, and technical requirements necessary to create the federated data system. Many datasets are similar but are not consistent across agencies (i.e., they do not mean the same thing). As such, the development of a data dictionary will ensure that all common and unique definitions for data elements are captured. Capturing these similarities and differences will provide a conceptual map defining how users may retrieve data, driving the system's ability to retrieve, recode and organize data.

The federated data system will contain a highly secure registry which links agency-specific individual identification numbers to enable longitudinal P-20 educational research and analysis. IDOE will finalize this system's design as part of this project, but it will most likely leverage industry standard master data management approaches, such as deterministic and probabilistic matching, for entity resolution. This approach will ensure a very high level of data indexing and linking integrity.

Three tasks contribute to this deliverable.

3.1 Develop data dictionary and mapping table

- Identify existing data sources and data sets across all participating agencies (including needed, but missing data sets);
- Determine data sets to be shared in support of the council's strategic goals and policy objectives;
- Define common data exchange standards and semantics for data to be shared, aligning with emerging standards when appropriate;
- Create a mapping table which links common dimensions across participating agencies' data sources as well as to relevant data standards.

3.2 Develop security measures and implementation plan

- Define access control and system security standards and policies based on the Governing Council guidelines and applicable state and federal privacy laws;
- Document methodology and approach to data storage (if applicable) and metadata management;
- Define steps required to implement and test security policies during federated data system development;
- Develop and implement data security training plan.

3.3 Develop and implement data quality and audit plan

- Evaluate quality and accuracy of existing data sets to be shared;
- Reconcile major data quality and/or accuracy issues with existing data sets;
- Develop and implement data life cycle quality controls;
- Define regular audit processes, policies, and timing.

Deliverable 4: Design and build a federated data linking system

The core of a federated system, made possible by the governance structures and data management and controls, is the software that creates the linking engine to query data across agency systems.

A functional federated data system acts as a metadata repository for the various data elements that are available from participating agencies. Each participating agency is responsible for exposing its data to the Indiana Education and Workforce Data System through web services. The system fills data queries by extracting data on demand from the multiple data sources. Data sets requested from the system are constructed by querying participating agencies' data sources via web services.

Of paramount importance for a longitudinal data system is data security and participant confidentiality, as well as the ability to accurately link participant data. The Indiana Education and Workforce Data System would alleviate issues associated with the lack of a common identifier (e.g., K-12 uses STN; workforces use SSN; early childhood programs have early childhood IDs, etc.) in record-level data across agencies by creating a data linking system. The data linking system also eliminates the need for any individual agency or entity to manually link data sets and eliminates any need for sharing files that may contain confidential or protected information. Data linking is accomplished by creating a hash of identifier attributes that are common across participating agencies. When the Indiana Education and Workforce Data system requests data from an agency data source, it provides a salt. The agency's system then uses this salt along with a pre-defined hashing algorithm to return de-identified data to the federated system. Through this data linking, no identifiable data are ever returned to the Indiana Education and Workforce data system. Thus, the system permits data to be linked and shared with stakeholders (whether at the record level or in the form of aggregated reports) in order to facilitate longitudinal research, but it does not allow personal identification of any of the individuals used in the data set. As such, it is fully FERPA-, HIPAA-, and all other privacy-related legislation-compliant. Access to de-identified record-level data is further managed through user authentication and authorization schemes.

Six tasks contribute to this deliverable.

4.1 Develop use cases

Based on and building from the input from the planning grant funded by Indiana's Education Roundtable (Deliverable 1), the discovery activities will be aimed at developing a library of use cases and policy questions that will provide the foundation for what the system will be able to do when it is live and in production. These use cases will be written by the project team and validated by the Steering Team. These scenarios will aim for a holistic and realistic sense of the scope of the first iteration of the system. Important to this phase will be use cases that appropriately sample the range of consumers and users of the data system along with a sufficiently nuanced set of tasks, reports, and user behaviors that the first version of the federated system will need to support. These use cases will be deconstructed as the first step in the development of detailed requirements for the system.

4.2 Define and validate requirements and mock-up reports

Business owners working with business analysts will develop a full set of requirements for the system. While the use cases capture various stories of use, the requirements explicitly catalogue all of the system functionality that is real and implied by the use cases. It is important these requirements are sufficient for supporting the use cases and comprehensive enough to represent the components of a functional and market-ready solution.

A key aspect of the requirement definition for the federated system is identifying the kinds of reports that the federated system will need to feed. Understanding the kinds of queries and reports that end users of various types will be able to access once the data from the federated system is available represents, in large measure, the sum of what this federated system must be able to do. Without reporting structures and reports designed to be useful and informative for educators, researchers, policymakers, and the public, the federated data system will not reach its potential. Using the statewide research agenda as a guiding force, coupled with information obtained in stakeholder surveys and interviews, Indiana will identify reports to be created using data from the federated system.

The requirements and use cases should also be brought to life with a small set of report mockups and wireframes that prototype the new system and illustrate the anticipated results of the work. Attention to prototyping produces the following benefits:

- Serves as an important communication tool over the life of the project and will serve as a communication bridge between technical and less technical stakeholders.
- Serves as a check on the completeness of the design work—what, if any, requirements were missed?
- Provides a means for gathering early feedback from governance council, Steering Team, and a wider audience of end users and for managing expectations about project outcomes.

4.3 Develop logical system design and data modeling standards

The next design phase involves creating a logical design document. Here the design lens is turned toward the relationships between data elements, the flow of data through the system, and the workflows of the end users. The logical design illustrates how the business requirements will be met by showing the relationships among various parts of the system and the flow of

information through the system. Input from the system architect, database administrators and report writers is key to this stage of the design cycle. See Appendix A for a high level conceptual diagram of the proposed system.

4.4 Develop physical system design

Following the completion of the requirements and the logical design, the system architects will draft the physical layout of the system from a hardware and software perspective. At this level the location and configuration of physical equipment is specified.

4.5 Build and test federated data system

At the conclusion of the design phase, construction of the system may begin. This is where the blueprint laid out in the design documents is brought to reality by software developers, database administrators, and system architects. The software is built in phases or stages with each passing through a rigorous quality assurance process. As the system passes through various stages of the construction process, select users will begin testing early versions of the software. This user acceptance testing is critical to ensuring that the software performs as expected.

In the User Acceptance Testing of the federated data system, the steering team and a select group of likely end users will validate the system and identify any bugs to be fixed prior to general release.

4.6 Launch federated data system

An important part of the rollout phase will be the pilot use of the new system by select stakeholders. Ideally these stakeholders will be selected to parallel the anticipated use cases which the system was designed to fulfill. We will use these pilot scenarios to provide feedback to the project team about contextualized use of the system as well as any unanticipated challenges or bugs.

At a minimum, the following pilots are anticipated:

- Select users from within each of the participating agencies and organizations represented on the Governing Council or steering team
- Select users from higher education institutions
- Select users from K-12 LEAs

Once the federated data system is operational, Indiana will work with the Steering Team and selected evaluator to conduct stakeholder interviews to determine desired reports to be created from the system (described below). Upon completion of this deliverable, an approved group of users will have the ability harvest data on demand using the federated data system. This access will be provided through a user interface or direct querying that returns the requested data regardless of source system.

Deliverable 5: Report Design and User Support

Creating meaningful reports and providing users with technical and interpretation support will be critical to realizing the power and benefits of the new data linking system.

While the power of a P-20 data system will be evident to state agency stakeholders and IT staff and the research community as a result of Deliverable 4, designing meaningful reports and providing technical and data use support will be key to expanding the use of the system and

realizing the benefits of this work on a broader scale. Another challenge for the federated system is that it will make data available across sources systems which will lead to questions about data definitions, additional research questions, and the need for general orientation to data available from various sources systems. For example, individuals who are comfortable navigating IDOE source systems and data elements will likely need some orientation and training around the kinds of data that are made available through CHE and DWD.

No matter how good the data system, the system and the data it contains have minimal value unless stakeholders can easily access and use them. It is imperative that educators and stakeholders have access to informative, user-friendly reports. Data itself cannot bring about meaningful policy- and decision-making. Rather, users of the federated data system must be provided with training so that all users know how to access current data reports and have support for interpreting them.

Two tasks contribute to this deliverable.

5.1 Develop and deploy reports and data query interface

It is important to understand that once the automated data linking system is developed it can begin to provide access to its linked data in one of two ways: either through data queries that return data files for further analysis, or through reports that are fed by the federated data system. This means that reports can be generated by anyone who has reporting tools and access to the federated data system. For example, each agency could leverage existing reporting platforms to make this federated data available. The anticipated scenarios for reporting will be identified through the design and discovery efforts outlined in Deliverable 4 but that actual reports themselves will be built and deployed as part of this deliverable.

One of the key design challenges for the federated system will be to provide for the needs of both sophisticated and novice data users. Some of this can be controlled by utilizing role-based access to present an interface and layout that matches the level of data sophistication and likely interests of the users. This system will need to provide for data access using canned and ad hoc reporting.

The interface of the system should also provide embedded support or affordances for the appropriate and efficient use of the system. Indiana anticipates engaging with data visualization and reporting experts to ensure that the linked data available through the federated system is presented as effectively as possible. To this end, Indiana will likely develop reporting standards and recommendations to support the work of participating agencies in providing reports fed by the system.

Also noteworthy is the federated model is efficient in that it relies on existing agency capacity for collecting, validating, and sustaining systems rather than creating expansive new enterprises. This characteristic of the system extends to the reporting options available. Each participating agency and organizational partner can gain access to the new linked data from the federated system and can consequently provide access to the data for their users in a manner consistent with their constituents' needs. While this approach offers good sustainability options since the agencies participating in this project already have reporting tools and platforms that they may elect to use in serving up data from the federated system, there are still opportunities for agencies to work together on creating reports. The federated model provides highly flexible options for reporting.

5.2 Design and implement professional development plan

Support for system use and data interpretation are key to the success of this initiative. Indiana anticipates the development of several levels of support including thorough background information on the initiative, data definitions, frequently asked questions, and a help system that provides video and text-based guidance on how to use the key features of the system.

Along with technical support capabilities, Indiana will create a video library of tutorials that provide basic guidance on data interpretation and use. The following activities summarize the key milestones in developing a user support system.

- Select and hire a consultant to develop and deliver professional development and training materials.
- Develop a training plan related to the technical use of reports created through the federated data system.
- Develop a training plan related to using data for meaningful policy- and decision-making (i.e., data use) as it relates to student behavior and learning, K-12 student outcomes, post-secondary and workforce outcomes, and the economic impact of education in Indiana.
- Design and develop online, face-to-face, and “train the trainer” training modules.
- Create mechanisms for users to provide feedback on all aspects of the training and professional development in order to enhance these offerings.

C. TIMELINE FOR PROJECT DELIVERABLES

IDOE will collaborate with CHE, DWD, several Indiana institutions of higher education, LEAs, and professional services contractors to complete the stated deliverables and achieve desired project outcomes in accordance with the timeline included in this section. IDOE will oversee the work using a defined governance plan (see “Project Management and Governance” section), which details the roles and responsibilities of specific participating agencies and staff.

First year activities (2012-2013) will be geared primarily toward establishing a solid foundation of governance and oversight, as well as specifically defining the controls, processes, and procedures necessary for the highest level of data quality and security. Second and third year activities will focus on building the system itself, including design and testing, and undertaking extensive training and marketing campaigns. By achieving these milestones, Indiana’s overall SLDS use and capabilities will be enhanced, and position Indiana as a leader in data driven decision making for education.

The table below presents estimated initiation and completion dates for each proposed deliverable and task, as well as the responsible party/parties. Detailed timelines for each outcome are included in Appendix A. For space saving purposes, this table uses the following acronyms not included in Appendix D:

- **IER** – Indiana’s Education Roundtable
- **KF** – Kuali Foundation
- **GC** – Governing Council
- **PM** – contracted Project Manager
- **BA** – contracted Business Analyst
- **TL** – contracted Technical Lead

Table 3. Project Timeline				
Description	Party/Parties Responsible	Start Date	End Date	
Deliverable #1 – Conduct feasibility study	KF, CHE, Indiana Chamber	Nov-11	Mar-12	
Deliverable #2 – Convene the Governing Council	IDOE, CHE, DWD, GC, PM,			
2.1 Recruit governing council members	IDOE, PM	Jul-12	Sep-12	
2.2 Develop governing council charter	GC, IDOE, CHE, DWD, PM	Jul-12	Sep-12	
2.3 Develop vision and research agenda	GC	Jul-12	Dec-12	
2.4 Develop governance model and policies	GC, IDOE, CHE, DWD	Oct-12	Mar-13	
2.5 Create/enhance data sharing agreements	GC	Jan-12	Mar-13	
Deliverable #3 – Define data management and controls	PM, BA, TL, IDOE, CHE, DWD, GC			
3.1 Develop data dictionary and mapping table	PM, BA, TL, IDOE, DWD, CHE	Jul-12	Dec-12	
3.2 Develop security measures and implementation plan	PM, BA, TL, IDOE	Oct-12	Mar-13	
3.3 Develop and implement data quality and audit plan	PM, BA, TL, IDOE	Jan-13	Jun-13	
Deliverable #3 – Design and build a federated data linking system	PM, BA, TL, IDOE, CHE, DWD, Contractors			
4.1 Develop use cases	PM, BA, TL, IDOE, CHE, DWD	Apr-13	Jun-13	
4.2 Define and validate requirements and mock-up reports	PM, BA, TL, IDOE, CHE, DWD	Apr-13	Sep-13	
4.3 Develop logical system design and data modeling standards	PM, BA, TL, IDOE, CHE, DWD, Contractors	Jul-13	Dec-13	
4.4 Develop physical system design	PM, BA, TL, IDOE, Contractors	Oct-13	Mar-14	
4.5 Build and test federated data system	PM, BA, TL, Contractors	Apr-14	Dec-14	
4.6 Launch federated data system	PM, BA, TL, IDOE, CHE, DWD, Contractors	Oct-14	Mar-14	
Deliverable #5 – Develop reports and implement user support	PM, BA, TL, IDOE, CHE, DWD, Contractors			
5.1 Develop and deploy reports and data query interface	PM, BA, TL, IDOE, CHE, DWD, Contractors	Jan-15	Jun-15	
5.2 Design and implement professional development plan	PM, BA, TL, IDOE, CHE, DWD, GC, Contractors	Oct-14	Jun-15	

IDOE will leverage work products from the Kualu Foundation’s feasibility study, Indiana’s previous SLDS grant, as well as SLDS-related resources and information currently maintained by participating state agencies. This advance work provides IDOE with a strong foundation from which to begin this project and significantly reduces the risk of unforeseen barriers and challenges.

Due to the need for collaboration across multiple agencies, IDOE will contract a professional project manager to oversee the entire lifecycle of the proposed project and work in partnership with IDOE's internal project management staff. The project tasks and deliverables are scheduled to overlap whenever dependencies allow, enabling optimal use of available resources. The dates and durations have been estimated based on current and prior experience of IDOE and key agency partners such as CHE.

D. PROJECT MANAGEMENT AND GOVERNANCE PLAN

Project Management

Indiana is confident that it will achieve the objective of building a federated data system on time and within budget by utilizing a project management framework that includes a project charter, project scope documents, a project plan that includes detailed timelines and responsibilities, and continuous communication across agencies, project staff and contractors. It will be of paramount importance to have effective communication and keep the common goal in mind. Knowing that this project will be complex and involve participation from many state agencies and individuals, Indiana intends to contract with an outside agency to identify a project manager. Contracting with an external project manager will help to ensure that the needs of all agencies involved with the project are represented and met. As mentioned, the project manager will work closely with the project director as well as other key project members across agencies in keeping with the project plan and budget. The project manager reports progress to the project director and is a member of the Steering Team, responsible for scheduling meetings, revising the project plan (as necessary), and maintaining notes on project progress for reporting to all key stakeholders. Please refer to Section C for a high-level timeline and responsibility chart organized by deliverable and sub task.

The project management structure will have three tiers. The first tier is the Governing Council described in more detail within Deliverable 2. This level of management sets the general direction for Indiana's P-20 data system and is comprised of executive representation from participating agencies and stakeholder organizations.

The second tier of the project management structure is the Steering Team which guides the project in the direction set by the Governing Council but is much more involved in the day-to-day work on the project. This group meets on a regular basis and is comprised of agency leads, and other core project staff such as the contracted project manager. This team provides regular reports to the Governing Council regarding project metrics and milestones. The project evaluator also works closely with the Steering Team to provide third party insights into project pace and quality. The project director and project manager will be responsible for quarterly meetings with the IES grant officers.

The Project Team is the third tier of the project management structure and includes all of the members of the Steering team as well as all agency and contract contributors to the project. This team is led by the project manager and the project lead and provides regular reports to the Steering Team. The Project Team bears responsibility for day-to-day execution of project work and accomplishment of project deliverables.

Appendix A includes a diagram that explains the roles and responsibilities of each of the key elements of the project management structure.

Governance Plan

Indiana recognizes that its efforts will not be successful without a clearly defined governance structure; moreover, multiple agencies and partners must be included as Indiana builds a federated data system. Indiana will take care to ensure that all relevant stakeholders are involved in some capacity in decision-making for activities proposed in this grant application.

All SLDS grant activities will be overseen by the Governing Council (described in Section B, Deliverable 2). This council is made up of top officials from all partnering agencies and organizations with a keen interest in the outcome of this grant. Other agencies to be represented on the council are the Office of the Governor, Indiana Chamber of Commerce, and Indiana's Education Roundtable. The council provides oversight for the project to ensure the proper alignment among participating entities, external vendors, and the overall project management apparatus, as well as to ensure alignment with IDOE's, CHE's, and DWD's missions, visions, and objectives. Furthermore, the Governing Council ensures that project expenditures are within budget. The Governing Council reviews progress, approves budget changes, tracks performance and addresses any issues stemming from operational development and deployment.

The Steering Team oversees the day-to-day operations of the project. The Steering Team is made up of the Project Director (Jon Gubera), Project Manager (TBD), CHE Project Lead (Molly Chamberlin), DWD Project Lead (Scott Sanders) and representatives of IBRC. The Steering Team shall meet at least monthly to discuss progress on the project plan, make budget and project plan changes (which are ultimately approved by the Governing Council), review project progress, and resolve any known issues. In addition to a Steering Team is a SLDS project team which includes stakeholders from various internal and external agencies. The project team acts to inform the direction of the project to ensure that the federated data system is able to answer key policy questions relevant to Indiana.

The project director monitors implementation and ensures deliverables are met. The project director reports progress to the Governing Council and works closely with the project manager to monitor the day-to-day operations of contractors and internal and external resources in keeping with the project plan and budget.

E. STAFFING

The Indiana Department of Education is forming a project team for the proposed project. As the table below indicates, each of the partner agencies (IDOE, CHE, and DWD) have identified staff members to serve on the team in various capacities. The table below lists the roles, responsibilities, represented agency and a percentage allocation of each individual's time. In some cases there are multiple individuals in the same role representing the participating agencies. Resumes for key individuals are provided in Appendix C.

An important feature of the staffing model for this project is the set of full-time contracted positions. The agency level expertise will be augmented by full-time experts in project management, business analysis, and technology development/system architecture. Ideally, these individuals would come as a package from a consulting firm with prior experience working together and with the backing of the organization's resources and networks. These individuals will be hired following the award of the grant, report to the Project Director and provide the critical mass to the nucleus of the project team.

Project Team

Role	Responsibility	Agency	Assigned Person
Project Director and Agency Lead	Leads project oversight and monitors the day-to-day implementation of the project, especially as it relates to the K-12 needs and aspects of the project. Also acts as the Agency Lead and Steering Committee member.	IDOE	Jon Gubera, Chief Accountability Officer (25%)
Agency Lead	Leads project oversight and monitors the day-to-day implementation of the project, especially as it relates to the higher education needs and aspects of the project. Also acts as a Steering Committee and Project Team member.	CHE	Molly Chamberlin, Associate Commissioner for Research and Information (25%)
Agency Lead	Leads project oversight and monitors the day-to-day implementation of the project, especially as it relates to the workforce needs and aspects of the project. Also acts as a Steering Committee and Project Team member.	DWD	Scott Sanders, Deputy Commissioner of Systems Information and Analysis (25%)
Project Manager	Manages day-to-day operations of contractor resources in keeping with the project plan and budget, and in keeping with the project's commitments. Ensures that needs of all participating agencies are met. Maintains issue lists, manages quality control, ensures product and service delivery. Also acts as a Steering Committee and Project Team member and organizes all Steering Committee and Project Team meetings.	Contractor	TBD, (100%)
Business Analyst	Conducts analysis of source systems and agency business rules to create comprehensive documentation of requirements for the federated data system. Serves as a translator between business owners and development staff.	Contractor	TBD, (100%)
Technical Lead	Oversees technical development of the federated data system and works with agency technology staff as needed to ensure necessary technical measures are in place to allow full participation in the federated data system.	Contractor	TBD, (100%)

Role	Responsibility	Agency	Assigned Person
Agency Data Analyst	Provides agency level insight into data elements, data collection, and data policies.	IDOE	Dan Scott, Accountability Analyst (10%)
Agency Data Analyst	Provides agency level insight into data elements, data collection, and data policies.	DWD	Tim Zimmer, Data Analyst (10%)
Agency Data Lead	Provides comprehensive understanding of agency level data and ensures that all necessary agency data is available to the federated system.	IDOE	Mike Bottorff, Data Quality and Warehousing Manager (20%)
Agency Technology Advisor	Oversees technology for the IDOE including the systems that comprise the current SLDS. Aligns agency's technical resources to ensure that source systems are modified and enhanced as needed to contribute to the federated system.	IDOE	John Keller, Assistant Superintendent for Technology (10%)
Agency Technical Lead	Manages agency software development efforts.	IDOE	Debbie Dailey, Director of Application Development (10%)
Agency Technical Lead	Manages agency software development efforts.	DWD	Vicki Seegert, Director of Technology (10%)
Agency Database Administrator	Manages Agency Databases	IDOE	Rick Hoffman, DBA (10%)
Agency Data Warehouse Architect	Manages Agency Databases	CHE	Nick Buchanan (10%)
Agency Database Administrator	Manages Agency Databases	DWD	Lori Wasson (10%)
Agency Infrastructure Management	Ensures agency infrastructure supports existing systems, new initiatives. Secures agency systems.	IDOE	Gary Grist (10%)
Agency Project Manager	Works with Lead Project manager to ensure that agency efforts and dependencies for the project are completed on time.	IDOE	Sharon Land (10%)

Role	Responsibility	Agency	Assigned Person
Agency Business Intelligence Developer	Manages Agency Databases	IDOE	Brandon Barker (10%)
Agency Data Warehouse Architect	Responsible for the overall design and expansion of an agency's data warehouse	IDOE	TBD (10%)

Project Director

Jon Gubera will act as the project director for the project. He is the Chief Accountability Officer at the Indiana Department of Education and oversees IDOE's Office of Accountability. As Chief Accountability Officer, Jon oversees not only IDOE's accountability and policy functions, but also manages the continual expansion of its data warehouse and supervises all data collections and reporting functions of IDOE. Jon has extensive experience in K-12 education and policy and has also served as Associate Commissioner at Indiana's Commission for Higher Education. His area of expertise at CHE included college and career readiness. As such, Jon thoroughly understands Indiana's need to link data across K-12 education, higher education, and workforce sectors to drive better educational and career outcomes for Hoosiers. Jon has a Master's Degree in Government from Georgetown University.

Agency Leads

Jon Gubera, the project director, is also the agency lead for IDOE.

Molly Chamberlin is the agency lead for CHE where she serves as the Associate Commissioner for Research and Information. As the Associate Commissioner, Molly is responsible for overseeing the Commission's data collection, reporting, and warehousing initiatives. She is also responsible for organizing and utilizing data to facilitate policy and accountability decisions. Molly spent five years as Director of the Division of Educational Options at the Indiana Department of Education, where she was responsible for overseeing program evaluation and policy implementation for alternative education, charter schools, the McKinney-Vento homeless education program, and supplemental educational services tutoring programs. Molly later acted as the Department's Chief Accountability Officer, overseeing statewide accountability systems, IDOE's statewide longitudinal data systems (SLDS) project, data collection and reporting, data warehousing, data quality initiatives, and policy implementation related to data and accountability. Molly has a Ph.D. in Educational Psychology from Indiana University.

Scott Sanders is the agency lead for DWD where he serves as the Deputy Commissioner of Systems Information and Analysis overseeing all aspects of data collection, information technology and data management for the agency. He earned his MBA at Northwestern University's J.L. Kellogg Graduate School of Management, and received his undergraduate degree in accounting at Miami University.

Contracted Members of the Project Team

As described above, a project manager, business analyst and technical lead will be hired with grant funds to provide core project expertise for the completion of the federated data system. Each of these positions is described in more detail below

Project Manager

The project manager will supervise the day-to-day work associated with proposed project. The contractor hired for this role will track progress and report status, conduct senior management interviews, coordinate task assignments among the project team, manage the project scope, develop and review deliverables, and ensure conformance of the project work to grant and contract requirements. Other key elements of the project manager's work include facilitating the creation of the Governing Council, implementing project communications, and managing major stakeholders. The project manager will also serve as the primary source of project information for the steering team.

Business Analyst

The business analyst will lead development of the data dictionary, mapping table, and data quality/audit plan. The contractor hired for this role will also have primary responsibility for developing use cases, defining functional and technical requirements, and developing data modeling standards. The business analyst will also support development of the logical and physical system design will include facilitating focus groups and workshops, developing use cases, defining functional requirements, conducting cost analyses, evaluating business processes and workflows, testing features. The contractor hired for this role will also support development of the data dictionary and mapping table.

Technical Lead

The technical lead will take primary responsibility for developing security measures, implementing a security plan, creating report prototypes, defining technical requirements, and designing the logical and physical system. The contractor hired for this role will also directly support the creation of a data dictionary and mapping table, the data quality and audit plan, and data modeling standards. The technical lead will oversee system testing, including user acceptance and pilot tests.

Additional Contracted Resources and Vendors

As indicated in the budget narrative for each of the deliverables, contracted resources will play an important role in completing the design, development, implementation and training for the federated data system. The Indiana Department of Education will use Memoranda of Understanding to engage members of the project team from the participating agencies (CHE and DWD). Deliverables 4 and 5 in particular will require contracted services for developing the federated data system, designing and building reports, and developing training and user support materials.

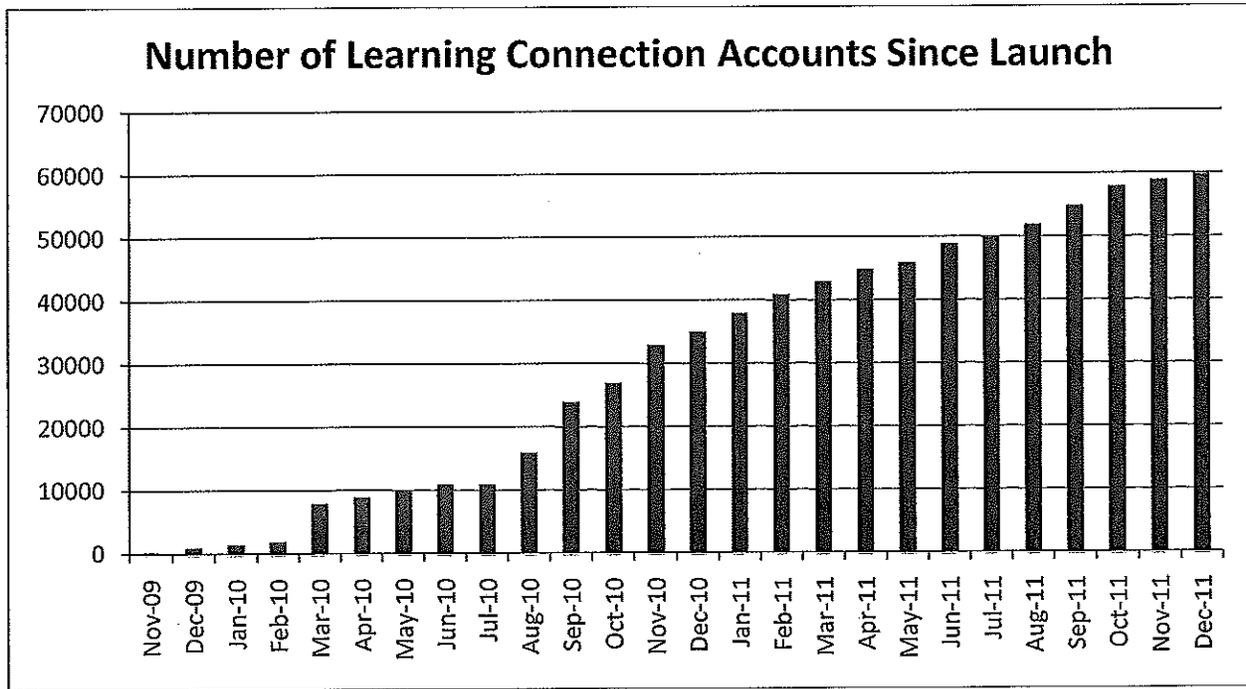
Other Attachment File(s)

* Mandatory Other Attachment Filename:

To add more "Other Attachment" attachments, please use the attachment buttons below.

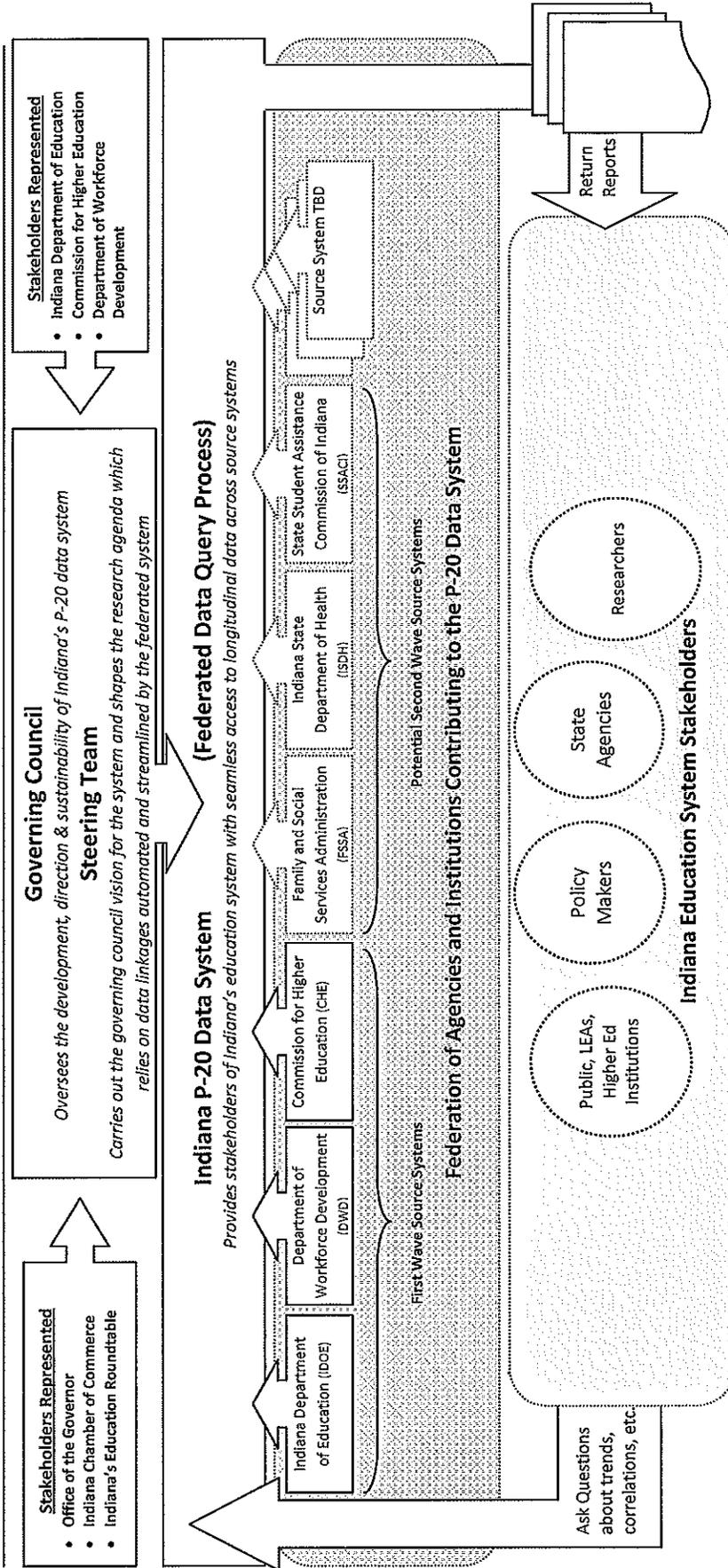
Appendix A – Optional Attachments

Number of Learning Connection Accounts Since Launch



Indiana Education and Workforce Data System Participant Diagram

Indiana Education and Workforce Data System



Relationship of Governing Council, Steering Team and Project Team for Indiana's Education and Workforce Data System

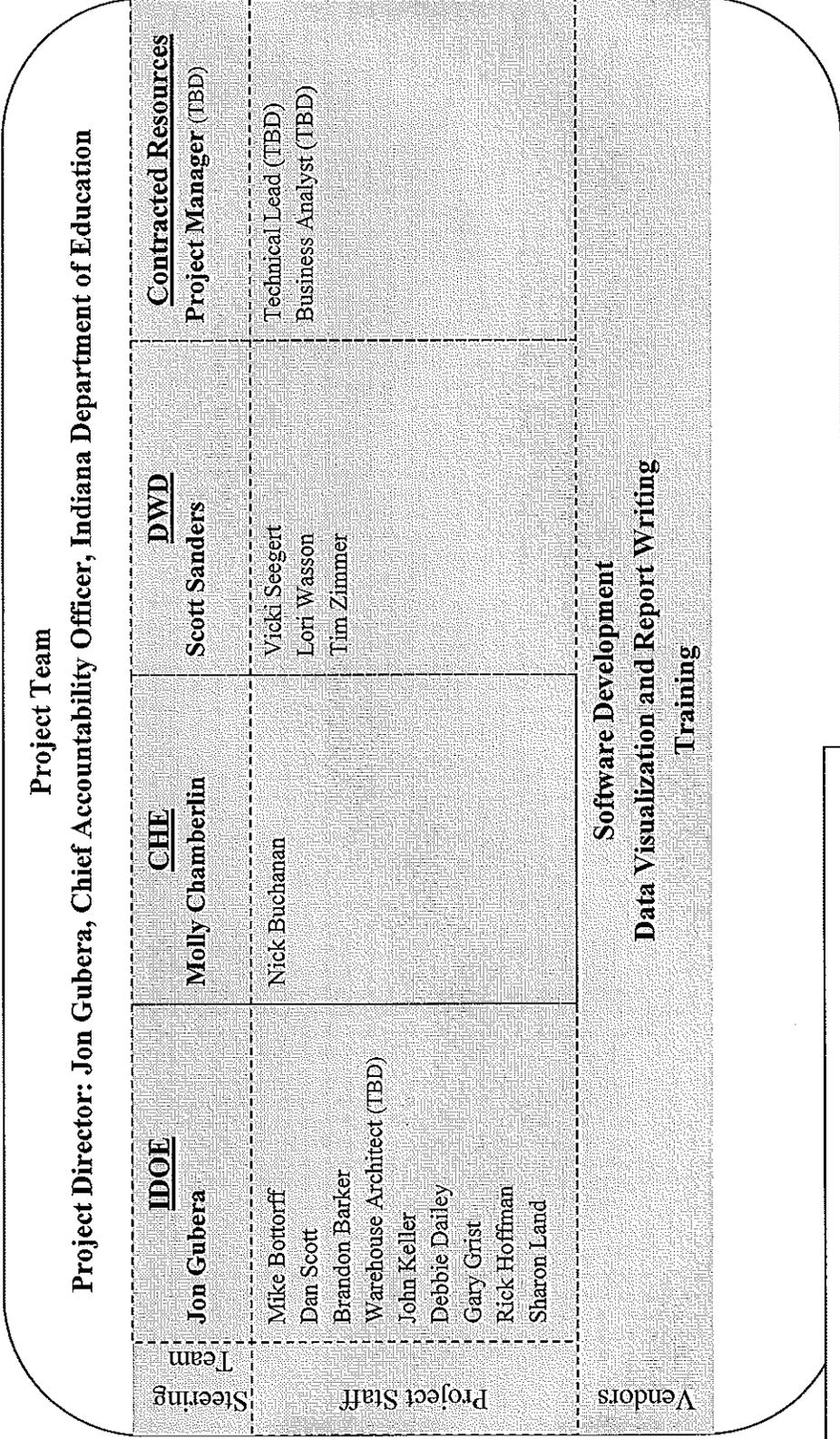
Governing Council
 Purpose: Oversees the Development, Direction & Sustainability of Indiana's Education and Workforce Data System
 Meetings: Quarterly/As Needed

Steering Team provides quarterly reports to the Governing Council and receives periodic feedback from the project team.

Steering Team
 Purpose: Provides project level guidance for the initial expansion effort from current SIDS to the federated data system.
 Focus: Clearing obstacles, ensuring project milestones are achieved, reporting progress to Governing Council.
 Composition: Subset of the Project Team. Includes Project Director, Agency Leads, Project Leads and IBRC
 Meetings: Monthly as needed

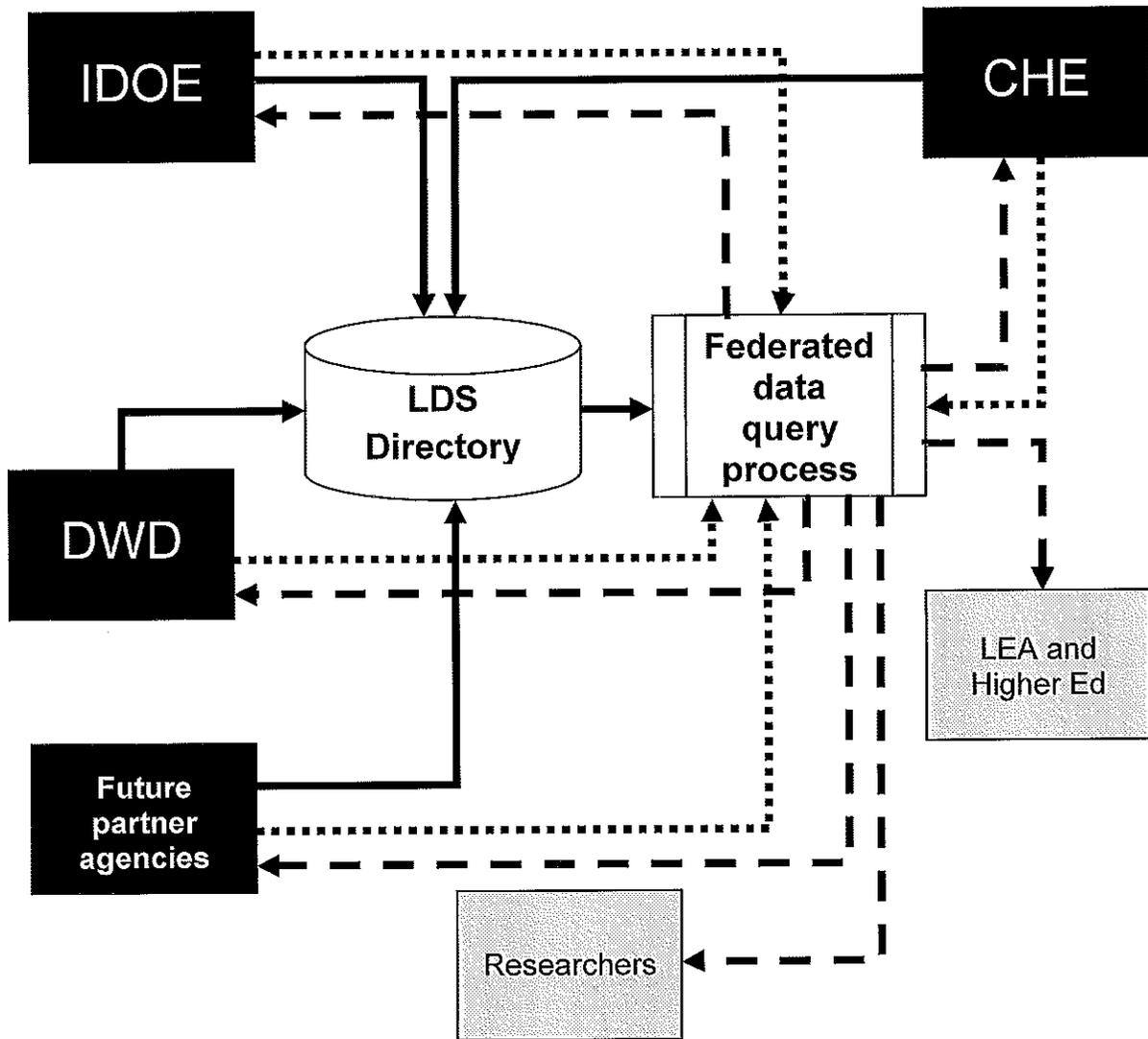
Project Team reports weekly progress to steering team and receives at least monthly feedback from the Steering Team.

Project Team Structure for Indiana's Education and Workforce Data System



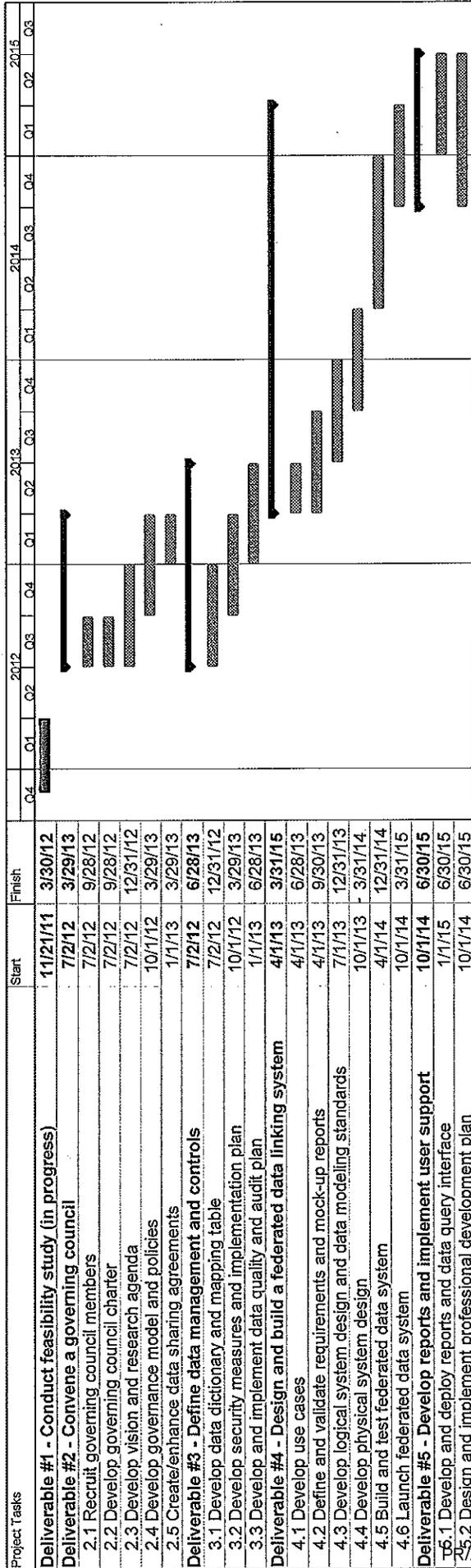
Project Team
 Purpose: To design, build, and deploy the Indiana Education and Workforce Data System.
 Composition: All individuals with specific responsibilities related to the development of the Indiana Education and Workforce Data System.
 Meetings: Weekly or as needed for key project personnel convened by the project manager for the purpose of reviewing progress on milestones, reporting on accomplishments, discussing matters relevant to project, and overcoming any short term obstacles.

Indiana's Federated Data System Conceptual Diagram



	Individual partner agencies keep metadata in the LDS Directory updated on a periodic basis.
	Individual partner agencies provide de-identified data to the Federated Data Query process on request via web service.
	Queries can be submitted by individual partner agencies, researchers, and LEAs and Higher Ed institutions. An authentication and authorization scheme is used to regulate levels of data access. Reports can be created from data queried to be consumed by educators, lawmakers, and the public.

Indiana Education and Workforce Data System Proposed Project Timeline



Award # R372A120027

Appendix B – Letters of Support



STATE OF INDIANA
OFFICE OF THE GOVERNOR
State House, Second Floor
Indianapolis, Indiana 46204

Mitchell E. Daniels, Jr.
Governor

December 12, 2011

The Honorable Tony Bennett
Superintendent of Public Instruction
State House, Room 228
200 West Washington St
Indianapolis, IN 46204

Dear Dr. Bennett:

I would like to extend my full support of the Indiana Department of Education's (IDOE) request for funding for the federal Statewide Longitudinal Data Systems (SLDS) grant. Data continues to play a large role in educational decision-making and creating a robust, fully functional P-20 data exchange and reporting system improves the capacity to make effective decisions.

Over time, Indiana's various educational and workforce departments: IDOE, the Indiana Commission for Higher Education (CHE) and the Indiana Department of Workforce Development (DWD), have each developed highly effective data collection and reporting systems that has fostered a greater understanding about the outcomes of Hoosiers at various times in their educational progress. To date, there has not yet formed a seamless and consistent cross-agency data sharing among the three agencies that would improve analyses and subsequent policies.

I am confident that Indiana's proposed "Education and Workforce Data System," will fill that void by providing a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions ultimately resulting in increased achievement and attainment statewide.

Sincerely,

Governor Mitch Daniels



INDIANA COMMISSION
for
HIGHER EDUCATION

December 2, 2011

Dr. Tony Bennett
State Superintendent
Indiana Department of Education
151 W. Ohio Street
Indianapolis, IN 46204

Dear Dr. Bennett:

It is with great pleasure that I write to express the full support of the Commission for Higher Education for the Indiana Department of Education's (IDOE) request for funding for the Statewide Longitudinal Data Systems (SLDS) grant (FY12). The Commission for Higher Education and IDOE, which have successfully partnered on many past collaborative efforts, have a shared vision for creating a robust, fully functional P-20 data exchange and reporting system that will improve the educational outcomes of Indiana students.

Indiana's proposed "Education and Workforce Data System," will provide a fully integrated data exchange and on-demand reporting capabilities utilizing linked data from the K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

The Commission will provide in-kind support to help implement the project. Through the collaborative efforts of the IDOE, the Commission for Higher Education, and other partner agencies, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

Sincerely,

Teresa Lubbers, Commissioner
Indiana Commission for Higher Education



INDIANA
WORKFORCE
DEVELOPMENT
AND ITS **WorkOne** CENTERS

December 15, 2011

Dr. Tony Bennett
Indiana Superintendent of Public Instruction
Indiana Department of Education
151 West Ohio Street
Indianapolis, IN 46204

Dear Dr. Bennett:

It is with pleasure that I write to express the support of the Indiana Department of Workforce Development (DWD) for the Indiana Department of Education's (IDOE) request for funding for the Statewide Longitudinal Data Systems (SLDS) grant (FY12). The DWD and IDOE have successfully partnered on many past collaborative efforts. We will work with you to build on the structure of the Indiana Workforce Intelligence System, along with SLDS, to create a robust, fully functional P-20 data exchange and reporting system that will improve the educational outcomes of Indiana students.

Indiana's proposed "Education and Workforce Data System," should provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

DWD will provide support to help implement the project. Through the collaborative efforts of the IDOE, DWD and other partner agencies, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

Sincerely,

(b)(6)

Mark W. Everson
Commissioner

Mitchell E. Daniels, Jr., *Governor*
Mark W. Everson, *Commissioner*

10 North Senate Avenue
Indianapolis, IN 46204-2277
www.workforce.IN.gov

Phone: 317.232.7670
Fax: 317.233.4793

An Economic Development Partner
PR/Award # R372A120027



Indiana State Board of Education

Room 225 State House
Indianapolis, Indiana 46204-2798

December 14, 2011

The Indiana State Board of Education is committed to using data as a key instrument in improving student achievement throughout Indiana. We enthusiastically support the enclosed grant application to further develop our Statewide Longitudinal Data System (SLDS).

The Indiana Department of Education (IDOE), Indiana Commission for Higher Education (CHE) and the Indiana Department of Workforce Development (DWD) have each worked fastidiously over the past decade to build robust data reporting systems that are utilized to analyze and improve the educational outcomes of Indiana students and career prospects for adults.

Recently, IDOE successfully partnered with CHE and DWD to begin building a functional P-20 data exchange and reporting system to further improve data analysis and thereby educational and workforce outcomes. The collaboration will enable us to answer important questions, such as: *What are the post secondary outcomes (both in degree and career attainment) for Hoosiers based on their high school diploma type – General, Core 40, or Honors - across educational and career sectors?*

Questions such as that may be answered by building a federated data system. Indiana's proposed "Education and Workforce Data System," will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

The development and integration of a P-20 data system is of highest priority to the Indiana State Board of Education and we appreciate your consideration of this application.

Sincerely,

(b)(6)

on behalf of

State Board Administrator

The Members of the Indiana State Board of Education

Dr. Tony Bennett
Daniel J. Elsener
Sarah O'Brien

Jo Blacketer
Michael Pettibone
Neil Pickett

James Edwards
Vicki Snyder

David Shane
Tony Walker

INDIANA'S EDUCATION ROUNDTABLE

December 5, 2011

Dan Clark, Ph.D.
Executive Director
Indiana Education Roundtable
150 W. Ohio St.
Indianapolis, IN 46204

Dear Dr. Bennett:

It is with great pleasure that I write to express the full support of the Indiana Education Roundtable for the Indiana Department of Education's (IDOE) request for funding for the Statewide Longitudinal Data Systems (SLDS) grant (FY12). The Indiana Education Roundtable and IDOE, which have successfully partnered on many past collaborative efforts, have a shared vision for creating a robust, fully functional P-20 data exchange and reporting system that will improve the educational outcomes of Indiana students.

Indiana's proposed "Education and Workforce Data System," will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

The Indiana Education Roundtable will provide support to help implement the project. Through the collaborative efforts of the IDOE, Indiana Education Roundtable and other partner agencies, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

Sincerely,

(b)(6)

Daniel Lee Clark, Ph.D.
Executive Director
Indiana Education Roundtable

Indiana Chamber

The Voice of
Indiana Business.®

Kevin M. Brinegar
President

December 14, 2011

Dr. Tony Bennett
Superintendent of Public Instruction
Room 229 State House
Indianapolis, IN 46204

Dear Dr. Bennett:

TONY

It is my pleasure to express our enthusiastic support for the Indiana Department of Education's (IDOE) proposal under the Statewide Longitudinal Data Systems (SLDS) grant (FY12). The Indiana Chamber of Commerce has highlighted the critical importance of this work in several recent reports. Most notably, it was a key component of our January 2009 report, *Recommended Policies and Practices for Advancing Indiana's System of Adult Education and Workforce Training*; it is part of our board-adopted policies covering both k-12 education and higher education; and it will be a prominent component of our forthcoming report, *Indiana Vision 2025*, which focuses substantially on the future of our state's education system and was recently adopted by our board of directors.

Consistent with each of these reports, Indiana's proposed "Education and Workforce Data System" will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens. An integrated data system, as proposed by IDOE, is critically important to the performance-based reforms and accountability mechanisms that are being pursued at all levels of Indiana's education system.

In these and many other initiatives, we have appreciated the strong support of your administration; and we look forward our continuing collaboration on this important initiative. Through the collaborative efforts of the IDOE, the Indiana Chamber of Commerce and other partner agencies, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

Sincerely,

(b)(6)

Kevin Brinegar
President

c: Derek Redelman, Vice President
Education & Workforce Development Policy



KELLEY SCHOOL OF BUSINESS

INDIANA UNIVERSITY

Indiana Business Research Center

December 13, 2011

Dr. Tony Bennett, Superintendent of Public Instruction
Indiana Department of Education
151 West Ohio Street
Indianapolis, Indiana 46204

Dear Dr. Bennett:

I am pleased to offer the support of the Indiana Business Research Center (IBRC) for the Indiana Department of Education's (IDOE) application for a Statewide Longitudinal Data Systems (SLDS-FY12) grant.

As you know, the IBRC and IDOE, along with other state agencies, are collaborating partners in the Indiana Workforce Intelligence System (IWIS) initiative, which has developed a powerful longitudinal data system that provides an excellent foundation on which to build the robust P-20-W system envisioned in your application. The proposed Indiana Education and Workforce Data System will enable fully integrated data exchange between K-12, postsecondary education, and the workforce to support policymakers, educators, and other stakeholders in making informed decisions to advance Hoosiers' quality of life.

The IBRC stands ready to provide guidance and help with the design and implementation of the project. Through the collaborative efforts of the IDOE, IBRC and other partner agencies, I am confident that the proposed SLDS project will achieve the goal of a P-20-W data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement, attainment and life outcomes statewide.

Sincerely,



Jerry N. Conover, Ph.D., Director



**STATE OF INDIANA
HOUSE OF REPRESENTATIVES**

State Representative Robert W. Behning
State House Room 4-6
Indianapolis, IN 46204
website: www.in.gov/h91

COMMITTEES:
· Education, Chairman
Elections and Apportionment
Financial Institutions
Utilities & Energy

December 12, 2011

Representative Robert Behning
Indiana General Assembly, District 91
Chairman, House Committee on Education
200 West Washington St
Indianapolis, IN 46204

Dear Dr. Bennett:

It is with great pleasure that I write to express my full support of the Indiana Department of Education's (IDOE) request for funding for the federal Statewide Longitudinal Data Systems (SLDS) grant. Data continues to play a larger role in educational decision-making and creating a robust, fully functional P-20 data exchange and reporting system improves the capacity to make effective decisions.

Indiana's proposed "Education and Workforce Data System," will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

Through the collaborative efforts of the IDOE, the Indiana Commission for Higher Education and the Indiana Department of Workforce Development, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased student achievement and attainment statewide.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert W. Behning", written over a horizontal line.

Representative Robert Behning
Indiana General Assembly, District 91



State of Indiana

Senate

Senator Dennis K. Kruse
6704 County Road 31
Auburn, Indiana 46706
Residence (260) 925-0000
Constituent Line 1-800-382-9467
Senate (317) 232-9443
email s14@ai.org

Committees:
Education & Career Development, Chair
Agriculture & Natural Resources
Pensions & Labor
Utilities & Technology

December 12, 2011

Dr. Tony Bennett, Superintendent
Indiana Department of Education
200 W. Washington Street
Indianapolis, IN 46204

Dear Dr. Bennett:

It is with great pleasure that I write to express my full support of the Indiana Department of Education's (IDOE) request for funding for the federal Statewide Longitudinal Data Systems (SLDS) grant (FY12). Data continues to play a larger role in educational decision-making and creating a robust, fully functional P-20 data exchange and reporting system improves the capacity to make effective decisions.

Indiana's proposed "Education and Workforce Data System," will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

Through the collaborative efforts of the IDOE, the Indiana Commission for Higher Education and the Indiana Department of Workforce Development, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

Sincerely,

A handwritten signature in black ink that reads "Dennis K. Kruse".

Dennis K. Kruse
State Senator, District 14

DKK/gs

DISTRICT OFFICES

355 S. WASHINGTON STREET
DANVILLE, IN 46122
(317) 718-0404
(317) 718-0405 (FAX)

337 COLUMBIA ST.
LAFAYETTE, IN 47901
(765) 838-3930
(765) 838-3931 (FAX)

407 S. 6TH STREET
MITCHELL, IN 47446
(812) 849-9378
(812) 849-9769 (FAX)



Congress of the United States
House of Representatives
Washington, DC 20515

TODD ROKITA
4TH DISTRICT, INDIANA
COMMITTEE ON THE BUDGET
COMMITTEE ON HOUSE
ADMINISTRATION
COMMITTEE ON EDUCATION
AND THE WORKFORCE
ROKITA.HOUSE.GOV

December 13, 2011

Dr. Tony Bennett
Superintendent of Public Instruction
Indiana Department of Education
151 West Ohio Street
Indianapolis, Indiana 46204

Dear Dr. Bennett:

It is with great pleasure that I write to express my full support for the Indiana Department of Education's (IDOE) request for funding for the Statewide Longitudinal Data Systems (SLDS) grant (FY12). I share IDOE's vision for creating a robust, fully functional P-20 data exchange and reporting system that will improve the educational outcomes of Indiana students.

Indiana's proposed "Education and Workforce Data System," will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

Sincerely,

Todd Rokita
Member of Congress

TODD YOUNG
INDIANA'S 9TH DISTRICT
WASHINGTON, DC OFFICE
1721 LONGWORTH HOB
WASHINGTON, DC 20515
PHONE: (202) 225-5315
FAX: (202) 226-6866



COMMITTEE ON
ARMED SERVICES

COMMITTEE ON
THE BUDGET

Congress of the United States
House of Representatives

December 12, 2011

Washington, DC 20515

Dr. Tony Bennett
Superintendent of Public Instruction
Indiana Department of Education
151 West Ohio St.
Indianapolis, Indiana 46204

Dear Dr. Bennett:

I am writing to express my support for the State Longitudinal Data System (SLDS) grant proposal (FY12) as presented by the Indiana Department of Education (IDOE) to the US Department of Education Institute of Education Sciences (CFDA number 84.372). If awarded, the funds would be utilized to develop and implement a linked data system between the Indiana Department of Education, the Commission for Higher Education and the Department of Workforce Development. There is the potential for inclusion of the Family and Social Services Administration, the State Student Assistance Commission of Indiana and the Indiana Department of Health in the system as well.

Indiana's proposed "Education and Workforce Data System (EWDS)" will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce. The EWDS will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens.

The Indiana Commission for Higher Education and the Indiana Department of Workforce Development will provide support to help implement the project. Through the collaborative efforts of the IDOE and other partner agencies, I am confident that the proposed SLDS project will achieve the goal of a P-20 data system that supports informed decision making for all stakeholders, ultimately resulting in increased achievement and attainment statewide.

I ask that this request be given full and fair consideration, within applicable laws and regulations, for the Indiana Department of Education's the State Longitudinal Data System (SLDS) proposal. If I can provide you with any additional information, please contact my grants coordinator, Hal Turner at 812-336-3000. Thank you in advance for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Young".

Todd Young
Member of Congress

Ty/ht

DAN COATS
INDIANA

COMMITTEES:
APPROPRIATIONS
ENERGY AND NATURAL RESOURCES
SELECT INTELLIGENCE
JOINT ECONOMIC

United States Senate

WASHINGTON, DC 20510

December 14, 2011

Dr. Tony Bennett
Superintendent
Indiana Department of Education
151 West Ohio Street
Indianapolis, IN 46204

Dear Dr. Bennett:

Thank you for updating me on the activities of the Indiana Department of Education. I am heartened by your efforts to cultivate academic growth in the Hoosier State.

Indiana's proposed "Education and Workforce Data System" will provide a fully integrated data exchange between K-12, postsecondary education, and the workforce that will support policymakers, educators, and other stakeholders in making appropriate and timely decisions for the good of Indiana's citizens. Indeed, your leadership continues to provide Hoosier families with ample opportunity for a quality education. Whether it is recently improved iSTEP scores or the 4,000 families that will benefit from the Indiana Choice Scholarship, Indiana continues to be a national leader in education reform.

I appreciate the Department's continued efforts on the behalf of Indiana's residents and congratulate you on your success.

Sincerely,



Dan Coats
U.S. Senator

11035 BROADWAY
SUITE A
CROWN POINT, IN 46307
219-863-2595

101 MARTIN LUTHER KING, JR. BLVD
EVANSVILLE, IN 47708
812-465-6500

1300 SOUTH HARRISON STREET
SUITE 3161
FORT WAYNE, IN 46802
260-426-3151

1850 MARKET TOWER
10 WEST MARKET STREET
INDIANAPOLIS, IN 46204
317-564-0750

2 EAST McCLAIN AVENUE
SUITE 2-A
SCOTTSBURG, IN 47170
812-754-0520

493 RUSSELL SENATE BUILDING
WASHINGTON, DC 20510
202-224-5623

PR/Award # R372A120027

RICHARD G. LUGAR
INDIANA

306 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
202-224-4814
<http://lugar.senate.gov>

COMMITTEES:
FOREIGN RELATIONS, RANKING MEMBER
AGRICULTURE, NUTRITION, AND FORESTRY

United States Senate

WASHINGTON, DC 20510-1401

December 12, 2011

Dr. Tony Bennett, Superintendent
Indiana Department of Education
151 West Ohio Street
Indianapolis, Indiana 46204

Dear Dr. Bennett:

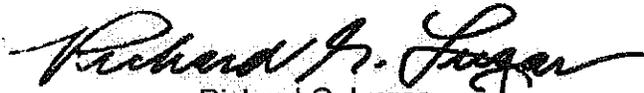
I am writing on behalf of the application that the Indiana Department of Education has developed with the Indiana Department of Workforce Development and the Indiana Commission for Higher Education to create an integrated and interactive longitudinal data system to serve policymaking, program evaluation and research.

I am supportive of the creation of this system and your efforts to advance the long-term data collection and use of these data resources to guide the important education and workforce policies that Indiana faces in the years ahead. These data resources can assist Indiana in an ongoing, targeted effort to enhance the current and future competitiveness of U.S. business in the global economy by having educational and workforce policy development "attune" themselves to the Hoosier student and employee.

I am pleased to see the careful consideration for confidentiality that underpins the development of this data proposed in this longitudinal data system. I believe this effort will provide very useful data that can assist future educators and decision makers with better information to guide allocation of resources.

Thank you for this opportunity to communicate with you. I would appreciate learning of your final decisions on this application.

Sincerely,



Richard G. Lugar
United States Senator

RGL/lar

MICHAEL R. PENCE
SIXTH DISTRICT, INDIANA

COMMITTEES:
FOREIGN AFFAIRS
SUBCOMMITTEE:
MIDDLE EAST AND SOUTH ASIA
VICE-CHAIRMAN
JUDICIARY
SUBCOMMITTEE:
CONSTITUTION
VICE-CHAIRMAN
SUBCOMMITTEE:
INTELLECTUAL PROPERTY, COMPETITION,
AND THE INTERNET

Congress of the United States
House of Representatives
Washington, DC 20515-1406

WASHINGTON OFFICE:
100 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3021
FAX: (202) 225-3382

DISTRICT OFFICES:
1134 MERIDIAN PLAZA 107 WEST CHARLES STREET
ANDERSON, IN 46016 MUNCIE, IN 47305
(765) 840-2919 (765) 747-5586
FAX: (765) 840-2922 FAX: (765) 747-5586

50 NORTH 5TH STREET
RICHMOND, IN 47374
(765) 962-2883
FAX: (765) 962-3225

December 12, 2011

U. S. Department of Education
National Center for Education Statistics
1990 K Street, NW
Washington, DC 30006

Re: CFDA #84.372A

Dear Sir or Madam:

Attached is supporting documentation in connection with an application for funding under the State Longitudinal Data System grant program, submitted by the Indiana Department of Education.

I would respectfully request that you give the Indiana Department of Education's application for funding every appropriate consideration. You may direct any response or questions to my Deputy District Director, Kim Bennett, at 107 W. Charles St., Muncie, IN 47305, or via e-mail at kiml.bennett@mail.house.gov.

Thank you for your kind consideration of this most important matter.

Sincerely,



Mike Pence
Member of Congress
Sixth District, Indiana

kb

Enc.



FOUNDED 1948

Independent Colleges of Indiana, Inc.

3135 North Meridian Street Indianapolis, Indiana 46208-4717
(317) 236-6090 (317) 236-6086 fax www.icindiana.org

Ancilla College

Anderson University

Bethel College

Butler University

Calumet College
of St. Joseph

DePauw University

Earlham College

Franklin College

Goshen College

Grace College

Hanover College

Holy Cross College

Huntington University

Indiana Tech

Indiana Wesleyan
University

Manchester College

Marian University

Martin University

Oakland City University

Rose-Hulman Institute
of Technology

Saint Joseph's College

Saint Mary-of-the-Woods
College

Saint Mary's College

Taylor University

Trine University

University of Evansville

University of Indianapolis

University of Notre Dame

University of Saint Francis

Valparaiso University

Wabash College

December 12, 2011

Dr. Tate Gould
Institute of Education Services
National Center for Education Statistics
1990 K Street, NW, Room 9023
Washington, D.C. 20006

Dear Dr. Gould,

As the Independent Colleges of Indiana (ICI), the collective voice of our state's 31 regionally- accredited, non-profit colleges and universities, we support the Indiana Department of Education's application for the 2012 Statewide Longitudinal Data Systems Grant from the Institute of Education Services. Indiana has a long history of collecting and using such data at the postsecondary level to inform education policy and to address a wide variety of accountability and performance initiatives. For fifteen years now, ICI has voluntarily participated in this effort by collecting and using data on behalf of our members for retention and persistence tracking, high school feedback reports, and IPEDS federal reporting requirements. We have also participated in ad hoc data sharing projects with Indiana's Commission for Higher Education, as well as provided an annual de-identified student data file.

Our past cooperation at the post-secondary level provides an excellent foundation not only to enhance our relationship with the state's public sector of higher education but also to establish equally productive linkages to the K-12 sector. Such cooperation provides a more robust and thorough data system in which to conduct research and analysis, with the goal of improving student retention and success---secondary through postsecondary---for the improvement of Indiana's economy and society.

Sincerely,

Richard L. Ludwick, JD, DED
President and CEO



December 5, 2011

Dr. Tony Bennett
State Superintendent
Indiana Department of Education
151 W. Ohio Street
Indianapolis, IN 46204

Dear Dr. Bennett,

I am writing this letter to strongly support the Indiana Department of Education's (IDOE) application for funding for the Statewide Longitudinal Data Systems FY12 grant competition. The Center for Evaluation and Education Policy (CEEP) served as evaluators and technical assistance providers for IDOE's previous SLDS project.

The new application proposes to take the accomplishments of the first funding cycle and extend them to encompass postsecondary education and workforce development. Having an integrated data reporting system that combines P-20 education data with labor and workforce data will greatly facilitate the state's ability to make empirically based education, training, and economic development decisions.

During the previous project, we were impressed by the ability of IDOE staff to coordinate resources across the state's numerous K-12 data systems. Many skeptics thought these data systems were too complex to coordinate in any useful fashion, yet the IDOE team quickly implemented plans that indeed produced an integrated system. For this reason, my colleagues and I have full confidence in IDOE's ability to work with its partners and produce the proposed integrated data system.

Sincerely,

(b)(6)

Jonathan Plucker, Ph.D.
Director, Center for Evaluation and Education Policy
Professor of Educational Psychology and Cognitive Science



INDIANA UNIVERSITY

1900 E. Tenth Street Bloomington, Indiana 47406-7512 (812) 855-4438 <http://ceep.indiana.edu>

PR/Award # R372A120027

Page e61

Appendix C – Resumes of Key Personnel

Jon Christien Gubera

EDUCATION

Georgetown University , Washington, DC, <i>Master of Arts: Government</i>	2008
California State University – Dominguez Hills , Carson, CA, <i>Teacher Education</i>	2002
Knox College , Galesburg, IL, <i>Bachelor of Arts: Political Science and Philosophy</i>	1995

ADMINISTRATIVE EXPERIENCE

Indiana Department of Education (IDOE), Indianapolis, IN Present

Chief Accountability Officer

- Finalize and Implement the state's new "A-F" accountability model for schools and districts
- Manage the state's K-12 team for data collections, warehouse, and analysis
- Advise the State Superintendent for Public Instruction
- Work with the state legislature, state school board of education and other state policymakers
- Convene working groups of principals on accountability and data policies
- Communicate the new "A-F" model and other data and policy related topics throughout the state
- Member of the state's team in the Partnership for Assessment of Readiness for College and Careers (PARCC)

Indiana Commission for Higher Education (ICHE), Indianapolis, IN 2010-2011

Associate Commissioner for Policy and Planning

- Developed recommendations for ICHE & the IN General Assembly for new educational policies, including:
 - Creation and implementation of several college and career ready policies
 - Overhaul of the state's student financial aid program
 - Refined the state's performance funding formula for public universities
- Advised the Indiana Commissioner for Higher Education
- Worked with the state legislature, ICHE board members and other state policymakers
- Managed the monthly commission meetings
- Member of the state's team in the Partnership for Assessment of Readiness for College and Careers (PARCC)

Indiana Department of Education (IDOE), Indianapolis, IN 2009-2010

State Director of Advanced Placement (AP)

- Implemented a data-driven plan to increase access and success in AP courses
 - Led Indiana to the second highest one-year growth in the US on College Board's E&E measure for 2010
 - Developed a new data-driven school-level AP metric for Indiana Schools called "Access and Success"
 - Collaborated on the passage of the landmark AP legislation: House Enrolled Act 1135 (2010)
 - Fostered the highest 10th grade participation on the PSAT in state history in 2009
- Conducted statewide workshops with principals and superintendents on *Digging Into the Data*
- Advised the State Superintendent of Public Instruction
- Collaborated with the Indiana Commission for Higher Education on dual credit policies
- Served on the National Math and Science Initiative successful grant-writing team
- Negotiated state contracts with the *College Board* for PSAT, SAT and AP testing

Pacific Hills School, Grades 6 – 12, Los Angeles, CA 2001-2007

Dean of Academics & Social Studies Department Chair

TEACHING EXPERIENCE

Pacific Hills School, Grades 6 – 12, Los Angeles, CA 2001-2007

Bishop Montgomery High School, Grades 9-12, Torrance, CA 1999-2001

Saint Anthony's Elementary School, Grades K-8, Long Beach, CA 1998-1999

Dr. Martin Luther King, Jr. Middle School Magnet, Grade 6, Kansas City, MO 1995-1996

NATIONAL and STATE ADVISORY GROUPS

<i>Partnership for Assessment of College and Career Readiness (PARCC)</i>	2011
<i>National Expert for State Level Policies for the Advanced Placement Program</i>	2011
<i>ACT State Advisory Council for Indiana</i>	2010-2011
<i>College Board Advisory Council for Indiana</i>	2009-2011

PUBLICATIONS and NATIONAL / STATE PRESENTATIONS

<i>Indiana's New Accountability Model: A-F</i>	
Presentations for the Indiana State Board of Education	2011
Presentation at the Indiana Association of School Principals Annual Conference	2011
Presentation at the Catholic Education Annual Summit	2011
Presentation at various locations throughout the Indiana	2011
<i>Graduation Rates in Marion County</i>	2011
Presentation at the Indianapolis Chamber of Commerce's Education Meeting	
<i>Expanding and Accelerating High School Student's Opportunities to Earn College Credit</i>	2011
Presentation at the national annual meeting for the Foundation for Excellence in Education	
<i>The 2nd Annual AP Recognition Luncheon</i>	2010
Hosted the school awards ceremony based on the new AP metric	
<i>AP Policy Developments Affecting Indiana Schools</i>	2010
Presentation before Indiana's Dual Credit Advisory Committee	
<i>What H.B. 1135 Means for Indiana Students and Public Colleges</i>	2010
Presentation at state conference for High School to College Policy Actions	
<i>Increasing AP Programs in Schools Serving Primarily First Generation Students</i>	2010
Presentation – "Advancing Academic Excellence" - state conference	
<i>Taking Early Action to Foster College Success</i>	2010
Presentation – "Indiana Conference on Learning" - state conference	
<i>Indiana Department of Education: Advanced Placement Action Plan</i>	2009
Presentation - Center of Excellence in Leadership of Learning national conference	
<i>What's All the Beef About the Pork? The Economic and Political Significance of Earmarks</i>	2009
Paper Presented - Midwest Political Science Association National Conference	
<i>Observations on the Influence of Joseph Addison's Play, "Cato, a Tragedy," on the Character and Leadership of George Washington: National Endowment for the Humanities</i>	2005

FELLOWSHIPS

American Bar Association , Chicago, IL	2007
The Federal Judicial Center and The American Bar Association - <i>Great Trials in U.S. History</i>	
Boston University , Boston, MA	2005
The National Endowment for the Humanities - <i>George Washington and His Legacy</i>	

AWARDS & RECOGNITIONS

<i>National Scholars Honor Society</i>	2008
<i>Educational Leadership and Service</i> – Pacific Hills School	2007
<i>Community Service Award</i> - Los Angeles Country Registrar-Recorder's Office	2004
<i>Conference Player of the Year</i> - Midwest Collegiate Volleyball Association	1995

OTHER SKILLS

Quantitative Methods proficiency in SPSS
Microsoft Office proficient
Conversant French

MARY A. (MOLLY) CHAMBERLIN

(b)(6)

EDUCATION

Ph.D., Educational Psychology, March 2009
M.S., Educational Psychology, December 2004
Indiana University, Bloomington, IN
B.A., Liberal Arts, *Magna Cum Laude*, May 1997
Middlebury College, Middlebury, VT

WORK EXPERIENCE

Associate Commissioner for Research & Information July 2011 to present
Indiana Commission for Higher Education

- Oversee statewide data collections from public institutions of higher education
- Oversee implementation of data warehousing system and report creation
- Identify ways to improve data quality, data usage, and efficiency of data collection
- Utilize data to inform policy and programmatic decision-making
- Utilize data to create and implement accountability metrics for higher education

Chief Accountability Officer & Director, Office of Data Analysis, Collection, and Reporting February 2009 to July 2011
Indiana Department of Education, Indianapolis, IN

- Oversaw statewide accountability initiatives for public and accredited non-public schools
- Was responsible for initial creation of new statewide A-F accountability system
- Presented information to educators and the public on state and federal accountability systems
- Developed, communicated, and implemented strategic plan and objectives for Division initiatives related to data quality
- Oversaw the development and implementation of policies related to data access, reporting, and usage
- Oversaw, coordinated, and reviewed data analysis projects
- Oversaw, coordinated, and reviewed the implementation of an enterprise data warehouse
- Coordinated Department-wide research and evaluation projects
- Collaborated with individuals within and outside of the Department to enhance efficacy in data usage and promote program evaluation
- Directed the implementation of a statewide longitudinal data systems project

Director, Office of Student Learning Choices March 2004 to February 2009
Indiana Department of Education, Indianapolis, IN

- Oversaw and managed four program areas, including Supplemental Educational Services (SES), Public Charter Schools Program (PCSP), Alternative Education, and McKinney-Vento Homeless
- Made, analyzed, and interpreted policy for all program areas and special projects
- Conducted data analysis and disseminated evaluations related to effectiveness of all program areas
- Created and led evaluations of Supplemental Educational Services providers, including data compilation, analysis, interpretation, and reporting
- Provided technical assistance to schools and districts in implementation of effective practices
- Wrote grants for related federal programs (obtained over \$27 million in federal funds for the Public Charter Schools Program and Statewide Longitudinal Data Systems (SLDS) grant)

Assistant to the Legislative Director

Indiana Department of Education, Indianapolis, IN

January 2004 to March 2004

- Conducted and disseminated research to state legislators on K-12 policy issues
- Provided policy analysis for existing and new legislation

Research Associate

Indiana Education Policy Center, Bloomington, IN

January 2003 to January 2004

- Co-created and assisted in conduction of first ever Public Opinion Survey of Education in Indiana
- Conducted and disseminated research and evaluation on K-12 policy issues
- Compiled policy briefs for publication on a variety of K-12 education issues

ESL Instructor, Assistant Trainer

Berlitz Language Center, Indianapolis, IN

September 2000 to December 2002

- Taught ESL courses to students of various ages and nationalities
- Assisted in training new and current instructors in teaching methods
- Evaluated existing programming and assisted in creation of new programming

Life and Annuities Specialist

Bisys Insurance Services, Inc., Indianapolis, IN

January 2000 to October 2000

- Provided quotes and product knowledge to life insurance and annuity agents

Trainer/ESL Instructor

Nova Intercultural Institute, Tokyo, Japan

September 1997 to December 1999

- Managed schools of over 20 people
- Conducted on-the-job training and follow-up training for new teachers throughout the Tokyo area
- Evaluated effectiveness of teachers and conducted training accordingly
- Taught ESL courses to Japanese students of various ages and language abilities

PRESENTATIONS AND PUBLICATIONS

Chamberlin, M. & Plucker, J. (2008). P-16 education: Where are we going? Where have we been? *Phi Delta Kappan* (89)7, March 2008.

Chamberlin, M. & Clement, K. (2008). *Indiana's alternative education profile project*. Presented at August 2008 Oregon Superintendents Summer Institute, Portland, OR.

Foxx, S. & Chamberlin, M. (2008). *Indiana's profile project*. Presented at October 2007 National Dropout Prevention Conference, Louisville, KY.

Chamberlin, M. & Young, R. (2006). *Teaching along the blended learning continuum*. Paper presented at August 2006 Annual Conference on Distance Teaching and Learning, Madison, WI.

Plucker, J., Chamberlin, M., Zapf, J., & Simmons, A. (2004). *2003 public opinion survey on education in Indiana*. Published by the Center for Evaluation and Education Policy, January 2004.

Chamberlin, M. & Eckes, S. (2003). Title IX and women's athletic opportunities in Indiana colleges and universities. *Education Policy Briefs*, (1)6, Winter 2003.

Chamberlin, M., Plucker, J., & Kearns, A. (2003). Highly qualified teachers in Indiana. *Education Policy Briefs*, 1(4), Winter 2003.

Plucker, J., Jones, M., & Chamberlin, M. (2003). ISTEPing in the right direction? An analysis of fall vs. spring testing. *Education Policy Briefs*, 1(3), Winter 2003.

Chamberlin, M. & Plucker, J. (2003). The four-day school week. *Education Policy Briefs*, 1(2), Winter 2003.

HONORS AND RELEVANT SKILLS

Bell Ringer Award, awarded by Indiana State Superintendent of Public Instruction, 2008

Berlitz Teacher of the Year, Akron District, 2001

Moderately proficient in German and Russian; beginner's knowledge of Japanese

Proficient in SPSS and Microsoft Office

Michael S. Bottorff – MBA, PMP

(b)(6)

Overview

Michael is an information technology strategic planning, management, and implementation expert. His extensive background includes gathering and evaluating data, analyzing enterprise IT performance and providing actionable recommendations, notably to chief information officers and other executive decision makers for more than thirty public sector organizations across the country. Some of his most relevant projects include IT strategic plans for two local education associations (LEAs) – South Whidbey School District (WA) and Tempe Union High School District (AZ) – and the Seattle Community College District (WA), an IT resources survey for the (State of) Washington Higher Education Coordinating Board, a technology qualifications report and business case for the Seattle and King County (WA) Department of Public Health's emergency medical services data quality and integration initiative, the eCityGov Alliance's (WA) multi-city permit management system replacement feasibility study, enterprise software procurements for the State of Alaska and the City of Boise (ID), and IT strategic plans for Orange County (CA) and Will County (IL).

Michael's work and guidance has enabled various government agencies to identify IT strengths and weaknesses, create detailed IT spending plans, conduct return on investment analyses, define key performance indicators, and select best-fit technology solutions. He has developed reports containing comprehensive budget and financial reviews, labor and inventory cost analyses, governance assessments, multi-year capital and operational budgets, resource projections, project portfolios, and expenditure timelines. Michael's analytical and consulting efforts have directly or indirectly influenced state legislation and policy, LEA initiatives, enterprise budgets, major capital investments, broad-based cost reduction initiatives, and staffing reorganizations.

Michael earned a Bachelor of Arts in English Education from Purdue University (IN) and a Masters in Business Administration at the University of Washington. He is an accomplished facilitator and presenter, and is a certified Project Management Professional (PMP). During his tenure as an IT consultant, an independent film and television producer, and a small business advisor, Michael managed more than a hundred distinct projects. He also spent six years teaching high school English, humanities, and world studies; gaining broad classroom experience by working in a variety of urban, suburban, charter, outperforming and underperforming schools. Michael currently serves on the technology planning committee for Hamilton Southeastern Schools in Fishers, IN (an LEA).

Education and Certifications

- Certified Project Management Professional C
- Master of Business Administration, chartered financial analyst track – University of Washington M
- Bachelor of Arts in English Education, educational technology endorsement – Purdue University B

Experience

Data Quality and Warehouse Manager – Indiana Department of Education, Indianapolis, IN 2011 – Present

- Oversees design, development, and maintenance of P-20 longitudinal statewide educational data system
- Develops, maintains, and updates business rules and logic for the data warehouse
- Manages workflow and business processes of the data warehouse team
- Ensures quality and accuracy of stored data
- Collaborates with data collections and information technology staff to improve efficiency and effectiveness of data analysis and reporting, including development of meaningful dashboards
- Analyzes data and creates associated reports in support of data driven decision making
- Manages data sharing agreements with state agencies and external partners

Senior Consultant – Pacific Technologies, Inc., Bellevue, WA 2007 – 2011

PTI specializes in IT management consulting for the public sector. PTI's major service lines consist of IT strategic planning, enterprise software procurement assistance, feasibility study/alternatives analysis, organizational analysis and software implementation oversight.

Marketing

- Delivered PowerPoint-based marketing presentations to chief information officers and other executive decision makers across the country; achieved 100% sales presentation success rate for appropriately scoped and budgeted projects within target market

- Identified more than 90% of company's prospects by reviewing a subscription database service (Onvia) daily; developed a Word-based prospect summary template, including key information requirements and guidelines for determining the viability of potential opportunities
- Generated additional revenue through subsequent consulting work with 33% of first-time clients

Experience (continued)

Data/Information Gathering

- Determined strengths and weaknesses of clients' existing IT environment through interviews and focus groups
- Used Excel-based templates to collect comprehensive quantitative data about clients' IT spending, labor effort, and equipment inventory
- Collaborated with clients' subject matter experts to validate and ensure data accuracy
- Reviewed client documentation, including: strategic plans, financial reports, key performance indicators, IT service level agreements, organizational charts, IT service backlogs, network diagrams, IT cost allocation models, and ongoing project information
- Completed more than 100 desk-side application reviews with power users to evaluate business software

Strategy and Analysis

- Identified clients' key business drivers and strategic priorities for information technology
- Utilized Visio to develop business function models depicting clients' core service offerings and to create ideal application architectures illustrating the most efficient approach to automating business functions and services
- Evaluated clients' IT asset portfolios using a Excel-based tool containing six worksheets and as many as 100,000 data points
- Assessed clients' IT staffing levels and labor allocation across more than 50 discrete IT support categories
- Crafted client recommendations designed to optimize infrastructure performance, reduce equipment costs, increase IT staff efficiency, replace out-of-date systems/technologies, and improve overall IT performance
- Ensured clients' smooth transition to new IT organization structures and service approaches by developing IT governance charters and service level agreements
- Defined long-term IT cost savings opportunities for various clients ranging from \$5M to \$71M
- Constructed mid- and long-range implementation plans, consisting of discrete IT projects, aligned with clients' existing technical environment and designed to realize organizational IT strategies and goals
 - Developed annualized implementation cost estimates for budgeting purposes
 - Created Project-based Gantt charts to depict estimated implementation timelines
- Identified opportunities for increasing operational efficiency using Visio-based business process maps

Enterprise Software System Procurement

- Facilitated procurements with implementation costs ranging from \$300K to \$12M
- Defined more than 1,000 software functional requirements, mostly targeted toward integrated financial and human resources management systems, for inclusion in clients' request for proposals (RFP)
- Wrote draft and final RFPs in compliance with clients' existing procurement rules and guidelines
- Developed Excel-based scoring tools and templates tailored to clients' defined evaluation criteria and weights
 - Enabled quantitative analysis of scores across proposals and evaluators
 - Provided guidelines and key considerations for scoring
 - Supported total cost of ownership analysis and value (cost-per-point) scoring approach
 - Allowed normalization of costs based on key proposal differences
- Moderated pre-proposal conferences via web meeting to respond to vendor questions
- Wrote demonstration scripts for finalist vendors – business-based scenarios that exercise each important function of the new systems
- Supported vendor contract negotiations

Internal Operations

- Completed more than 30 professional services projects, including management responsibilities on six of them
- Standardized, refined, and updated company's IT assessment and strategic planning project methodologies, training materials, and knowledge base
- Trained and mentored new employees

Mac Specialist / Business Sales Lead – Apple Computer, Inc., Bellevue, WA

2005 – 2006

- Consistently exceeded monthly sales performance targets, generating over \$1M in total sales
- Implemented retail and business customer marketing strategies
- Led business sales by dollar volume
- Trained and mentored new hires, specifically with regard to business sales strategies

Experience (continued)

Business Manager / Director of Operations – Dead Gentlemen Productions, Tacoma, WA **2002 – 2004**

- Drove marketing efforts for major products and associated merchandise, *The Gamers* and *Dead Camper Lake*, resulting in the sale of more than 10,000 total units
- Established and managed supply chain, inventory, and product distribution
 - Executed contracts with suppliers and negotiated two nationwide distribution agreements
 - Led design, development, and release of new company website, including an online store with featuring approximately a dozen products
 - Forecasted monthly and quarterly sales to support short and long-term financial planning
 - Analyzed inventory and sales trends to prevent stock-outs and leverage optimum order quantities
- Secured property and casualty insurance, local production permits, and location contracts for individual media projects as well as the entire organization, as appropriate
- Wrote, approved, and/or oversaw legal documents, including: operating agreements, non-disclosure agreements, and more than 100 temporary and permanent employment contracts
- Wrote business plans and arranged investment capital for new media and entertainment projects
- Developed and enhanced business relationships and partnerships

English Teacher – Tacoma School District, Tacoma, WA **2002 – 2007**

- Taught expository, persuasive, and research writing and presentation skills
- Facilitated innovative, student-led research projects about western philosophy and world cultures, earning a commendation from school principal for exemplary teaching approach
- Differentiated instruction for ninth and tenth grade pre-International Baccalaureate students integrated within a standard English class at Henry Foss High School
- Participated in leadership team for Tacoma School of the Arts, a charter school, which achieved reading and writing state standardized test passing rates of 95.3% and 99.3%, respectively
- Provided English class instruction to transitional bilingual students (English Language Learners), whose primary languages were Spanish or Russian, at Washington High School (Franklin Pierce School District 402)
- Incorporated technology into the classroom and teaching curriculum whenever possible, including PowerPoint-supported lectures, online teaching notes and quizzes, and internet research

Technical Skills and Knowledge

- Advanced – Microsoft Outlook, Word, Excel, and PowerPoint
- Intermediate – Microsoft Access, Project and Visio; Intuit Quicken and Quickbooks; WebEx; GoToMeeting; data warehouse development and design
- Basic – SQL; relational and dimensional data modeling techniques

Notable Awards

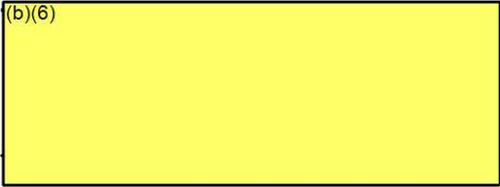
- MBA Capstone Simulation Champion
- Milgard Scholar (2x)
- Purdue Class of '37 Scholarship
- Purdue Concerto Competition Winner
- Sudler Award for the Arts Runner-up
- Polymnia Award for Poetry Honorable Mention
- Indiana State High School Math Competition Regional 1st Place Scholar

Professional Memberships and Other Associations

- Project Management Institute
- The Data Warehouse Institute
- Help Desk Institute
- Purdue University President's Council
- Purdue Alumni Association
- HSE S.P.O.R.T.S. volunteer
- HSE Schools Technology Committee

BRANDON BARKER

(b)(6)



OBJECTIVE

Seeking a challenging and stimulating work environment to demonstrate technological proficiency as well as continue to improve my communication, problem solving, and programming skills.

SKILLS

SQL Server, ETL, SSIS, IBM Cognos TM1, arcPlan Enterprise, Oracle Databases, MySQL Database Query Language, Java, Alfresco, PHP, ASP, CSS, XML, HTML, C++

SOFTWARE INVOLVEMENT

SSIS, Microsoft Management Studio, TOAD, Eclipse, Microsoft Server 2000, 2003, 2008, Cognos Planning, TM1 Architect, TM1 Web, TM1 Server

EDUCATION

Ball State University

July 2006

Bachelor of Science

Major: Computer Science

Focus: Information Systems

EXPERIENCE

BI Reporting Analyst | Department of Education

Indianapolis, IN

April 2011 – Current

Extract school, corporation, and student data from data warehouse

Import data from various sources into data warehouse

Maintain and develop current database architecture

Improve and support scheduled processes

Analyze and report using extracted data

Programmer Analyst E-Commerce | Zimmer Inc.

Warsaw, IN

November 2010 – April 2011

Develop utilizing Java for company website (www.zimmer.com)

Create templates using Alfresco for Web Content Management

Monitor website traffic and utilize Akamai Technology

Project Lead for team using IBM Cognos TM1 Financial Database

Transition previous support activities to workers overseas

24/7 on call support for site maintenance and also previous responsibilities

Programmer Analyst | Zimmer Inc

Warsaw, IN

March 2008 – April 2011

Develop and maintain IT Financial Database utilizing IBM Cognos TM1

Design and maintain custom applications using Oracle backend

Perform data cleansing and migration using SQL

Automate complex manual processes

Actively gather requirements from end users and management

Work directly with users when problems arise

Utilize SDLC lifecycle and best practices

24/7 on call support for IBM Cognos TM1 and arcPlan ZWCS systems

Calc Engine Analyst | Hewitt Associates

Lincolnshire, IL

September 2006 – March 2008

Read and understand analysis specifications and client requirements documentation

Write configuration, methodology, and technical documentation based on analysis

Configure pension calculations to meet the needs of clients' requirements

Test pension calculations by identifying test participants, creating automated test scripts and performing manual calculations

Research, debug, and evaluate issues

Manage a team of 3 overseas on multiple projects

Operational Improvement Analyst (Intern) | ADESA, Inc.

Carmel, IN

May 2006 – August 2006

Flow Chart Business Processes using Visio, iGrafx, Sigmaflow, and Websphere Business Modeler

Analyze and understand best practices using current ADESA "As-Is" processes

Interpret the Voice of the Customer into a functional process map

Software Developer (Student Intern) | LiveMercial, Inc.

Valparaiso, IN

August 2005 – May 2006

Develop web based project management software using MySQL, PHP, Java, CSS, and HTML

Work in an iterative SDLC model with a team of 5 individuals

Work for LiveMercial through a Ball State software development class

Information Technology Support | Ball State University

Muncie, IN

August 2004 – May 2005

Manage ITAC (Information Technology Assistance Center)

Answer all student/faculty computing questions

Set up and maintain 3 computer labs for use

Dan Scott

(b)(6)

Overview

Dan is a data analyst for the Indiana Department of Education (IDOE) and has served at the Department for the past three years. While at the IDOE Dan has served on a number of projects ranging from data collection, reporting, and analysis to analyzing the effectiveness of various programs to assisting in the creation of accountability models. He has played an instrumental in many of the recent education reforms including the recently passed voucher bill and the creation of new state accountability system.

Prior to joining IDOE, Dan served in numerous roles and capacities in campaign politics. During this time he served as data base manager and overall saw all micro-targeting efforts. Included in these roles he oversaw the expansion of the state data base, identified new components to add, and to create linkages to other data sources. Dan also served on the steering committee of the Statewide Voter Registration System (SVRS); which was created as a result of the federally mandated HAVA act. This steering committee was comprised of local county clerks, representatives from both major political parties, members of the Indiana Election Division, the Indiana Justice Department, Indiana Bureau of Motor Vehicles, Indiana Department of Health, and the Indiana Secretary of State's Office. The steering committee was overseen by former Secretary of State, and current Indiana Congressman, Todd Rokita. The committee was tasked with combining 92 individual county clerk voter registration databases into one, statewide, database and to provide voter linkages from the SVRS system to the databases for the Indiana Departments of Health, Justice, and Bureau of Motor Vehicles. The system was completed in 2006 and now serves as a model for the nation.

During his time working in campaign politics, Dan also oversaw several employees and coordinated weekly with representatives from each of Indiana's 92 counties. He also worked very closely with the Governor's Office receiving weekly updates on all major legislative proposals and worked on gathering support for the Governor's major initiatives. Dan left the campaign politics following his work on Governor Daniel's re-election campaign in 2008 at which point he joined newly elected State Superintendent Dr. Tony Bennett on his mission to reform the Indiana Department of Education and make it a model for education reform and success.

Education

- Dan attended Butler University (Indianapolis) from 2002-2005 and received a Bachelor of Liberal Arts degree in Political Science and History.

Experience

Data Analyst – Indiana Department of Education

2008-Present

- Responsible for providing data analysis for all IDOE programs and providing feedback on how to best allocate state resources in a more effective and efficient manner
- Collaborate and provide assistance across various IDOE teams including: school turnaround, policy, educator effectiveness, IT, special education, CTE, and charter schools
- Provide data analysis and reports for all major initiatives

- Assisted in the creation and continued improvement of the state and federal accountability systems; including playing a vital role in Indiana's NCLB waiver and creation of a new AMO
- Work with other state and community organizations to create new innovative programs and provide meaningful and innovative reforms to existing IDOE programs and collaborations

Voter File Coordinator – Indiana Republican State Committee

2006-2008

- Responsible for the database management of the Indiana voter file and identifying new data linkages to expand the scope of the voter file
- Developed and oversaw all micro-targeting efforts
- Helped create data-driven strategic plans to best allocate efforts and resources in order to meet the party objectives
- Coordinated with representatives in each of Indiana's 92 counties to ensure the most efficient and effective use of data reporting, collection, and utilization of the Indiana voter file
- Served on the Indiana Statewide Voter Registration System (SVRS) steering committee
- Coordinated and served on numerous presidential, federal, state, and city campaigns working directly with the candidates to create strategic plans based on research marketing analysis
- Received weekly legislative briefs and helped garner legislative and constituent support for all major initiatives and policies

Technical Skills and Knowledge

- Database Management
- Advanced – Microsoft Outlook, Word, Excel, and PowerPoint; Micro-targeting and Analysis
- Intermediate – Microsoft Access; Webex; Salesforce; Data warehouse development and expansion
- Basic – SQL

(b)(6)

Overview

John Keller currently serves as the Assistant Superintendent for Technology at the Indiana Department of Education. John has oversight for the agency's infrastructure, software development, media production, and efforts to improve student learning through the use of technology. John also is part of the Superintendent's cabinet providing technology and innovation insight and guidance to the agency's school reform initiatives.

John's experiences include project leadership in the design, development, and deployment of productivity tools for teachers, various teaching assignments including elementary, college, and graduate levels, scholarship including publications in journals and books, and service in state and national professional associations focused on the use of technology for student learning.

Education

B. S. magna cum laude in Elementary Education from Grace College, 1994.

M. S. in Education from Indiana University, Fort Wayne, 1996.

Ph.D. Instructional Systems Technology, School of Education, Indiana University, 2003.

Professional Experience.....

- 2011-Present **Assistant Superintendent for Technology**—for the Indiana Department of Education. Oversee a team of 20-25 people responsible for internal agency technology as well as efforts to leverage technology for school reform and student learning across the state.
- 2009-2011 **Director of Learning Technologies**—for the Indiana Department of Education. This role involves oversight for educational technology funding to Indiana schools through state and federal grant programs as well as responsibility as the state E-rate coordinator. This position serves as the liaison between the Indiana department of education and professional associations for educational technology in Indiana. Additional responsibilities include efforts to advance the development, adoption and use of the state educator portal, the Learning Connection.
- 2007-2009 **Assistant Director—Center for Information Systems (CIS)** for the Indiana Department of Education. This role involves leadership on various projects including the development of a teaching and learning portal for Indiana educators. Project management, grant writing, systems design, and representing CIS on various committees round out the profile. Also oversee the transition of the smartDESKTOP (www.smartdesktop.org) to the Indiana Department of Education
- 2005-2007 **Director of Education** for the Indiana Humanities Council. In this role, I direct the Council's education efforts and initiatives including primary responsibility for the smartDESKTOP Initiative, a school improvement effort with a core of software development of web-based tools to help teachers be more efficient and effective in their work.
- 2004-2005 **Director of Instruction** for the Indiana Humanities Council. In this role I shared in the leadership responsibilities for the smartDESKTOP® Initiative.
- 2003-2004 **Teacher/Designer and Coordinator of K-12 Development** for the Indiana Humanities Council. This position involves leadership responsibilities on the project team as well as providing content and design guidance for the development of a K-12 web portal called the IHC smartDESKTOP.
- 2007 **Adjunct Instructor for Ball State University** in an undergraduate/graduate online course for the college of education. Course titles were: EDTEC 470: Technology Policy and Ethics and EDTEC 670: Technology Policy and Pedagogy
- 2003-2005 **Instructor for Indiana Wesleyan Adult and Professional Studies Program** Taught four courses (Introduction to Special Education-Transition to Teaching Program (Fall '03); Classroom-based Assessment-Masters in Education Program (Spring '04); Elementary Instructional Methods-Transition to Teaching Program (Fall '04 & '05).

- 2001-2003 **Graduate Assistant** for the Teacher Institute for Curriculum Knowledge about Integration of Technology (TICKIT). Job involved assisting the directors of the institute in planning and conducting seminars and workshops and in generally administering the six hours of graduate work of the 25 teachers enrolled in the program each year.
- 1997-2000 **Fifth/Sixth Grade Teacher of Gifted and Talented Class**, Eisenhower Elementary, Warsaw, Indiana.
- 1994-1997 **Sixth Grade Teacher**, Eisenhower Elementary, Warsaw, Indiana.

Service

- 2011-present **Board of Directors, International Society for Technology Education:** Serving the premier international educational technology organization as the representative from the state ed tech director association (SETDA).
- 2010-present **Professional Growth Committee, State Educational Technology Directors Association:** Work as one of several SETDA members on this committee focused on the professional growth of the wider membership.

Honors and Awards

- 2002 **Outstanding Project, Spring 2002 R795 Showcase:** Dissertation Proposal Preparation in Instructional Systems Technology (A Systems Perspective of Professional Development in a K-12 School District)
- Larson Professional Development Award.** An Indiana University, Instructional Systems Technology Departmental award that provides funds for professional development of students through the provision of travel monies.
- 2000 **Chancellor's Fellowship Recipient** (four years), Indiana University Graduate School of Education. Chancellor's Fellowships are for entering graduate students intending to pursue a doctoral or MFA degree and include an annual stipend and fee remission.
- 1994 **Outstanding Student Teacher:** Grace College

Publications.....

- 2011 Foughty, Zach & Keller, J. (2011). Implementing Digital Math Curricula. *Principal Leadership*, January, 64-66.
- 2009 Reigeluth, C.M. & Keller, J.B. Understanding Instruction. In C. Reigeluth and A.Carr-Chellman (Eds.), *Instructional-Design Theories and Models, Volume III*.
- 2008 Keller, J. B., Hixon, E., Bonk, C. J., & Ehman, L. (2008, March). Professional development that increases technology integration by K-12 teachers: The influence of the TICKIT Program. *International Journal of Instructional Technology and Distance Learning*. 5(3), 3-22.
- 2005 Keller, J. B., & Stuve, M. J. Teacher as brand: Pursuing professional identities in a digital domain. In S. Tettegah & R. Hunter (Eds.), *Technology: Issues in administration, policy, and applications in k12 schools*.
- Keller, J., Bonk, C.J., Hew, K. (2005). The TICKIT to teacher learning: Designing professional development according to situative principles. *Journal of Educational Computing Research*, 32(4) 357-368.
- 2004 Keller, J. & Reigeluth, C. (2004) Revolutiozing school reform for educational transformation. *Educational Technology*. September-October, 17-23.
- Keller, J. & Bichelmeyer, B. (2004). What happens when accountability meets technology integration? *Tech Trends*, 48(3), 7-24
- 2002 Keller, J. (2002) *Teachers As Life-Long Learners: Designing A Theory for Professional Development*. Paper presented at 2nd Annual IST Conference, Bloomington, IN Available On-line: <http://www.indiana.edu/~ist/>

SUMMARY

Results driven professional with successful track record reflecting strong leadership qualifications coupled with hands-on technical expertise. Exceptional communicator with a keen aptitude for assessing customers' needs and a talent for proactively identifying and resolving problems. Proven ability to multiply productivity of diverse workforces. Aggressively identifies opportunities, develops focus, and provides solutions. Documented proficiency in translating corporate vision into concrete results.

Core Competencies Include:

Project Management - Problem Analysis and Resolution - Application Development, Implementation and Support - Test Plan Development - Customer/Engineering Relations - Six Sigma/ Technical Presentations - Black Belt Team Leadership - Personnel Training - Policy/Procedure Formulation

PROFESSIONAL EXPERIENCE

State of Indiana
Department of Education
Indianapolis, IN
2010 - Current

Director of Application Development

Key Functions:

- Oversee the design, development, and maintenance of applications to collect and distribute educational data for Indiana's schools, educators and students.
- Participate in early design meetings with Project Managers and Business Owners to interject recommendations of overall design and code, technology use, and use of development standards.
- Define and implement tools for allowing greater visibility application development progress including metrics and time estimations.
- Hold regular departmental meetings to review strategic goals and initiatives, promote team building and work to provide growth paths for staff.

Key Accomplishments:

- Implemented Work In Progress reporting to promote visibility of scope of work to Business Owners and Project Managers.
- Developed plan for 90-day implementation cycle for new collections.
- Participated in the planning stages of a Single Sign On solution to be utilized throughout the department.

Information Systems Development Specialist

Key Functions:

- Perform the analysis, design, debugging, deployment, monitoring, and maintenance of software and systems.
- Incorporate technical considerations into web design including legal issues such as accessibility and privacy.
- Identify and recommend innovative solutions to current issues.
- Explore and introduce new technologies to the team.
- Document systems and procedures to ensure results across development group.

Key Accomplishments:

- Implemented the new public facing information application titled Compass in a highly accelerated time frame of approximately two months.
- Introduced and facilitated the use of SQL Server Reporting Services as a primary source for charts and graphs.
- Implemented Single Sign On solutions to allow end users to access multiple applications through a primary application.

- Maintain system integrity of Learning Connection application during rapid expansion period when user base grew from approximately 5,000 users to 45,000 users and record sets expanded to more than 2 million.

Diversified Systems, Inc.
Indianapolis, IN
1996 - 2009

Corporate Preproduction Engineering Manager

Key Functions:

- Managed operations for three shifts in the CPD CAM, PCD CAM and Customer Engineering departments.
- Researched vendors for goods and services, and managed inventory of consumable supplies.
- Coordinated staff training and development, and assisted in the hiring of technical personnel.
- Coordinated other departmental activities as assigned.
- Coordinated and directed projects, making detailed plans to accomplish goals and directing the integration of technical activities.
- Developed performance metrics to meet corporate goals.
- Developed and implemented policies, standards and procedures for the engineering and technical work performed in the station.
- Planned and directed the installation, testing, operation, maintenance, and repair of facilities and equipment.
- Performed administrative functions such as reviewing and writing reports, approving expenditures, enforcing rules, and making decisions about the purchase of materials or services.

Key Accomplishments:

- Participated in the implementation team for new ERP software including defining triggers and job flow, system optimization, report creation, automated data extraction, and end-user training.
- Maintained in-house expert status for most major applications.
- Developed automated "Request Manager" system utilizing ERP labor transactions, SQL DB, and Computer Aided Manufacturing software to deliver production tools to the floor while reducing materials used, labor and inefficiency.
- Created company electronic document system eliminating paper document storage.
- Implemented corporate technology matrix database for defining and tracking complexity of jobs.
- Automated quality checks to reduce product handling damage and opportunities for human error.
- Developed internal part number system to track customer and engineering changes to product.
- Implemented rules based engineering software including defining entire flow of product, determining critical attributes, setting rule criteria, and coding rules.
- Participated in Six Sigma course achieving Black Belt and Team Leader.

Application Engineer

Key Functions:

- Perform the analysis, design, testing, debugging, deployment, monitoring, and maintenance of software and systems.
- Identify opportunities without current solutions to promote streamlined processes.
- Determine priorities and ensure adequacy of project plans and technical proposals including cost-benefit analysis.
- Analyze and document business processes and procedures.
- Determine internal customer's requirements for information or application enhancement.
- Optimize use of applications to promote full utilization.
- Develop custom code for third party applications as well as in-house solutions.
- Support and develop custom automation and reports for various software packages.

CAM Technician

Key Functions

- Reviewed and modify design of circuit boards for manufacturability in a quick-turn, prototype environment.
- Generated all information necessary for building and testing boards, including CNC drill and rout programs; Image and Gerber files; and phototools.

Specialty Products and Insulation
Indianapolis, IN

1995-1996

Accounts Payable Clerk

Key Functions:

- Perform accounts payable for seven regional branches.
- Create and implement pricing spreadsheets, electronic sales forms, and customer database.

MSTC

Fort Benjamin Harrison, IN

1993 - 1995

Lead Scan Technician

Key Functions:

- Perform daily preventative maintenance of microfiche and paper scanning equipment.
- Provide general support for operators.
- Transform existing military personnel records into electronic data to be burned onto optical discs.
- Scan microfiche and paper records. Index individual documents.
- Resolve quality issues of scanned images

CREDENTIALS

Education

- TCPC Perl Programming
- Programming the Perl DBI
- C-Shell Programming
- Unix in a Nutshell
- Object Pascal
- Genesis 2000 Advanced User
- Indiana University Purdue University at Indianapolis - Mechanical Engineering and Mathematics
- Triton Central High School

Technology

- Proficient in numerous CAM and CAD software packages.
- Accomplished in various Microsoft Office software packages.
- Experience with UNIX and Windows platforms.
- Programming skills includes Perl (DBI, Tk, CGI, etc.), C shell, UNIX based macros and DOS batch files.
- Skilled in various databases including SQL Server, MySQL, and MS Access.
- Experience with Crystal Reports, SQL Server Reporting Services and similar reporting packages
- Experience with Visual Studio Application and .NET Development

Certifications

- Six Sigma Green Belt and Black Belt
- IPC 600
- Fundamentals of Electronics Manufacturing

Gary A. Grist

(b)(6)

Director of Technology Systems

IT professional with 10 plus years experience serving customers in the computer industry. Experience varies greatly from manufacture's Field Engineer troubleshooting computers at the chip level, to a programmer analyst writing accounting and data collection programs, from a system and network administrator to the Director of Technology Systems responsible for the all the technology required to support the business and personnel of the Indiana State Department of Education.

KEY QUALIFICATIONS

Cisco networking experience
Cisco VOIP experience
Email, DNS, SSL, SAN experience

Cisco CCNA teaching experience
VMware experience
Technology staff management

Network security experience
Windows, Linux OS
Budget management

PROFESSIONAL EXPERIENCE

Indiana Department of Education, Indianapolis, Indiana

Network Services Manager / Director of Technology Systems

2002 – present

Manage a staff of six, over all responsibilities includes, technology procurement, internal and external helpdesk, 500 plus local and mobile end user devices, physical and virtual server hardware and software, management and security of the network used to transmit voice, data, and video, administration of the Oracle and MS-SQL databases, and the security of student and other PII data collected and stored by the Department of Education. Directly responsible for technology personnel management, department budget, planning and coordination of IT initiatives, network infrastructure - physical wiring and wireless, Cisco switches and firewalls, Cisco 3060 VPN concentrator, F5 Big IP load balancer and SSL accelerator, McAfee Secure Computing web proxy, McAfee Secure Computing spam solution, Source Fire Snort IDS, Blackberry enterprise server, and overall computer, network, and data security.

Accomplishments:

- Replaced proprietary Dynx PTX computer systems running Oracle, SAS, and Unify with RedHat Linux running on off the shelf hardware. This resulted in a cost savings for hardware, software licensing and maintenance.
- Designed, implemented, and managed a secure IPSEC VPN network used by all school corporations in the state to upload student data.
- Server consolidation project; replacing outdated physical hardware with VMware virtual servers. Currently about halfway finished with 50 of the 100 servers virtualized.
- Research, design and implement Disaster Recovery, Business Continuity plan for the State Department of Education technology needs. Currently implementing.
- Implemented computer system patch policy to enhance system security.
- Maintain DNS for doe.state.in.us, doe.in.gov, and k12.in.us top level domains

MDS Washington Township, Indianapolis, Indiana

Adult Education Evening Class Instructor

2000 - 2004

Taught the following evening adult education classes:

- Cisco CCNA
- Basic computer usage
- Microsoft Word
- Microsoft Excel

Indiana Department of Education, Indianapolis, Indiana

Programmer Analyst, Network Administrator, System Administrator

09/1993 – 2002

Programmed in C, Perl, Unix shell script, and ColdFusion to support online data collection from School Corporations. Responsibilities included Textbook Adoption and Reimbursement, Summer School Reimbursement, Expulsions, Suspensions, and School Board Members.

- Designed, and maintained the data network containing over 400 nodes in three different buildings, including State House & Supreme Court. Upgraded a Thicknet network to 10baseT.
- Created and supported multiple Linux systems on desktop hardware to provide a wide variety of services DNS, Email, Print, and Web, saving thousands of dollars in server hardware by reusing outdated desktop hardware.
- Instructed Teachers, Principals, Superintendents, Supreme Court justices, and other elected officials in the use of E-mail and the value of the Internet.

EDUCATION AND TRAINING

AUM v5.0 Administering Unified Messaging, Indianapolis IN. August 2009

ACUCM v7.0 Administering Cisco Unified Communication Manager, Indianapolis IN. August 2009

SANS SEC556 Comprehensive Packet Analysis, Purdue West Lafayette IN. January 2009

Project Management workshop, Indianapolis IN. August 2008

CyberSecurity: Incident Handling and Response, Police Academy Indianapolis IN. August 2008

VMWARE class Chicago, IL. December 2008

SANs 401 Security Essentials, Purdue West Lafayette IN. January 2007

Induction to RedHat Linux, Indianapolis IN. 2002

Productivity Point Network Defense and Counter Measures, Indianapolis IN. September 2002

Productivity Point Network Security Fundamentals, Indianapolis IN. September 2002

Ernst and Young Extreme Hacking, Indianapolis IN. June 2002

Sniffer TCP/IP, Indianapolis IN. October 2002

Sniffer Troubleshooting, Indianapolis IN. October 2002

Cisco CCNA Instructor training, Indianapolis IN. 2001

Cisco CCNA, Indianapolis IN. 2000 - 2001

Cisco ATM, St. Louis MO. 2000

Cisco Building Multilayer Switched Networks, Indianapolis IN. June 2000

ICRC Introduction to Cisco Router Configuration, Indianapolis IN. February 2000

Certifications (currently inactive), **CCNA (Cisco Certified Network Associate)** March 2002
CCAI (Cisco Certified Academy Instructor).

Missouri Technical School, Digital Electronics

Sharon Land

(b)(6)

Current Position

Indiana Department of Education Division of Education Information Systems
Project Manager/Business Analyst
October 2007 to Present

Currently the Senior PM/BA 4 year \$5.1 million Statewide Longitudinal Data System (SLDS) federal grant which was awarded to the Indiana Department of Education in September 2007. The main purpose of the grant is to create the linkage between student to teacher data. Out of this grant 13 projects were identified and completed under my direction.

Followed project lifecycles that are necessary to a project of this size:
Business requirements gathering across multiple departments
Worked with department stakeholders to identify business processes
Prepared business flow diagrams to identify current processes
Prepared business flow diagrams to identify outlined changes
Assisted and also prepared RFP's
Created scoring rubric for SOW's
Facilitated vendor review of SOW's
Facilitated weekly status meetings
Prepared monthly status reports for federal reporting
Prepared annual reports for federal reporting
Facilitated steering committee meetings
Managed multiple project plans
Managed vendor contracts
Worked with appropriate approvers for changes orders
Assisted with Q&A and writing use cases for testing
Managed overall grant budget expenditures

Strengths to this particular project:
Self starter
Attention to detail
Comfortable working and managing teams of various sizes
Comfortable working across multiple departments
Problem solver
Process oriented
Excellent verbal and written communication skills

**Work
Experience**

Fair Isaac Corporation
Executive Administrator - Office Manager - Facilities Manager
Indianapolis Office
December 2000 – October 2007
Responsibilities:

Responsible for maintaining the day to day operations of the Indianapolis office
Managed all vendors and vendor contracts for Indianapolis office
Project Manager for several internal projects at the Senior Management level
Considered the “go to” person for Sr. Director’s leadership team
Planned all offsite meetings and locations for Managing Director’s Business Unit (150 people)
P&L responsibilities - Managed the expense budget for business unit of (150 people)
Managed and maintain expense and revenue tracking for several sub-contractors for business unit
Regularly interfaced with several corporate Managing Directors, VP’s and Senior VP’s
Managed all aspects of 3 office relocations/redesign for Indianapolis office

Strengths particular to these positions:

Advanced user of Microsoft Office products – Word, Excel, Project and Visio
Advanced user of Webex and other remote communication tools
Self starter and takes the initiative to assume additional tasks outside scope of responsibility.
Comfortable working across multiple departments
Very comfortable working in a team environment or by myself

Business and personal references are available upon request.

IDOE and CHE Technical Support

Nick Buchanan

Nick is a data warehouse architect and systems analyst for the Indiana Commission for Higher Education. At the Commission, he leads projects designed to support an agency wide data warehouse. His tasks include analyzing business requirements, assessing data sources, creating dimensional data models, and developing ETL code. He also assists in the development of the presentation area of the data warehouse by configuring business intelligence and data query tools and by creating reports and dashboards. Prior to working at the Commission for Higher Education, Nick worked for the Indiana Department of Education as the Department's data warehouse architect. Before that, he worked as a software developer at Epic Systems in Madison, WI. Nick has a B.S in Computer Engineering from Purdue University.

Rick Hoffman

Rick is the Database Administrator at the Indiana Department of Education. He is responsible for the development, implementation and maintenance fo the SQL Server and Oracle databases that contain the student, teacher and school data for the state of Indiana.

Prior to working at the Department of Education, Rick worked for Western Electric, AT&T and Lucent Technologies in various roles such as project manager, engineering services sales representative, programmer and Oracle database administrator working in areas such as On-Demand Printing and On-Line Documentation for the Lucent library of manuals and training materials, the Saba Training System, E-9-1-1 database creation, telephone office conversions from electro-magnetic to electronic switching, and other various telephony related projects. Rick has a B.A. in Mathematics from Indiana University.

Appendix D – Acronyms List

Acronym Page

App Center:	IDOE Application Center.
CHE:	Commission for Higher Education.
DBA:	Database Administrator.
DWD:	Department of Workforce Development.
FSSA:	Family and Social Services Administration.
ECA:	End of Course Assessment.
FERPA:	Family Educational Rights and Privacy Act.
FTP:	File Transfer Protocol.
HIPAA:	Health Insurance Portability and Accountability Act.
IDOE:	Indiana Department of Education.
IOT:	Indiana Office of Technology.
IRBC:	Indiana Business Research Center.
ISDH:	Indiana State Department of Health.
ISTAR:	Indiana Standards Tool for Alternate Reporting (Indiana's test for alternate assessment).
IT:	Information Technology.
IWIS:	Indiana Workforce and Education Intelligence System.
LAS Links:	Language Assessment System Links.
LEA:	Local Education Agency.
LEP:	Limited English Proficient.
RFA:	Request for Applications.
SEA:	State Education Agency.
SLDS:	Statewide Longitudinal Data System.
SPN:	School Personnel Number. Indiana's unique school personnel identifier.
SSACI:	State Student Assistance Commission of Indiana.
STN:	Student Test Number. Indiana's unique student identifier.

Budget Narrative File(s)

* **Mandatory Budget Narrative Filename:**

To add more Budget Narrative attachments, please use the attachment buttons below.

A. BUDGET NARRATIVE

Indiana is requesting a total of \$3,977,194 over three project years to complete the four of the five deliverables under the SLDS project (Indiana has already secured funding for our first of five deliverables—a feasibility study which is a critical first component of the work), as noted in the table below.

SLDS Project Budget (combined deliverables)				
Deliverable	Year 1	Year 2	Year 3	3-Year Total
1. Conduct feasibility study (in progress)	\$ -	\$ -	\$ -	\$ -
2. Convene governing council	\$ 151,535	\$ 58,140	\$ 58,140	\$ 267,815
3. Define data management and controls	\$ 441,953	\$ -	\$ -	\$ 441,953
Design and build a federated data				
4. linking system	\$ 178,706	\$ 1,616,213	\$ 977,551	\$ 2,772,470
5. Report design and user support	\$ -	\$ -	\$ 494,955	\$ 494,955
<i>Total</i>	\$ 772,194	\$ 1,674,354	\$ 1,530,646	\$ 3,977,194

A separate budget narrative has been given for each deliverable. However, to avoid repetition, general considerations and items that are applicable to all of the deliverables are addressed below. Following the descriptions of the individual deliverable budgets, a section on post-project sustainability concludes the budget narrative.

This project proposal and budget narrative assumes in-kind support from each participating agency. Agency staff have been included for actual grant support at modest levels in this project (percentages range from 10-25%). In-kind calculations were based on 50% of the grant support percentage. As an example, an individual with a 10% time allocation in the project budget was included at 5% in the in-kind calculation. This amounted to a grand total in-kind support of

(b)(4) Agency breakouts are provided below but are not allocated across deliverables.

- IDOE – (b)(4)
- CHE – \$ (b)(4)
- DWD – (b)(4)

Summary Project Budget

Each of the deliverables has been designed as a separate phase to meet or enhance various project requirements. In many cases, however, these phases (and tasks) overlap and interconnect. Although each deliverable is distinct, they are connected at the work level. Systems developed for one deliverable may be dependent upon data standardization efforts in another deliverable, which may influence training plan changes in another, etc.

The budget has been prepared under the following assumptions:

- Each of the deliverables will be funded as requested. This is especially important for the contracted Project Manager, Business/Data Analyst, and Technical Lead positions whose costs have been distributed (on a weighted basis) across multiple deliverables.
- Partner agencies and contracted resources will be able to meet the proposed timelines. Discussions have been held with lead agencies and there is commitment to the success of the project. However if actual work arrangements were to take longer than expected, this would impact the budget.

- The overall budget and deliverable budgets have been developed with the best knowledge available. The proposed budget will be reviewed as part of project management, and adjustments made as necessary to appropriately allocate costs between line-items, across project years, and among deliverables.

Budget Category Notes Applicable to All of the Deliverables

The following considerations apply to each of the deliverables.

Personnel

Personnel costs represent only those classified, salaried employees of IDOE who will be assigned to the project. Non-salaried personnel (consultants/contractors) have been listed under “Contractual.” Any classified, salaried employees from other state agencies who will contribute to the project (e.g. CHE, DWD) have likewise been listed under “Contractual” – since IDOE would obtain their services under a Memorandum of Understanding (MOU) or similar agreement between IDOE and the partner agency.

All personnel costs will have associated Fringe Benefit costs. Indiana’s current fringe benefit rates are listed below.

Indiana Fringe Benefits Table	
Benefit Category	Rate*/Amount
Annual Health Insurance Premiums	\$10,774
Other Costs*	21.13%

**Includes FICA, PERF/TRF (Indiana Retirement Fund), disability, and life insurance.*

The rates have been applied for each of the three years of the project.

For budgeting purposes, costs and expenses associated with IDOE staff positions were allocated across project deliverables in a pro-rated (weighted) manner based on associated workload. The estimated workload for each position is described in the individual deliverable budgets.

Travel

Unless otherwise controlled by Federal grant requirements, SLDS project travel-related expenses will be governed by the applicable *State Travel Regulations*. Travel costs are associated with project team participation in grantee meetings, conference presentations about the project and travel incurred as part of the roll-out and implementation activities. A baseline of \$5,000/year will be prorated across projects for each year to account for travel that is not specific to a deliverable. Travel costs associated with a deliverable will be discussed in the budget narrative for that deliverable.

Equipment

This category includes only hardware and software purchased for ownership by IDOE. IDOE maintains additional, up-to-date laptop computers and development tool licenses (e.g., ASP.Net) for contractor use, so expenses in those areas should be minimal.

Supplies

IDOE is not requesting any funding for supplies, having estimates that the need will be minimal. This is based on the assumption that training materials – a significant item, will either be delivered electronically, or will be included in one or more of the contractual expenses.

Contractual

This category consists generally of two types of costs – contractors or services directly engaged by IDOE, and agreements made by IDOE and one or more of its partner agencies to perform one or more project tasks. Indirect costs have not been applied to this category (see below).

Contractual costs associated with partner agencies have been specified, but in many cases – especially for such activities as federated system development and independent evaluation – in-depth estimates of expenses will not be available until after the grant is underway and will result from detailed project planning. Partner agencies supporting project tasks include the Commission for Higher Education (CHE) and the Department of Workforce Development (DWD).

IDOE expects to contract the following three specific roles using the requested grant funding: Project Manager, Business/Data Analyst, and Technical Lead. For budgeting purposes, costs and expenses associated with these positions were allocated across project deliverables in a pro-rated (weighted) manner based on associated workload. The estimated workload for each position is described in the individual deliverable budgets. The estimate for contracting for these positions is at the following rates:

- Project Manager – \$110 / hour (~\$228,800 annually)
- Business/Data Analyst – \$90 / hour (~\$187,200 annually)
- Technical Lead – \$100 / hour (~\$208,000 annually)

Full contract details for the Project Manager, Business Data/Analyst, and Technical positions cannot be finalized until after the grant award.

Construction

Indiana is not requesting any funding for construction.

Other

Indiana is not requesting any funding for “Other” expenses.

Indirect Costs

IDOE’s current indirect cost rate is 5.7% of total direct costs. For purposes of calculating the SLDS project indirect costs, all “Contractual” category expenses have been excluded, and the rate applied only to the remaining direct costs. The project budget assumes the rate will remain unchanged over the life of the project.

Training Stipends

Indiana is not seeking any funding for training stipends.

Deliverable 1 – Conduct feasibility study

Indiana is requesting \$0 to conduct a federated data system feasibility study. As described earlier in the project narrative, Indiana’s Education Roundtable Foundation has already awarded a \$40,000 grant to the Kualu Foundation to evaluate Indiana’s readiness to build a federated P-20 data system, identify the best approach, and estimate the required resources. Findings of this study will be used to inform and sharpen the project design and planning outlined in this proposal.

Deliverable 2 – Convene a Governing Council

Indiana is requesting \$267,815 to convene a Governing Council for the proposed federated data system.

Deliverable 2 - Convene a governing council				
Category	Year 1	Year 2	Year 3	3-Year Total
1 Personnel	\$ 9,240	\$ 4,840	\$ 4,840	\$ 18,920
2 Fringe Benefits	\$ 3,245	\$ 1,777	\$ 1,777	\$ 6,799
3 Travel	\$ 2,500	\$ 2,500	\$ 2,500	\$ 7,500
4 Equipment	\$ -	\$ -	\$ -	\$ -
5 Supplies	\$ -	\$ -	\$ -	\$ -
6 Contractual	\$ 135,695	\$ 48,504	\$ 48,504	\$ 232,703
7 Construction	\$ -	\$ -	\$ -	\$ -
8 Other	\$ -	\$ -	\$ -	\$ -
9 <i>Total Direct Costs (Lines 1-8)</i>	\$ 150,681	\$ 57,621	\$ 57,621	\$ 265,922
10 Indirect Costs	\$ 854	\$ 520	\$ 520	\$ 1,893
11 Training Stipends	\$ -	\$ -	\$ -	\$ -
12 <i>Total Costs (Lines 9-11)</i>	\$ 151,535	\$ 58,140	\$ 58,140	\$ 267,815

The Governing Council will have a deep and vested interest in the educational outcomes of Indiana's students as well as Indiana's overall economic development. The Governing Council will set the course for Indiana's Workforce and Education Data System by setting a research agenda to be accomplished through new levels of data access and linking made possible through the system, establishing agency support at the executive level, and empowering the steering committee to drive the various phases of the project. Members of the governing council will have the authority to commit agency/organization resources to complement the direct support through the grant and to sustain the federated system once the initial funding cycle is complete.

Highlights of this deliverable's budget include:

Personnel

Personnel costs for this deliverable consist of a pro-rated (weighted by deliverable workload) share of the following IDOE positions, for a total of \$18,920.

- Project Director at a salary of \$88,000, for 8% FTE in Year 1, 3% FTE in Year 2, and 3% in Year 3, for a total cost of \$12,320.
- Agency Data Lead at a salary of \$65,000, for 2% FTE in Year 1, 2% FTE in Year 2, and 2% in Year 3, for a total cost of \$3,900.
- Agency Data Analyst at a salary of \$45,000, for 2% FTE in Year 1, 2% FTE in Year 2, and 2% in Year 3, for a total cost of \$2,700.

Fringe Benefits

Associated with the personnel costs are \$6,799 in fringe benefits expenses.

Contractual

In addition to the work performed by IDOE staff, other deliverable work would be performed by the contracted Project Manager, as well as resources from partner agencies, CHE and DWD. The estimate of \$232,703 includes:

- Partner agency costs of \$14,000 in Year 1 for CHE and \$23,000 in Year 1 for DWD.
- Project Manager for 40% FTE in Year 1, 20% FTE in Year 2, and 20% FTE in Year 3, for a total cost of \$183,040.
- A pro-rated share of the estimated costs for an independent evaluator, a total of \$12,663 for this deliverable.

Indirect Costs

Indirect costs of \$1,893 have been included, at a rate of 5.70% of Total Direct Costs less all “Contractual” and “Other” expenses.

Deliverable 3 – Define data management and controls

Indiana is requesting \$441,953 to develop comprehensive data management processes and controls associated with a federated data system; including data element definitions, meta-data requirements, conceptual maps and exchange standards. As noted in the project narrative, this is a foundation element for the federated data system. Much of the actual reporting, security, and access control work identified, planned, and designed by this effort will be carried out in subsequent deliverables.

Deliverable 3 - Define data management and controls				
Category	Year 1	Year 2	Year 3	3-Year Total
1 Personnel	\$ 46,833	\$ -	\$ -	\$ 46,833
2 Fringe Benefits	\$ 16,899	\$ -	\$ -	\$ 16,899
3 Travel	\$ 2,500	\$ -	\$ -	\$ 2,500
4 Equipment	\$ -	\$ -	\$ -	\$ -
5 Supplies	\$ -	\$ -	\$ -	\$ -
6 Contractual	\$ 371,946	\$ -	\$ -	\$ 371,946
7 Construction	\$ -	\$ -	\$ -	\$ -
8 Other	\$ -	\$ -	\$ -	\$ -
9 Total Direct Costs (Lines 1-8)	\$ 438,178	\$ -	\$ -	\$ 438,178
10 Indirect Costs	\$ 3,775	\$ -	\$ -	\$ 3,775
11 Training Stipends	\$ -	\$ -	\$ -	\$ -
12 Total Costs (Lines 9-11)	\$ 441,953	\$ -	\$ -	\$ 441,953

Highlights of this deliverable’s budget include:

Personnel

Personnel costs for this deliverable consist of a pro-rated (weighted by deliverable workload) share of the following IDOE positions, for a total of \$46,833.

- Project Director at a salary of \$88,000, for 10% FTE in Year 1, for a total cost of \$8,800.
- Agency Technology Advisor at a salary of \$102,000, for 5% FTE in Year 1, for a total cost of \$5,100.

- Agency Project Manager at a salary of \$66,329, for 5% FTE in Year 1, for a total cost of \$3,316.
- Agency Technical Lead at a salary of \$72,000, for 5% FTE in Year 1, for a total cost of \$3,600.
- Agency Data Lead at a salary of \$65,000, for 10% FTE in Year 1, for a total cost of \$6,500.
- Agency Database Administrator at a salary of \$70,500, for 5% FTE in Year 1, for a total cost of \$3,525.
- Agency Infrastructure Manager at a salary of \$79,839, for 5% FTE in Year 1, for a total cost of \$3,992.
- Agency Business Intelligence Developer at a salary of \$55,000, for 10% FTE in Year 1, for a total cost of \$5,500.
- Agency Data Architect at a salary of \$65,000, for 10% FTE in Year 1, for a total cost of \$6,500

Fringe Benefits

Associated with the personnel costs are \$16,899 in fringe benefits expenses.

Contractual

In addition to the work performed by IDOE staff, other deliverable work would be performed by the contracted Project Manager, Business/Data Analyst, and Technical Lead, as well as resources from partner agencies, CHE and DWD. The estimate of \$342,080 includes:

- Partner agency costs of \$14,000 in Year 1 for CHE and \$23,000 in Year 1 for DWD
- Project Manager for 40% FTE in Year 1, for a total cost of \$91,520.
- Business/Data Analyst for 30% FTE in Year 1, for a total cost of \$56,160
- Technical Lead for 80% FTE in Year 1, for a total cost of \$166,400.
- A pro-rated share of the estimated costs for an independent evaluator, a total of \$20,866 for this deliverable.

Indirect Costs

- Indirect costs of \$3,775 have been included, at a rate of 5.70% of Total Direct Costs less all “Contractual” and “Other” expenses.

Deliverable 4 – Design and build a federated data linking and reporting system

Indiana is requesting \$2,772,470 to develop a cross-agency data linking and reporting system that can be used in a manner that maintains the confidentiality of individual student/teacher/employee data while ensuring that the information can be used for accountability and analysis purposes.

The key outcome for this deliverable is a multi-agency federated data system. Major tasks to accomplish this include building a central linking directory, implementing message broker and web services, and finally creating processes and applications for data query reporting. Most of the requirements and design work for the system will happen in the first two years of the project. Year three includes building, testing, and implementation.

Deliverable 4 - Design and build a federated data linking system				
Category	Year 1	Year 2	Year 3	3-Year Total
1 Personnel	\$ 21,916	\$ 103,417	\$ 51,100	\$ 176,434
2 Fringe Benefits	\$ 7,863	\$ 37,474	\$ 18,339	\$ 63,677
3 Travel	\$ -	\$ 5,000	\$ 5,000	\$ 10,000
4 Equipment	\$ -	\$ 166,000	\$ -	\$ 166,000
5 Supplies	\$ -	\$ -	\$ -	\$ -
6 Contractual	\$ 147,229	\$ 1,296,007	\$ 898,868	\$ 2,342,104
7 Construction	\$ -	\$ -	\$ -	\$ -
8 Other	\$ -	\$ -	\$ -	\$ -
9 Total Direct Costs (Lines 1-8)	\$ 177,009	\$ 1,607,898	\$ 973,308	\$ 2,758,214
10 Indirect Costs	\$ 1,697	\$ 8,316	\$ 4,243	\$ 14,256
11 Training Stipends	\$ -	\$ -	\$ -	\$ -
12 Total Costs (Lines 9-11)	\$ 178,706	\$ 1,616,213	\$ 977,551	\$ 2,772,470

Highlights of this deliverable's budget include:

Personnel

Personnel costs for this deliverable consist of a pro-rated (weighted by deliverable workload) share of the following IDOE positions, for a total of \$182,434.

- Project Director at a salary of \$88,000, for 5% FTE in Year 1, 25% FTE in Year 2, and 10% FTE in Year 3, for a total cost of \$35,200.
- Agency Technology Advisor at a salary of \$102,000, for 5% FTE in Year 1, 10% FTE in Year 2, and 5% FTE in Year 3, for a total cost of \$20,400.
- Agency Project Manager at a salary of \$66,329, for 5% FTE in Year 1, 10% FTE in Year 2, and 5% FTE in Year 3, for a total cost of \$13,266.
- Agency Technical Lead at a salary of \$72,000, for 5% FTE in Year 1, 15% FTE in Year 2, and 5% FTE in Year 3, for a total cost of \$18,000.
- Agency Data Lead at a salary of \$65,000, for 5% FTE in Year 1, 25% FTE in Year 2, and 5% FTE in Year 3, for a total cost of \$22,750.
- Agency Data Analyst at a salary of \$45,000, for 5% FTE in Year 1, and 10% FTE in Year 2, for a total cost of \$6,750.
- Agency Database Administrator at a salary of \$70,500, for 0% FTE in Year 1, 10% FTE in Year 2, and 10% FTE in Year 3, for a total cost of \$14,100.
- Agency Infrastructure Manager at a salary of \$79,839, for 0% FTE in Year 1, 10% FTE in Year 2, and 10% FTE in Year 3, for a total cost of \$15,968.
- Agency Business Intelligence Developer at a salary of \$55,000, for 0% FTE in Year 1, 15% FTE in Year 2, and 10% FTE in Year 3, for a total cost of \$13,750.
- Agency Data Architect at a salary of \$65,000, for 0% FTE in Year 1, 15% FTE in Year 2, and 10% FTE in Year 3, for a total cost of \$16,250.

Fringe Benefits

Associated with the personnel costs are \$63,677 in fringe benefits expenses.

Travel

Deliverable 4 includes an additional \$3,750 to cover expenses related to pilot tests.

Equipment

The estimate of \$166,000 for equipment includes:

- Federated data servers (web, application, database, messaging) at cost of \$150,000.
- SQL Server 2008 licenses, with an estimated cost of \$16,000 for 8 CPUs.

Contractual

In addition to the work performed by DOE staff, other deliverable work would be performed by the contracted Project Manager, Business/Data Analyst, and Technical Lead, as well as resources from partner agencies, CHE and DWD. The estimate of \$2,505,280 includes:

- Partner agency costs of \$7,000 in Year 1, \$35,000 in Year 2, and \$34,000 in Year 3 for CHE, for a total cost of \$76,000.
- Partner agency costs of \$7,000 in Year 1, \$53,000 in Year 2, and \$23,000 in Year 3 for DWD, for a total cost \$83,000.
- Project Manager for 20% FTE in Year 1, 80% FTE in Year 2, and 40% FTE in Year 3, for a total cost of \$320,320.
- Business/Data Analyst for 20% FTE in Year 1 and 75% FTE in Year 2, for a total cost of \$177,480.
- Technical Lead for 20% FTE in Year 1, 100% FTE in Year 2, and 50% FTE in Year 3, for a total cost of \$353,600.
- Contracted federated system development services for \$1,200,000.
- A pro-rated share of the estimated costs for an independent evaluator, a total of \$123,044 for this deliverable.

Full contract details for federated system development service will depend on the logical, physical, and visual design of the system and cannot be finalized until after the grant award.

Indirect Costs

- Indirect costs of \$14,256 have been included, at a rate of 5.70% of Total Direct Costs less all “Contractual” and “Other” expenses.

Deliverable 5 – Report design and user support

Indiana is requesting \$494,955 to create reports and implement professional development/training.

Deliverable 5 - Report design and user support				
Category	Year 1	Year 2	Year 3	3-Year Total
1 Personnel	\$ -	\$ -	\$ 30,366	\$ 30,366
2 Fringe Benefits	\$ -	\$ -	\$ 10,726	\$ 10,726
3 Travel	\$ -	\$ -	\$ 10,000	\$ 10,000
4 Equipment	\$ -	\$ -	\$ -	\$ -
5 Supplies	\$ -	\$ -	\$ -	\$ -
6 Contractual	\$ -	\$ -	\$ 440,951	\$ 440,951
7 Construction	\$ -	\$ -	\$ -	\$ -
8 Other	\$ -	\$ -	\$ -	\$ -
9 Total Direct Costs (Lines 1-8)	\$ -	\$ -	\$ 492,043	\$ 492,043
10 Indirect Costs	\$ -	\$ -	\$ 2,912	\$ 2,912
11 Training Stipends	\$ -	\$ -	\$ -	\$ -
12 Total Costs (Lines 9-11)	\$ -	\$ -	\$ 494,955	\$ 494,955

Highlights of this deliverable's budget include:

Personnel

Personnel costs for this deliverable consist of a pro-rated (weighted by deliverable workload) share of the following IDOE positions, for a total of \$30,366.

- Project Director at a salary of \$88,000, for 15% FTE in Year 3, for a total cost of \$13,200.
- Agency Technology Advisor at a salary of \$102,000, for 5% FTE in Year 3, for a total cost of \$5,100.
- Agency Project Manager at a salary of \$66,329, for 5% FTE in Year 3, for a total cost of \$3,316.
- Agency Data Lead at a salary of \$65,000, for 10% FTE in Year 3, for a total cost of \$6,500.
- Agency Data Analyst at a salary of \$45,000, for 5% FTE in Year 3, for a total cost of \$2,250.

Fringe Benefits

Associated with the personnel costs are \$10,726 in fringe benefits expenses.

Travel

Deliverable 4 includes an additional \$8,750 to cover expenses related to professional development/training.

Contractual

In addition to the work performed by IDOE staff, other deliverable work would be performed by the contracted Project Manager and Technical Lead, as well as resources from partner agencies, CHE and DWD. The estimate of \$440,951 includes:

- Partner agency costs of \$21,000 in Year 3 for CHE and \$30,000 in Year 3 DWD, for a total cost of \$51,000.
- Project Manager for 40% FTE in Year 3, for a total cost of \$91,520.
- Contracted report design and development services for \$150,000.
- Contracted training plan development and delivery services for \$125,000.

- A pro-rated share of the estimated costs for an independent evaluator, a total of \$23,431 for this deliverable.

Full contract details for the report development and training services cannot be finalized until after the grant award.

Indirect Costs

- Indirect costs of \$2,912 have been included, at a rate of 5.70% of Total Direct Costs less all “Contractual” and “Other” expenses.

Sustainability

Upon completion of the project, Indiana will have an ongoing responsibility to operate and maintain the SLDS. Following implementation, IDOE intends to support the SLDS by transitioning selected project staff to operation and maintenance responsibilities (a number of existing IDOE staff assigned to the project will also share in these roles). As part of the project, IDOE will also execute agreements with partner agencies to continue their own support of their portion of the systems, databases, and tools upon which the SLDS will depend.

IDOE anticipated that the funding needed to sustain the SLDS will be obtained from a number of sources, including:

- Staff time savings from a reduction in the effort required to respond to ad-hoc requests for data (since the proposed SLDS will make it easier for users to obtain data on their own).
- Cost-sharing agreements with state partner agencies including anticipated expanded agency membership.
- Re-allocation of funds from the departmental operating budget

However, given that good estimates for SLDS operating and maintenance costs will not be available until after the detailed planning has been done, IDOE believes that its approach to “sustainability” will need to be re-assessed after the initial development phase, and then monitored closely thereafter to ensure that the required resources will be available.

Finally, the Indiana Department of Education, working in concert with the Governing Council, will pursue statutory recognition of the Governing Council along with securing dedicated state funding for the federated system.

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

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

Name of Institution/Organization

Indiana Department of Education

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

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

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	77,990.00	108,257.00	86,307.00			272,554.00
2. Fringe Benefits	28,007.00	39,251.00	30,842.00			98,100.00
3. Travel	5,000.00	7,500.00	17,500.00			30,000.00
4. Equipment		166,000.00				166,000.00
5. Supplies						
6. Contractual	654,870.00	1,344,510.00	1,388,322.00			3,387,702.00
7. Construction						
8. Other						
9. Total Direct Costs (lines 1-8)	765,867.00	1,665,518.00	1,522,971.00			3,954,356.00
10. Indirect Costs*	6,327.00	8,835.00	7,675.00			22,837.00
11. Training Stipends						
12. Total Costs (lines 9-11)	772,194.00	1,674,353.00	1,530,646.00			3,977,193.00

***Indirect Cost Information (To Be Completed by Your Business Office):**

If you are requesting reimbursement for indirect costs on line 10, please answer the following questions:

(1) Do you have an Indirect Cost Rate Agreement approved by the Federal government? Yes No

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

Period Covered by the Indirect Cost Rate Agreement: From: To: (mm/dd/yyyy)

Approving Federal agency: ED Other (please specify):

The Indirect Cost Rate is %.

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

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

Name of Institution/Organization Indiana Department of Education	Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.	
---	---	--

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

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

SECTION C - BUDGET NARRATIVE (see instructions)