

# **U.S. Department of Education**

**Washington, D.C. 20202-5335**



## **APPLICATION FOR GRANTS UNDER THE**

**STATEWIDE LONGITUDINAL DATA SYSTEM RECOVERY ACT GRANTS  
CFDA # 84.384A  
PR/Award # R384A100055**

Closing Date: DEC 04, 2009

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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.).

<b>Application for Federal Assistance SF-424</b>		Version 02	
* 1. Type of Submission		* 2. Type of Application:* If Revision, select appropriate letter(s):	
<input type="checkbox"/> Preapplication		<input checked="" type="checkbox"/> New	
<input checked="" type="checkbox"/> Application		<input type="checkbox"/> Continuation      * Other (Specify)	
<input type="checkbox"/> Changed/Corrected Application		<input type="checkbox"/> Revision	
* 3. Date Received:		4. Applicant Identifier:	
12/4/2009		State of Tennessee Department of Education	
5a. Federal Entity Identifier:		* 5b. Federal Award Identifier:	
626001445		626001445	
<b>State Use Only:</b>			
6. Date Received by State:		7. State Application Identifier:	
<b>8. APPLICANT INFORMATION:</b>			
* a. Legal Name:    State of Tennessee Department of Education			
* b. Employer/Taxpayer Identification Number (EIN/TIN):		* c. Organizational DUNS:	
626001445		879016251	
<b>d. Address:</b>			
* Street1:		710 James Robertson Parkway	
Street2:		6th Floor, Andrew Johnson Tower	
* City:		Nashville	
County:		Davidson	
State:		TN	
Province:			
* Country:		USA	
* Zip / Postal Code:		37243	
<b>e. Organizational Unit:</b>			
Department Name:		Division Name:	
State of Tennessee		Department of Education	
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>			
Prefix:		Ms.	
		* First Name:	
		Irma	
Middle Name:			

\* Last Name: Jones

Suffix:

Title: Chief Analytic Officer

Organizational Affiliation:

\* Telephone  
Number:

(615)532-0505

Fax Number:

(615)532-4791

\* Email: IRMA.JONES@TN.GOV

**Application for Federal Assistance SF-424**

Version 02

**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:**

84.384A

CFDA Title:

Statewide Longitudinal Data System Recovery Act Grants

**\* 12. Funding Opportunity Number:**

84.384

Title:

GRANTS FOR STATEWIDE, LONGITUDINAL DATA SYSTEMS UNDER THE AMERICAN  
RECOVERY  
AND REINVESTMENT ACT OF 2009

**13. Competition Identification Number:**

Title:

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

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

GRANTS FOR STATEWIDE, LONGITUDINAL DATA SYSTEMS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

Attach supporting documents as specified in agency instructions.

**Attachment:**

Title :

File :

**Attachment:**

Title :

File :

**Attachment:**

Title :

File :

**Application for Federal Assistance SF-424**

Version 02

**16. Congressional Districts Of:**

\* a. Applicant: 5th

\* b. Program/Project: 5th

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

**Attachment:**

Title :

File :

**17. Proposed Project:**

\* a. Start Date: 6/1/2010

\* b. End Date: 7/1/2013

**18. Estimated Funding (\$):**

a. Federal	\$ 19817491
b. Applicant	\$ 0
c. State	\$
d. Local	\$
e. Other	\$
f. Program Income	\$
g. TOTAL	\$ 19817491

**\* 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.)**

☐ Yes ☒ No

**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: Dr. \* First Name: Timothy  
Middle Name: K  
\* Last Name: Webb  
Suffix:

Title: Commissioner

\* Telephone Number: (615)741-5158 Fax Number: (615)532-4791

\* Email: TIM.WEBB@TN.GOV

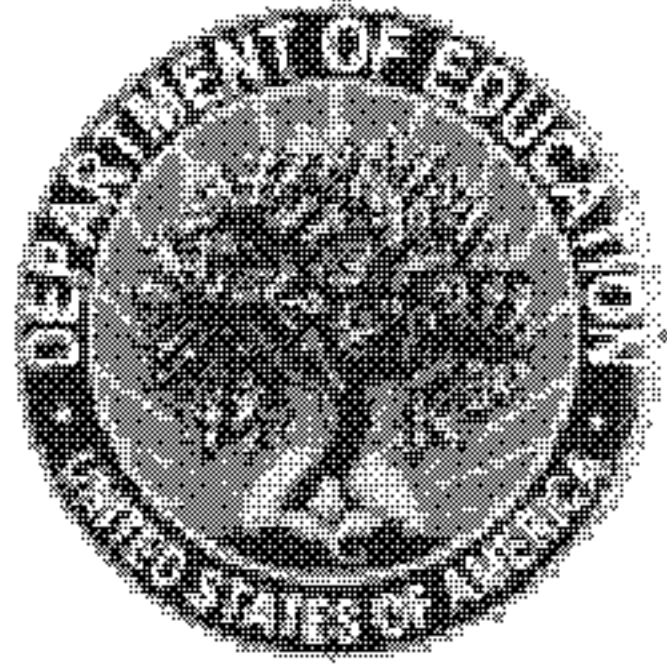
\* Signature of Authorized Representative: \* Date Signed:

**Application for Federal Assistance SF-424**

Version 02

**\* Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.



U.S. DEPARTMENT OF EDUCATION

BUDGET INFORMATION

NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:  
State of Tennessee Department of...

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	\$ 1,111,250	\$ 1,236,000	\$ 1,273,080	\$ 0	\$ 0	\$ 3,620,330
2. Fringe Benefits	\$ 385,675	\$ 460,513	\$ 474,328	\$ 0	\$ 0	\$ 1,320,516
3. Travel	\$ 46,000	\$ 56,000	\$ 56,000	\$ 0	\$ 0	\$ 158,000
4. Equipment	\$ 702,029	\$ 75,750	\$ 77,037	\$ 0	\$ 0	\$ 854,816
5. Supplies	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
6. Contractual	\$ 2,430,000	\$ 4,650,000	\$ 4,525,000	\$ 0	\$ 0	\$ 11,605,000
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 756,744	\$ 749,743	\$ 752,342	\$ 0	\$ 0	\$ 2,258,829
9. Total Direct Costs (lines 1-8)	\$ 5,431,698	\$ 7,228,006	\$ 7,157,787	\$ 0	\$ 0	\$ 19,817,491
10. Indirect Costs*	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 5,431,698	\$ 7,228,006	\$ 7,157,787	\$ 0	\$ 0	\$ 19,817,491

**\*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 0%

(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 0%



**U.S. DEPARTMENT OF EDUCATION**

**BUDGET INFORMATION**

**NON-CONSTRUCTION PROGRAMS**

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:  
State of Tennessee Department of...

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	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2. Fringe Benefits	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
3. Travel	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
4. Equipment	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
5. Supplies	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
6. Contractual	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
9. Total Direct Costs (lines 1-8)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
10. Indirect Costs	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

## ASSURANCES - NON-CONSTRUCTION PROGRAMS

Standard Form 424B (Rev.7-97)

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
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 sub-agreements.
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 (Clear Air) Implementation Plans under Section 176(c) of the Clear 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. "1721 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

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 the 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.

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.

**Signature of Authorized Certifying Representative:**

**Name of Authorized Certifying Representative:** Tim W. Webb

**Title:** Commissioner

**Date Submitted:** 12/01/2009

Disclosure of Lobbying Activities

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

<b>1. Type of Federal Action:</b>  <input type="checkbox"/> Contract <input type="checkbox"/> Grant <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Loan <input type="checkbox"/> Loan Guarantee <input type="checkbox"/> Loan Insurance		<b>2. Status of Federal Action:</b>  <input type="checkbox"/> Bid/Offer/Application <input type="checkbox"/> Initial Award <input type="checkbox"/> Post-Award	<b>3. Report Type:</b>  <input type="checkbox"/> Initial Filing <input type="checkbox"/> Material Change  <b>For Material Change only:</b> Year: 0Quarter: 0 Date of Last Report:
<b>4. Name and Address of Reporting Entity:</b> <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier, if known: 0  Name: Address: City: State: Zip Code + 4: -  <b>Congressional District, if known:</b>		<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>  Name: Address: City: State: Zip Code + 4: -  <b>Congressional District, if known:</b>	
<b>6. Federal Department/Agency:</b>		<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable:	
<b>8. Federal Action Number, if known:</b>		<b>9. Award Amount, if known:</b> \$0	
<b>10. a. Name of Lobbying Registrant</b> (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: -		<b>b. Individuals Performing Services</b> (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: -	
<b>11.</b> Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.		Name: Dr. Timothy K. Webb Title: Commissioner Applicant: State of Tennessee Department of Education Date: 12/04/2009	
<b>Federal Use Only:</b>			Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

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 any 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 or 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

State of Tennessee Department of Education

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: Dr. First Name: Tim Middle Name: W  
Last Name: Webb Suffix:  
Title: Commissioner

Signature: Date:  
12/01/2009

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

## 1. Project Director:

Prefix:	* First Name:	Middle Name:	* Last Name:	Suffix:
Ms.	Irma		Jones	

Address:

\* Street1: 710 James Robertson Parkway

Street2: 6th Floor, Andrew Johnson Tower

\* City: Nashville

County:

\* State: TN \* Zip / Postal Code: 37243 \* Country: USA

* Phone Number (give area code)	Fax Number (give area code)
(615)532-0505	(615)532-4791

Email Address:

IRMA.JONES@TN.GOV

## 2. Applicant Experience

Novice Applicant                      ☐ Yes                      ☐ No                      ☐ Not applicable

### 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?

**11 Yes Provide Exemption(s) #:**

**11** No Provide Assurance #, if available:

**Please attach an explanation Narrative:**

**Attachment:**

Title :  
File :

# Project Narrative

## Project Narrative - Project Abstract

Attachment 1:

Title: **TLDS 360: Tennessee Longitudinal Data System 360 Degree View of A Student** Pages: **1** Uploaded File:  
**C:\Documents and Settings\CA18071\Desktop\UI\ABSTRACT.pdf**

## ABSTRACT

### *TLDS 360: Tennessee Longitudinal Data System 360 Degree View of the Student.*

The Tennessee Department of Education (TDOE) and the state of Tennessee propose to build a longitudinal student data system that will push the frontier in collection and utilization of P20 data and promote improvements in program administration and educational outcomes. The initiative will significantly increase teacher, school, and district-level use of near real time student data by employing sophisticated, as yet underutilized longitudinal data for predictive and retrospective identification of student achievement growth and academic risk factors. The project will complete the TLDS P20. TDOE's P12 LDS, supported by a 2006 Institute for Education Sciences grant, is already well developed. However, the current TLDS falls short of a complete, efficacious P20 information system. TDOE and its partner, the University of Tennessee Center for Business and Economic Research (CBER), will collaborate with the Tennessee Higher Education Commission (THEC) and the Department of Labor and Workforce Development (L&WD) to expand the P12 LDS to a P20 system. Tennessee's current P12 LDS and business intelligence functions satisfy basic expectations for interoperability and data delivery to local, district and state educators. Proposed improvements to existing business intelligence systems will dramatically expand the scope and depth of accessible data while maintaining stringent security standards. The project will develop a secure and adaptive database architecture that will integrate academic data on teacher/student relationships, attainment, course completion, and test scores, as well as data on health, children's services, mental health, and delinquency. This project envisions and plans to execute what is coined as *TLDS 360: Tennessee Longitudinal Data System 360 Degree View of the Student*. TLDS will incorporate data elements from other child-serving departments and will facilitate more robust characterizations of health, social welfare and behavioral conditions that influence students' progress from earliest child care, through P12 and higher education, and into the workforce.

The TDOE as the lead agency has partnered with CBER, an external academic research organization, which will serve as the conduit for receiving, aligning and coordinating data for reporting and research protocols to achieve project outcomes. As an established third party contractor, CBER is prepared to integrate data from SAS, Inc. (the vendor for Tennessee's Value Added Assessment System) with data from TDOE, THEC, L&WD, as well as other child-serving departments and agencies. This coordinated approach will permit near- and long-term educational, administrative and research issues to be addressed, including the development of Early Warning Indicators and analyses of teacher effectiveness.

TLDS Governance will be a high-level organization representing all of the partner agencies committed to the success of the project. Initial Project Charters from relevant departments reflect commitments to negotiate data sharing agreements, though much of the data from TDOE, CBER, SAS, Inc., THEC, L&WD, and the Department of Human Services is already available for inclusion in the P-20. The project proposal capitalizes on the current TLDS foundation and positions it for expansion as a nationwide model for multidisciplinary support of student achievement. It corresponds to data system requirements for potential projects funded by Race To The Top grants.

# Project Narrative

## Project Narrative - Project Narrative

Attachment 1:

Title: **Project Narrative** Pages: **24** Uploaded File: **C:\Documents and Settings\CA18071\Desktop\UINARRATIVE [1].pdf**

## *6. Project Narrative*

### TLDS 360: Tennessee Longitudinal Data System 360 Degree View of the Student

“If we remain wedded to the way education is currently provided we cannot imagine other ways...we need some imagination, some fantasy, some new ways of thinking - some magic in fact.” Hedley Beare, Professor of Education, Melbourne

'We imagine a school in which students and teachers excitedly and joyfully stretch themselves to their limits in pursuit of projects built on their vision...not one that succeeds in making apathetic students satisfying minimal standards.' Vision for Education: The Caperton-Papert Platform, Seymour

#### 6(a) Need for the Project

Tennessee perennially ranks near the bottom across the states in per pupil spending on elementary and secondary education. This low level of spending is linked, in part, to relatively low levels of per capita income and thus relatively low tax capacity. Accordingly, the state must ensure the greatest possible return to each tax dollar it generates. The state economy has long relied on manufacturing as the foundation of its economic base, but manufacturing jobs continue to disappear. This is not a new phenomenon—in 1968, more than one-third of Tennesseans were employed in manufacturing, but by 2008 only one in ten workers held a manufacturing job. The ever-increasing pace of economic transformation means the state has to work harder and harder to promote economic opportunity.

Education is the cornerstone of economic security for people and families and the economic development communities. Tennessee needs to improve educational outcomes and teacher effectiveness, promote efficiencies in public service administration and delivery, and ensure accountability with the public at large. The project proposed here would put important information in the hands of teachers to do their jobs better and enable research and reporting to meet these needs. In addition, the breadth of the proposed program of work—the length of the educational continuum captured in the database, linkages to state agencies outside of education and data interoperability—would serve as model for other states developing longitudinal education databases.

#### Background

Tennessee initiated formal development of a longitudinal data system in 2006 when TDOE received a Statewide Longitudinal Data Systems (SLDS) Grant from the Department of Education Institute of Education Science (#R372A05127). The intent was to enable the state to design, develop, and implement a statewide longitudinal data system, referred to as the Tennessee Longitudinal Data System (TLDS), to efficiently and accurately manage, analyze, disaggregate, and use individual student data, consistent with the Elementary and Secondary Education Act of 1965, as amended (20 U.S.C. 6301 et seq.).

TDOE conducted in-depth research into its K-12 information system environment, national standards and best practices in the field, and reviewed status of work already under way to

address many of the grant objectives. TDOE engaged Oracle Technologies for the data warehouse infrastructure and Business Intelligence (BI) Reporting Tool and implemented a design bringing together a significant amount of education data in a common environment. TDOE also established procedures that have improved confidentiality of student records, implementing a new unique student identifier, so cross-system and cross-year data are immediately accessible. The process for assigning unique student identifiers does not involve school district interaction. Numbers are automatically generated at the State Education Agency (SEA) and downloaded into school district databases. Students' confidential information is stored in a separate database and only accessed when data are imported into the warehouse. In compliance with Family Educational Rights and Privacy Act (FERPA) regulations, TLDS provides student-level data for longitudinal analyses without disclosing student identifying information. The warehouse serves a range of users who report varying degrees of satisfaction with the current BI tool. A variety of users obtain data from the warehouse, including TDOE staff, Tennessee Higher Education Commission (THEC), external researchers, managers, and policymakers.

Tennessee's initial SLDS grant also facilitated and prompted connections between K-12, higher education and workforce data. Through a partnership among TDOE, THEC and CBER, a teacher data warehouse was created utilizing the TDOE warehouse data and connecting TDOE data on teacher placement with THEC data on teacher preparation and CBER workforce data. The creation of the teacher data warehouse provides a platform for the next phase of TLDS growth.

Tennessee envisions the next iteration of TLDS as a primary driver of data and analysis to enhance the state's efforts on teacher effectiveness, supporting a P-20 system, revamping and integrating standards and assessments and better aligning targeted interventions. This project will allow these outcomes by addressing four significant needs of the state: First, to train Local Education Authorities statewide to fully utilize the K-12 SAS-based data and expanded data available through the P-20 system; second, to complete its P-16 and P-20 system; third, to advance to a 360 degree view of its students (8. *Appendix A2*); and fourth, to enhance performance across state agencies.

#### (1) Fully utilize K-12 TLDS data.

It has been well documented that educational value-added assessment accounts for any influence of socio-economic factors that are consistent across time, *if* the assessment is based on multivariate, longitudinal analyses of each student's entire vector of prior academic achievement scores. Tennessee has an established history of research about accelerators and impediments to student progress already running at the teacher level. Interface allows authorized users to access results from analyses that measure the impact of districts, schools and teachers on student academic progress by subject level and by achievement level of students, plus individual student projections to a variety of academic milestones students face. Thus, these results offer educators the opportunity to focus on effective educational delivery, which will result in appropriate academic progress for all students.

However, there are unexpected environmental conditions that can alter academic trajectories of individual students. Examples: Entry into protective custody, incarceration of a parent, family lost jobs, death or serious illness of a parent or other care giver. Any of these would most likely have an unsettling effect on a student's capacity to engage in appropriate academic behaviors.

Building on expertise accumulated through years of measuring of schooling influences on student academic progress and making projections for future student success, this proposal will link measurement expertise across state agencies to identify combinations of strategies that are successfully neutralizing currently unpredicted external forces for students. A 360 degree student view (8. *Appendix A1* and described more fully in (3)) and dashboards to support this proposal go beyond information sharing across state agencies. Dashboards will overlay the state's evaluation of coordinated inter-agency efforts with empirical research tied to student outcomes.

Tennessee has in place an infrastructure to deliver to educators indicators collected within the school environment through a user-friendly interface. Thousands of Tennessee teachers and principals already have responsibility-specific accounts to a secure-access drill down delivery system. With the state's commitment to increase access to all appropriate school personnel by fall 2010, the TVAAS restricted website is a reasonable, cost effective solution to delivery of the 360 degree student view for educational uses. Missing from this existing delivery is access to student/family data from other state agencies that can trigger additional educational support for students whose academic success is threatened or potentially compromised by unexpected events occurring outside of education. Proposed additions to the existing infrastructure will increase the capacity to do the following:

- 1) Provide principals and teachers with an early warning when situations that might impede student performance occur and activate a monitoring of a student's indicators of academic engagement (e.g., grades, discipline, and attendance). This would allow for additional intervention, should evidence accumulate to warrant it. Individual student multi-agency transfer into the system will trigger the following:
  - a. Appropriate principal/teacher notification of change in student environmental/family status (Phase I)
  - b. Appropriate automated monitoring of academic environment behaviors to assess accumulating risk (Phase I)
  - c. Revised individual student probabilities for academic success, given an individual student's change in status. (Phase II)
- 2) Provide feedback to other appropriate state agencies regarding specific future academic risks that might exist due to an individual student's change in status (e.g., failure in grade/missing graduation target). (Phase I)
- 3) Provide aggregate school level feedback to the school system so system level supports can be increased for specific schools as level of severity of potential academic failure increases. (Phase I)

- 4) Provide aggregate school system level feedback to appropriate state agencies regarding counts of student/family overlapped services to improve efficiency of service delivery. (Phase I)
- 5) Provide empirical evidence of whether integrated delivery of services has successfully impacted students' academic performance so the unexpected environmental intrusion is neutralized. (Phase II)
- 6) Identify inter-agency actions that were successful and actions that need improving. (Phase II)
- 7) Link to forecasting for future revenue requirements. The University of Tennessee Center for Business and Economic Research (CBER, the external research partner for this project) and SAS Institute partnership will also improve forecasting capacity within the state regarding need for targeted differentiated future funding to focus on measured effective interventions for highly at risk students. (Phase II)

Phase I will be accomplished in the initial year and Phase II will be added after appropriate research using data collected in Phase I.

(2) Complete TLDS P-16 and P-20: The second purpose of this application is to expand and improve TDOE's P -12 TLDS to a P-20 system to allow data to be collected, archived, combined, analyzed and used to promote data driven analyses and interventions for continuous improvement for learning standards, curricula, instructional processes and programs, professional development, post secondary educational programs and workforce program improvements. Combination of the current TDOE LDS, THEC systems and other data sources will track an individual's academic and educational achievement, and also post-education and career experience. System tools will support practitioner and researcher needs and allow for retrospective (e.g., determination of which curricula were effective) and prospective uses of data (e.g., projections of future capacity and curricula requirements in the education system, predictive studies of student outcomes, and early warning signals for achievement challenges). The current status of the state's TLDS is displayed in *10. Appendix C. —Current Status of State's Longitudinal Data System*.

A core element of TLDS—the P-20 student-level database—will be an invaluable tool that can be used to address an array of important education, administrative issues and policy questions. In the context of teacher effectiveness, only standard metrics like student progression, dropout rates, test scores and value added assessments can be utilized. Extending P-20 to include child care prior to pre-kindergarten and to workforce outcomes, like employment status and earnings, will accommodate a richer analysis of teacher effectiveness by controlling for characteristics and experiences of children before they enter formal schooling and tracing through workforce outcomes that transpire after graduation.

Data Quality: The TLDS will implement a software application data cleansing tool ( *10. Appendix A2*) through a third party trusted vendor which will securely move certain student records from a sending agency to a receiving agency authorized by FERPA. This system will track a student's lifecycle. When a student transfers from one district to another, that data will be moved from

one LEA to the other LEA electronically – immediately and securely. The same will be true when a student moves to Postsecondary education. This data cleansing tool will also assist with student drop out data. Tennessee’s dropout rate may be reduced because there will be better tracking of interstate enrollment.

This tool supports serve both the needs to PK-12 and Postsecondary systems. The system translates data from PK-12 sets into formats preferred by Postsecondary users, such as PESC High School Transcript XML or SPEEDE EDI.

P-16. The Tennessee Higher Education Commission (THEC) currently has a unit-record student information system with data back to 1995. The information comprising this system includes enrollment, financial aid, completions, and lottery scholarship information. This student information system has served THEC well in research and reporting on policy issues limited to public higher education.

THEC enjoys excellent working partnership with Tennessee Department of Education. The two agencies have collaborated on many research projects in the past. Having the two data systems separated, however, has limited the types of research studies that have been conducted up to this point. By merging the data into a statewide longitudinal data system, a greater understanding of education in Tennessee will be achieved.

Some of the policy questions that can be answered with the statewide longitudinal data system include:

- How do the state’s high school graduates persist and perform in higher education?
- What pattern of high school course-taking leads to success in higher education?
- What is the predictive value of the state’s tenth grade assessment?
- Who needs developmental education courses in reading, writing and math?
  - How is this related to high school course taking?
  - How is this related to tenth grade test results?
  - How is this related to scores on the GED examination?
- How do under-represented populations persist and perform in higher education?
  - Adults
  - Males
  - Low-income
  - GED recipients
  - Racial/ethnic minorities
- How do the findings inform high school and adult education reform, including development of college-ready standards in the key academic skill areas?
- How do financial aid packaging practices affect college choice, persistence and academic success of low-income students?
- What are the actual graduation rates, adjusted for mobility across systems and other states?
- How do various student retention strategies impact student success?

- What is the employment and wage status of graduates by program of study and degree level?
- Are we graduating sufficient numbers of students in fields with high job vacancy rates?
- How do graduates of various types of teacher preparation programs perform?

The education data warehouse contributes to our store of substantive knowledge and it will increase the speed and routinization with which cross-cutting projects can be completed, leading to increased capacity for research and reporting that is P-16 in nature.

eTranscripts: Since student transcripts are the quintessential longitudinal student record, the most significant impact a state education agency and the U.S. Department of Education can have on the quality of the nation's longitudinal education records is to ensure that schools have the capacity to create and exchange correct, certified and timely student records. TLDS' eTranscript application will permit high schools, the state, legislators, postsecondary institutions and the public to assess where Tennessee high school students apply to college, where they are admitted, and where they actually attend. This system will also simplify transfer of academic records between high schools when students move from school to school, and will allow postsecondary institutions to quickly update academic records for newly admitted students. With appropriate approvals, transcript data from colleges can even be sent back to originating high schools so school districts can assess their own college preparation efforts. Recipients can make faster and better informed decisions about incoming individuals, such as in cases of college enrollment and workforce readiness.

P-20: With completion of P-20 TLDS, Tennessee Labor and Workforce Development (L&WD) will have access to quality decision making data to substantiate the value of federally funded programs within its organization. These data will allow L&WD to demonstrate what transpired in students' lives after completing their education. Programs include, but are not limited to, completion data for GED Programs, Adult Literacy Programs, Training Grants, Pell Grant Applicant Information, Work Force Training, English as a Second Language Training, Unemployment Insurance data, and Tennessee Teens to Work data.

Through successful collaboration with L&WD, TLDS P-20 will boast the abilities of:

- Student Identification Element – tracking individualized data beginning at the fundamental level through an educational student unique identifier throughout their education experience and into the labor force. This identifier will be used across P-12, Community College System, University System, Workforce Tracking and more.
- Adhering to Data Standards - Postsecondary and Higher Education typically involve a high percentage of students whose P-12 education occurred outside the state where the institution is based. TDOE's Master Person Index ((MPI, described in 6(b)(iii)) and L&WD will address this issue by developing algorithms to match student data elements across multiple databases and data fields.
- Subject and Skills Data – L&WD maintains data on individuals and students. The P-20 TLDS will have the ability to consistently manage subjects, skills, intensity and other information regarding courses consistently across the entire system.

- Managing Complexity – Many students are dual enrolled whether it is P-12 to P-16 or P-16 to the Workforce. New skills will enable citizens to remain successful contributors to their communities and the world. Many of these individuals go on to become teachers in the P-12-P-20 System.
- Systems Interoperability – Interoperability will be addressed through Data Security sharing agreements and use of BI tools that allow distraction and reporting of data from multiple databases for consolidation purposes via a business intelligence tool selected during the grant. Presently student level data is available through multiple heterogeneous, autonomous, distributed data sources containing related and duplicated information. Resolution for solving heterogeneous multi-database systems requires discovering and managing certain types of knowledge facts. The TLDS P-16/P-20 will operate from a framework for managing knowledge for interoperable access and use of heterogeneous database systems. The framework will utilize knowledge bases at the integration and component sites. Key issues for resolving heterogeneity are acquisition of appropriate metadata and discerning relationships among constructs of different database schemas. Management of this knowledge in a modular and efficient way is crucial for building an interoperable database system. A multi-database prototype system utilizing the techniques in this proposal is being developed.

(3) Advance to a 360 degree view of students. Tennessee's proposal is to go much further than extension of TLDS to P-16/P-20. It is to develop, provide appropriate access to, and effectively use a comprehensive TLDS to achieve a 360 degree view of students. Many conditions in addition to students' academic experiences influence learning, among them: of the almost 1.5M student age Tennesseans under age 18, over 100,000 (9.6%) have a disability; about 350,000 (38.8%) receive or are eligible for Free or Reduced lunch; 8.4% get Families First grants; 27.8% get Food Stamps; and over 670,000, almost 40%, are on TennCare. Child abuse and neglect contribute negatively to the learning experiences. Unfortunately, recent statistics indicate that 11.6% of the reported cases of abuse and neglect were substantiated. (2009 Kids Count Data Book)

In this project, TDOE will bolster TLDS significantly with information from other child serving agencies and the adult Department of Correction in order to inform best practices and help reduce achievement gaps during the near- and long-term. The current TLDS and expertise for data management at CBER create a tremendous base from which the state can align requirements for data transfer, identify data elements and expand utility of the system statewide for informed policy analyses.

The near- and long-term results of the project will permit analyses that validate or refute the extent to which untoward conditions affect educational attainment and other life experiences when matched with student/teacher data about academic achievement. An interagency database built around TLDS will allow analysis of the effectiveness of programs on recidivism, post-prison pursuit of education, and ultimately, labor market outcomes like earnings and unemployment rates.

In addition to THEC and L&WD, agreements will be negotiated for relevant data sharing with these child-serving departments and agencies:

- Department of Children's Services (DCS)
- Department of Health (DOH)
- Department of Human Services (DHS)
- Department of Mental Health and Developmental Disabilities (DMHDD)
- Department of Correction (DOC)
- Bureau of TennCare (TCB)
- Tennessee Commission on Children and Youth (TCCY)

Lead responsibility for achieving data sharing agreements will reside with a policy analyst in the Governor's Office of Children's Care Coordination (GOCCC), serving as Governance Manager for the Project. GOCCC leads and facilitates cross-departmental coordination, multi-departmental collaboration, policy analyses and system reforms. It is charged with translation of science into policy.

The sequence and integration of the service aspects and conditions children experience are depicted in 6 (c) Timeline for Project Outcomes.

Opportunities for policy informed research are limitless under this model of multi-departmental and interagency information transfer. Constraints include federal and state confidentiality rules. However, constraints of FERPA are mitigated by a relationship with CBER, an established trusted third party contractor. HIPAA Business Associate agreements will be negotiated sequentially with DOH, TennCare, and DMHDD, which also has federal substance abuse laws to consider. The state will work within these constraints and others to contribute to a rich data base for analysis by sequencing the order in which agreements are negotiated from easiest to most difficult to achieve.

Multi-departmental data will reside at CBER, which shares fiber optic connectivity with TDOE, THEC, Office of Information Resources (OIR) and agencies depicted in *8. Appendix A3*. CBER is partnered with DOE as the external research organization for this project. CBER has developed other integrated data bases (including with L&WD, DHS, THEC and DOE) and has an extensive track record in conducting and supervising research projects including annual and long-term economic and fiscal forecasts for the Governor and the state; research on education issues and funding and related public service delivery; linkages between higher education and the economy.

Agreements among TDOE, child serving departments and CBER to collaborate on policy issues and data sharing will permit ability to determine, among other outcomes (1) best investments relative to IDEA Part C early intervention services, PreK and Child Care on different levels of academic achievements and how different methods of delivering education affect these outcomes; (2) how conditions and situations such as health care, foster care and home visitation services and other factors affect educational performance; (3) how, through information exchange, each department can perform its functions more effectively by

structuring its relationship to TDOE and Local Education Agencies to support children to achieve their highest potential; (4) how long-term contributions to education, health, and economic returns to the state differ among cohorts of discreet groups such as children in foster care, in children's special services, children eligible for child care subsidies, gifted children, and children in urban versus rural locations.

(4) Enhance Performance Across State Agencies: TLDS P-20, when linked to other agency data, will support improvements in program administration and policy, both within DOE and across state government in Tennessee. These improvements can reduce taxpayer costs, enhance service delivery, support program accountability, and promote better educational and workforce outcomes. Once completed, the integrated interagency database can help reshape the way government works in Tennessee.

Opportunities for improvement of program administration and program outcomes can be placed in four broad and potentially overlapping categories.

- (1) Administrative Improvements: State government agencies in Tennessee have migrated a substantial flow of data to electronic systems. But many paper legacies remain in the state's information and management systems, and these systems are not linked in a fashion to support administrative decision making. This project would overcome that obstacle.
- (2) Accountability: TDOE has two primary systems of public accountability. The first is TVAAS. The longitudinal database underlying TVAAS supports a linkage between teachers and students and enables identification of the educational value added to the student by the teacher. This system currently relies solely on school-level data. The premise of TVAAS is that background characteristics of a student—raw intelligence, family characteristics, peer influences and other factors—are stable and consistent and therefore do not affect changes in student performance from year to year, i.e., value added from the education system. In reality a child's personal and social circumstances are subject to ongoing change. For example, a third grader's parents might go on welfare, a parent might be imprisoned or the child might be placed in the custody of the state and then a foster home. Certainly these changing individual circumstances can be expected to affect a child's performance in school, and TLDS allows these other factors to be fully integrated into the value added model.

An interagency database built around TLDS will allow TVAAS to be recast to include information on the changing circumstances of a child. This will improve the accuracy of the system in evaluating teacher effectiveness. It will also allow identification of risk factors for students, enabling more effective interventions to promote student academic performance and wellbeing.

A second accountability system is the Report Card on Tennessee Schools, produced annually by DOE. This report, and its companion supporting resources on the Internet, includes state, district and school-level information on achievement, demographics, discipline and educator preparation. However, data are limited to PreK-12 education. There is currently

no counterpart report card for post secondary education, Department of Children's Services' schools and Youth Development Centers, Department of Correction education and training programs and other agency educational programs.

The project proposed here will enable development of a Statistical Abstract of Education in Tennessee that would encompass the full range of educational services provided by the state. This same reporting mechanism could utilize interagency data to summarize linkages between educational outcomes and other outcomes, including workforce status and utilization of public services. For example, what do graduates of Tennessee high schools earn relative to graduates from the state's community colleges and universities? How do unemployment rates for high school dropouts compare to unemployment rates for high school graduates? What is the educational attainment status of Tennesseans who utilize services from TennCare and Families First?

- (3) **Teacher Effectiveness and Student Growth:** Teachers are perhaps the most influential factor in affecting student performance. As noted above, TVAAS already gauges teacher performance. Linking TLDS to workforce and public service utilization outcomes can enrich the scope of TVAAS.
- (4) **Outcomes Assessment:** Education and child related services are costly to provide and returns to the state's investments in these services are not well known. An interagency longitudinal database will allow for rigorous examination of program effectiveness across state government in Tennessee. For example, DCS provides interventions and services ranging from foster care and adoption to schools, Youth Development Centers and health services. Other services to the same child might be provided through DHS and TennCare. Controlling for student and family/caregiver characteristics, how do these state services affect a child's educational outcomes and longer-term status in the labor market?

Another example is DOH and TennCare, which provide services to communities and families, including programs to reduce diabetes and promote physical fitness, and specific health care services to individuals within a family. These programs promote individual wellness, in turn facilitating participation in formal educational programs and the labor market. The effects of these services on educational investments and labor market outcomes can be assessed when coupled with data from DOE, THEC and L&WD.

The longitudinal database can also be used to examine the role education plays in affecting other outcomes. For example, research has shown that parental education, especially educational attainment of mothers, has an important bearing on child wellbeing. Interdepartmental data would allow analysis of the impact of maternal education, public service utilization and workforce status on infant mortality rates, vaccination rates, teen pregnancies, and take-up rates for programs like WIC and child special services.

The four core components of this project—enhanced content and utilization of the current sophisticated TLDS capacity by teachers, schools, and school districts; completion of TLDS to a

P-20 system; alignment of information from other child-serving departments with that of DOE to achieve TLDS 360, and enhanced performance across state agencies—will permit the state to move to a new level of competency relative to influences on student achievement. The project is a major puzzle piece contributing to the state’s Race To The Top proposal. It will support School Improvement Grants and the Teacher Incentive Fund. It will inform planning for Investing In Innovation when the RFA for that program is developed.

It corresponds to assurances of the State Fiscal Stabilization Fund. Relative to

- **Teacher Effectiveness:** The project will provide teachers with data dashboards that will provide not only standard educational metrics and value added assessment information but also information from other child serving agencies that influence a student’s ability to learn, generating a 360 degree view of the student.
- **Support of a P-20 System:** The project expressly links the current TLDS with THEC to answer the policy questions above that benefit both Education and Higher Education. TLDS will link L&WD’s programs such as data for Pell Grant Applicant Information, GED Programs, Work Force Training, Unemployment Insurance data, Adult Literacy Programs, Training Grants, English as a Second Language Training, and Tennessee Teens to Work data.
- **Standards and Assessments:** TLDS has an established history with TVAAS of providing multivariate, longitudinal analyses of every student’s entire set of achievement scores, which are widely used by teachers and throughout the education system. This project builds on the current TLDS and strengthens it.
- **Targeted Interventions:** By aligning data from the child-serving agencies with the TLDS to create a more comprehensive picture of student cohorts, schools will be better able to close achievement gaps among students and implement best practices.

Additionally, the project takes into consideration criteria for one of the stakeholder collaborators, Department of Health’s proposal to the Centers for Disease Control and Prevention Recovery Act funded program, “Communities Putting Prevention to Work”, the purpose of which is to promote broad-based policy, systems, organizational and environmental changes in communities and schools.

#### 6(b) Project Outcomes Related to System Requirements and Implementation

TLDS will integrate heretofore-scattered data silos to better connect teachers, principals and superintendents to data about their students, improve operations of DOE and participating agencies, advise education policy and management, and investigate the 360-degree-impact of education on lifecycle outcomes. These objectives require three major outcomes: (i) adaptive and secure data architecture (ii) rich, multidimensional data on students, teachers, and schools, and (iii) access platforms for local school systems, policymakers, researchers, and the public. Proposed products and features related to (i) through (iii) are outlined below, along with their contribution(s) to specific data system capabilities and elements. See section 6(c) *Timeline for Project Outcomes* and 8. *Appendix A4: Itemized Timeline by Outcome* for detailed timing of subtasks related to each outcome.

#### 6(b)(i) System Architecture Products and Features

TLDS architecture refers to the entire framework supporting integration, storage, and management of student data. Rather than construct architecture components around available

data, TLDS architecture will be an outcome in and of itself, designed to be forward-looking and adaptive to new data sources and collaborative opportunities with other information systems and states. TLDS architecture will receive and integrate data from multiple sources and information technology systems, and transform data into a foundation for reporting and research. Much of the architecture will be developed and implemented through Year 1, and TLDS will be ready to store integrated data early in Year 2. Some architecture elements may be modified as additional data is integrated throughout Years 2 and 3, with continuous improvement thereafter.

Contribution toward required data system capabilities and elements: prudent architecture design and implementation will lay the foundation for all data system capabilities and elements, particularly the internal quality and integrity of data.

1. Security features: before sensitive data are merged, security systems will be iteratively designed and tested for data receipt, storage, dissemination, backup, and recovery. Critical first steps will be to (1) identify best practices in other SDLs, and (2) advance those best practices with guidance from CBER, the Office of Information Technology at the University of Tennessee, SAS, Inc., and integrated health information systems currently being developed in Tennessee. Security will be continuously evaluated and improved throughout the life of TLDS.
2. TLDS functional requirements (product): TLDS directors, managers, and staff will define and document the necessary functions of TLDS.
3. Capital products: hardware and infrastructure will accommodate security needs, high-volume storage, and high-speed transfer. Servers and storage will be in place at DOE and CBER throughout development and operation phases, and will be upgraded as needed.
4. Data taxonomy, structure, and documentation features: TLDS staff and subcontractors will design structural components of the database itself in accordance with functional requirements and NCES standards and guidelines for LDS interoperability, metadata, taxonomies, and documentation.
5. Data import design features: TLDS staff and subcontractors will design and implement data import pathways, in accordance with taxonomies, data integrity controls, and governance rules.
6. System evaluation products: a web-based feedback application will connect data warehouse staff with intermediate- and end-users to support continuous improvement. This product will allow bug reports and other complaints to be reported and resolved systematically. Additionally TLDS management will oversee regular, internal reviews of architecture features, and solicit external reviews from stakeholders in local, state and federal organizations.
7. Internal audit features: audit procedures will be designed to seek, report, and correct likely errors in the data. Audits will be added or modified as additional data are incorporated.
8. Incoming data integrity features: Business Intelligence systems with existing LDS elements will be upgraded to enhance internal operations and ensure that audited and cleaned data are delivered to the broader TLDS. Data warehouse staff will interact with DOE, SAS, Inc., and participating agencies to improve data delivery mechanisms and the quality of incoming

data. Where possible, data integrity procedures, middleware, and metadata definitions will be implemented at the agency level. The Steering Committee (described in section 6(d)) will (1) determine the degree to which agencies' information technology can be efficiently adapted to meet TLDS data needs, and (2) determine the most efficient pathways for data transfer between agencies and TLDS

#### 6(b)(ii) Data Integration Products and Features

Data will be integrated in phases, following the resolution of security protocols and implementation of TLDS architecture (see *8. Appendix A3: TLDS Outcomes* for a stylized diagram of data inputs and outcomes; see section 6(c) and *8. Appendix A4 Itemized Timeline, By Outcome* for specific timelines.) During Phase 1, longitudinal data systems in service at DOE, CBER, SAS, Inc., and other partnering agencies will be merged to produce a P-20 longitudinal data system that meets and exceeds many required capabilities and elements of grant-funded data systems. This phase is expected to run through the first quarter of Year 2. During Phase 2, public service agencies with initial agreements to participate in TLDS (see *11. Appendix D-- Letters of Support*) will formalize data sharing agreements and begin contributing data to TLDS. Also during Phase 2, an advanced student identification system (referred to below as a master person index, or MPI) will be utilized to match individuals across otherwise irreconcilable datasets. MPI matches will complete the P-20 LDS and facilitate integration of Phases 2 and 3 data. The MPI and Phase 2 data will be integrated during Year 2. During Phase 3 and Year 3, data from additional agencies will be integrated pending finalization of data sharing agreements.

Contribution toward required data system capabilities and elements:

- Student-level longitudinal data from preschool through postsecondary education and into the workforce.
  - Link between students and teachers.
  - Teacher credentials, including experience, certification, and education.
  - Unique statewide student and teacher identifiers that mask sensitive, identifying information.
  - Student enrollment, demographic, and program participation information.
  - Student mobility and attrition information.
  - Annual test records for students.
  - Information on untested students.
  - Student-level course enrollment records and course grades.
  - Student-level college readiness (ACT) scores.
  - Student-level data on transitions to postsecondary institutions and postsecondary attainment.
  - Internal quality and integrity of data.
- Individual-level longitudinal data on public service utilization. These elements are beyond the scope of the required capabilities and elements but represent tremendous added value to Tennessee's current P-12 LDS and proposed Phase 1 P-20 LDS.

1. Phase 1: P-20 TLDS. Tennessee's existing LDS elements are housed in isolated information technology and governance systems, and no previous attempt has been made to integrate them into a substantially more valuable and complete LDS. During Phase 1, data from pre-K, K12, postsecondary, and workforce information systems will be merged within a secure and unified architecture, in accordance with a collaborative model of governance. Specific data features and products related to this Phase of TLDS development are itemized below.
  - Unique student identifier and masking features. TLDS will use standardized identifiers (state- and district-assigned student IDs, Social Security numbers), names, and unchanging demographic characteristics to link individuals' data longitudinally and across reporting units. Then, a unique identifier will be generated for each individual. This identifier will have no meaning and entail no privacy risk outside of TLDS. Following successful identification, some private data (including Social Security numbers, if applicable) will be masked.
  - Integrate existing longitudinal elements from DOE, CBER, TVAAS, and NCES to form a preliminary P-20 LDS (product). All data elements, unless noted otherwise, are expected to recur on an annual or more frequent basis.
    - Existing DOE data, all dating back to 2006: K12 student achievement, enrollment, demographics, and other available information (disciplinary, extracurricular, and college readiness, for instance) from the Education Information System (EIS) and Statewide Student Management System (SSMS); K12 teacher assignments and credentials from the Personnel Information Reporting System (PIRS); K12 teacher-student match.
    - Existing data at CBER: six unique datasets and surveys on child care and public welfare services, some dating back to 1996; teacher assignments and credentials dating back to 2001 from the CBER-assembled Teacher Education Data Warehouse (TED); postsecondary student data from THEC, representing all higher education institutions in the State (including public and private two- and four-year colleges and universities) and dating back to 1997; earnings and employment data from statewide Unemployment Insurance (UI) records, dating back to 1995. Note that multi-state collaboration is possible through external THEC and UI relationships.
    - Existing TVAAS data (maintained by SAS, Inc.): K12 student achievement, enrollment, and demographics, dating back to 1990; Teacher-student match for tested courses, dating back to 1990; ACT scores, dating back to 2000.
    - Existing NCES Common Core of Data: School- and district-level data on enrollment, demographics, achievement, attainment, and finance, with some fields dating back to 1986.
2. Phase 2: P-20 TLDS Enhancements
  - Develop and implement the Master Person Index (MPI). The MPI feature will improve on the Phase 1 identification system and expand the scope of TLDS to include data without Social Security numbers and other common identifiers. The MPI will permit the seamless integration of new data in Phases 2 and 3, and will provide robust validity checks of Phase 1 identifiers. The MPI will be developed by the State of Tennessee Office of Information Resources (OIR) simultaneously with development of TLDS.

- Integrate data from agencies with formal agreements to participate in TLDS. See *11. Appendix D--Letters of Support* and initial Project Charters. Anticipated highlights from Phase 2 agency data are described below. Actual Phase 2 data will be subject to final data sharing agreements and may include additional agencies not named below.
    - Department of Health: birth certificates, immunization records, and children's special services.
    - Department of Human Services: free or reduced lunch, child care center quality, child support, and welfare beneficiary information
    - Department of Children's Services: foster child indicator, foster case information, juvenile justice involvement and youth in transition data.
3. Phase 3: P-20 TLDS Enhancements (ongoing)
- Integrate data from additional agencies, pending formal agreements to participate in TLDS. Anticipated highlights from Phase 3 agency data are described below. Actual Phase 3 data will be subject to final data sharing agreements.
    - TennCare (Tennessee's Medicaid program): enrollment and benefits for eligible children and families.
    - Department of Corrections: offense histories, recidivism and probation outcomes: GED outcomes while incarcerated, juveniles in the general correction population and offenders up through P-20.
    - Labor and Workforce Development: unemployment compensation payments.
    - Department of Mental Health and Developmental Disability: outcomes for early intervention programs and system of care enrollees.

#### 6(b)(iii) Reporting and Research

TLDS, as proposed, will dramatically improve the depth, scope, and quality of data available to schools, Local Education Authorities (LEAs), the public, DOE, and partnering agencies. Business intelligence features and restricted access portals will be in place by the end of Year 2, and expanded to include additional data and public portals thereafter. In addition to operational efficiencies, TLDS will facilitate rigorous research and policy analysis. Research support features and TLDS access protocols will be in place by the third quarter of Year 3. Reporting and research outcomes, as well as supporting features, are described below.

#### Contribution toward required data system capabilities and elements

- Web-based access to detailed student data available for teachers, principals and superintendents.
- Enables exchange of data among agencies and institutions within the State and between States so that data may be used to inform policy and practice.
- Timely reporting to parents, teachers, school leaders, and the community at large.
- Facilitate *EdFacts* and State Fiscal Stabilization Fund reporting to the U.S. Department of Education

1. Business intelligence (BI) features:
  - Aggregation and access rules: Members of the TLDS Steering Committee (see section 6(d)) will negotiate aggregation and access rules between data sources and integrated data users. The scope and depth of data access will be user-specific and subject to data sharing agreements, aggregation rules, metadata definitions, and abundant security measures, all of which will be in strict accordance with FERPA, HIPAA, and other applicable laws. Aggregation rules and secure, user-specific access will be programmed and managed by the BI software vendor.
  - BI software is a critical layer between physical data and web-based portals. Current DOE BI systems were launched following the 2006 receipt of a Statewide Longitudinal Data System grant, #R372A05127. This software moved the State's longitudinal data system forward and is a valuable resource for Tennessee educators. Current BI systems, however, are inadequate to support the public and inter-agency products outlined in this application (see "Web-based Portals" below) since data are only available to two individuals within each Local Education Agency (LEA). Funds awarded under this grant will be used to (1) upgrade current DOE Oracle databases and (2) tailor state-of-the-art SAS, Inc. software to improve on the reporting capabilities of the existing BI system. These efforts will facilitate data exchange among agencies, within DOE, among LEAs, among schools, and between DOE and the public. A web-based portal is currently available through SAS for very limited data. The project will explore using this platform to expand dramatically data available to teachers, principals and superintendents throughout all LEAs in Tennessee.
2. Web-based portals (products): BI software will facilitate presentation-layer interfaces for schools, LEAs, the public, agencies, and DOE. End-user interfaces will be web-accessible dashboards to TLDS data. Currently, SAS, Inc. maintains secure portals to student test records, projections, and other TVAAS data. TLDS managers will leverage this resource to expand the accessibility and scope of current web-based portals.
  - Public portals: these portals will facilitate public reporting and improve the ease and accuracy with which families and community members can access aggregate education information. Products will include statistical abstracts and interactive tables on school- and district-level enrollment, socioeconomic indicators, achievement, personnel, and finance.
  - Agency portals: secure data will be available to participating agencies (subject to data sharing agreements). For example, a foster child's case manager at the Department of Children's Services will be able to determine if a child's education records followed him to his new school. These portals will generate inter-agency synergies, improve efficacy of public service provision, and add tremendous value to Tennessee's existing longitudinal data systems. SAS, Inc. will host webinars to train agency personnel on the effective use of TLDS dashboards.
  - School, LEA, and DOE portals: secure data will be available to school system administrators, principals, teachers, and families. Portals will be designed to aid school and district operations. In-service TVAAS dashboards developed by SAS, Inc. are user-friendly interfaces designed to deliver timely, important data to educators. TVAAS

restricted-access portal is a reasonable, cost effective mechanism for delivery of the 360 student view for educational uses. Thousands of Tennessee teachers and principals already have secure, responsibility-specific TVAAS accounts with the ability to drill down to a fine level of detailed student information. The state has committed to increase TVAAS access to all appropriate school personnel by fall 2010. This expansion will be concurrent with TLDS development. Missing from existing TVAAS delivery is access to student/family data from other state agencies that should trigger additional educational support for students whose academic success is threatened or potentially compromised by unexpected events occurring outside of education. TVAAS/TLDS dashboards will include data on public service utilization (subject to data sharing agreements), and improve educators' responsiveness to student circumstances. SAS, Inc. will host webinars to train school, LEA, and DOE personnel on effective use of TVAAS/TLDS dashboards. Ultimately, these portals will communicate "early warning" flags to LEA and school personnel when at-risk behaviors (low attendance, accumulating suspensions, low achievement, and so forth) collectively signal the need for intervention and support.

3. Research support features: the research support layer will be designed to securely access micro-data for research purposes. The Steering Committee, in partnership with CBER and data warehouse staff, will develop research access protocols (including procedures to mask private data), evaluate incoming research proposals, and monitor approved research projects, in strict accordance with FERPA, HIPAA, and other applicable laws.
4. Research reports and policy analysis (products): TLDS, as envisioned in this application, will trace a new frontier for the design and implementation of longitudinal data systems. TLDS will support a wealth of research questions currently precluded by data limitations. DOE and CBER researchers will produce reports that guide policymakers and administrators in identifying and adapting successful education delivery systems. Studies will analyze, for instance, determinants of teacher quality, the value of effective teachers, and short- and long-term efficacy of education policies like teacher performance pay, charter schools, as well as any innovations supported by Race To The Top funds. Effectiveness will be measured by K12 outcomes like test scores, high school attainment, and changes in critical achievement gaps, and also by adult outcomes like college attainment, employment, earnings, incarceration, and utilization of health and welfare services.

#### 6(c) Timeline for Project Outcomes

Timelines and primary responsibilities for outcomes and subtasks outlined in 6(b)(i) through (iii) are described below. See *8. Appendix A4 Itemized Timeline, by Outcome* for further details, including specific tasks, dates, and shared responsibilities. Y1-Q1 refers to the beginning of year 1, quarter 1 of three-year window over which funds will be allocated. Year 1, quarter 1 will commence the calendar month following announcement of grant awards.

During Y1-Q1 and Q2, personnel will be hired and a data architecture subcontractor will be identified. These resources will contribute to all outcomes and tasks. Personnel will be hired by Co-Project Directors at TDOE and CBER. The subcontractor's main function will be to aid in design and implementation of a secure and flexible system for importing, storing, and managing longitudinal data from disparate sources. The subcontractor will also serve as a resource during initial waves of data integration and reporting. Also during Y1, the Steering Committee will be established, bringing together representatives from each partner agency and TLDS staff. Representatives will have expertise in both agency-level administration and data analysis. Anticipating frequent meeting during the development stage of TLDS, this committee will meet at least twice yearly to coordinate data sharing and acquisition agreements, evaluate internal and external research proposals, discuss opportunities for inter-agency cooperation, and provide feedback and guidance to TLDS staff.

#### 6(c)(i) System Architecture Timeline

1. Security features. CBER Project Manager 1 and a data architecture subcontractor will oversee the development, testing, validation, and continuous improvement of necessary infrastructure and software security measures. All efforts will be made to meet and exceed federal and state security requirements. Project Manager 1 will serve as the liaison between the subcontractor and TLDS leadership and will be directly responsible for all products produced by the subcontractor. These security features will be planned and designed during Y1-Q1 and Q2, fully implemented by the subcontractor during Y1-Q3 and Q4, and continuously maintained and evaluated beginning in Y2-Q1.
2. TLDS functional requirements. All TLDS directors and managers will plan forward-looking functional requirements and capabilities of the TLDS. Leadership will identify the data needs of end-users (the public, DOE, participating agencies, and researchers) and plan how the TLDS will meet those needs. These functional requirements will be planned during Y1-Q1 and Q2.
3. Capital products. Co-Project Directors and Project Manager 1 will be responsible for acquiring, evaluating and maintaining all capital products. Initial capital products for secure database locations at DOE and CBER will be in place during Year 1, with additional capital products for the partner agencies acquired during Years 2 and 3. The evaluation and maintenance of all capital products may begin in Y2-Q1, after they are in place and fully operational at CBER and DOE.
4. Data taxonomy, structure, and documentation features. Project Manager 2 will be directly responsible for these features, with consultation and assistance provided by the architectural subcontractor. Project Manager 2 will identify best practices and standards during Y1-Q1 and Q2, and implementation and documentation may begin at Y1-Q3.
5. Data import design features. Data import functionality will be designed by the subcontractor; responsibility will lie with Project Managers 1 and 2. These features will be designed during Y1-Q3—Y1-Q4, with testing and evaluation occurring during Y2-Q1—Y2-Q2.
6. System evaluation products. System evaluation will be a collaborative effort of the Co-Project Directors, Project Managers, and data architecture subcontractor. These personnel will ensure that the system satisfies the needs of all end users. Data warehouse personnel will develop a web-based feedback application for bug reports and other complaints during

Year 2, commensurate with the integration and use of Phase 1 and 2 data. Project Manager 1 will regularly evaluate the TLDS architecture and security system, beginning in Year 2 and ongoing. The DOE Co-Project Director will be responsible for coordinating external evaluations, in accordance with state and federal regulations.

7. Internal audit features. Project Manager 1, in collaboration with the data architecture subcontractor and data warehouse personnel, will be responsible for designing data validation and audit processes to seek, report, and correct errors in the data. Audits will be developed beginning in Y1-Q3, simultaneously with the unique student identification system. Additional validation processes will be incorporated on an ongoing basis as the scope of the TLDS expands.
8. Incoming data integrity features. This subtask requires collaboration between CBER, DOE, Project Manager 2, and the Governance Manager. TLDS managers will determine the most efficient pathways for high-quality data delivery, and recommend adaptations to source agencies' information technology systems. Adaptations to DOE Oracle systems will be an important first step, and is expected to commence in year 1, quarter 1. Features to improve incoming data from other sources will be implemented from the beginning of architectural design in Y1-Q3, and will be ongoing.

#### 6(c)(ii) Data Integration Timeline

##### 1. Phase 1: P-20 LDS

- Unique student identifier and masking features: develop algorithms to match students across Phase 1 data files. Several LDS elements spanning pre-K through the workforce are currently in a common location at the University of Tennessee CBER. Additional P-12 student-level data are maintained by DOE and SAS, Inc. Beginning in Y1-Q3, data warehouse personnel will develop matching algorithms that take advantage of Social Security numbers and other in-service serial numbers identified by the Agency Technical Coordinator. Then, data warehouse personnel and the subcontractor will create a single, global identifier that is not traceable to individuals. This sub-task is coupled closely with security features. All confidential data with no TLDS purpose outside of matching will be stored in a separate, secure location. We expect this initial identification algorithm will have broad, but not universal coverage. The Master Person Index (described below) will allow for universal coverage of the unique student identification system.
- Integrate existing longitudinal elements from DOE, CBER, TVAAS, and NCES to form a partial P-20 LDS. CBER will house the TLDS data warehouse. By Y2-Q1, the secure architecture and student identification systems will be in place. At this time, Project Manager 2 will oversee the integration of all available data and the formation of the TLDS.

##### 2. Phase 2: P-20 LDS Enhancements

- Develop and implement the Master Person Index (MPI). The DOE Co-Project Director, OIR, and outside vendors will oversee the development of the MPI through the end of Y1. The Architecture Manager will communicate the limitations of Social Security numbers and other in-service student identifiers to the State of Tennessee Office for Information Resources (OIR), beginning in Y1-Q3. Project Manager 2 and OIR will jointly

integrate the MPI into the TLDS between Y2-Q1 and Y2-Q2. The MPI will reconcile unmatched Phase 1 data and lay the foundation for the integration of Phases 2 and 3 data. The MPI will be adapted or expanded commensurate with its value added, as determined by the Architecture Manager and Technical Director near the end of Y2.

- Integrate data from agencies with formal agreements to participate in TLDS. Through the first half of Y2, TLDS leadership, along with the Governance Manager and Steering Committee, will formalize data acquisition and sharing agreements with selected agencies (including the Department of Children's Services, the Department of Health, and other agencies listed in section 6(b)(ii)2). Project Manager 1, with consultation from OIR and the subcontractor, will merge Phase 2 agency data (via MPI) with TLDS by the end of Y2

### 3. Phase 3: P-20 LDS Enhancements

- Integrate data from agencies with formal agreements to participate in TLDS. TLDS leadership, along with the Governance Manager and Steering Committee, will formalize data acquisition and sharing agreements with identified Phase 3 agencies through the end of Y2. This task will be ongoing as more agencies, organizations, and cross-state collaborators are recruited, and as the data requirements of partner agencies evolve. Project Manager 1, with consultation from OIR the subcontractor, will merge Phase 3 agency data (via MPI) with the TLDS by the end of Y3-Q2.

### 6(c)(iii) Reporting and Research Timeline

1. Business intelligence (BI) features. All DOE and CBER directors and managers and the Steering Committee will be responsible for planning functional requirements of BI interfaces by the end of Y1-Q3. Existing SAS, Inc. TVAAS interfaces will be expanded to include richer student data from DOE, CBER, and participating agencies. The Governance Manager and CBER Co-Project Director will plan and document business rules for aggregation, access, and sharing, starting in Y2-Q1 and ongoing as additional agencies are recruited to participate. SAS, Inc. will program aggregation and access rules, beginning in Y2-Q1, and ongoing as additional data is integrated. Data warehouse personnel will connect BI layers to the TLDS, beginning with integrated Phase 1 data in Y2-Q1, and then with Phases 2 and 3 data throughout Y3. Project Manager 2 will test and evaluate BI tools throughout Y2 and Y3.
2. Web-based portals. Projects Managers 1 and 2 and SAS, Inc. will oversee development, testing, and validation of web-based portals for TLDS data access. The degree of allowed disaggregation will be determined by user class (public, school, LEA, DOE, or qualified employees of the partner agencies), security clearance, and user needs. Portal interfaces will be tested and validated before launch. Dashboards for schools, LEA administrators, and DOE personnel will be launched following successful integration of Phase 1 data. At that time, TLDS managers will develop an early warning algorithm to identify at-risk students using multiple dimensions of student information (attendance, achievement, disciplinary actions, and so forth). TVAAS/TLDS dashboards will be used to notify school leaders of at-risk students. Additional dashboards for qualified agency personnel will be launched following the incorporation of Phase 2 and 3 data. SAS, Inc. will host webinars to introduce qualified personnel to the new TVAAS/TLDS dashboards and early warning notifications. The

first wave of webinars will target school, LEA, and DOE portal users, and the second wave will target agency portal users.

3. Research support features. TLDS leadership and managers will determine functional requirements of a research support layer connecting TLDS data to researchers and policy analysts in Y1-Q3. This class of end-user requires a fine level of detail for data analysis; accordingly, TLDS leadership, Governance Manager, and Steering Committee will plan and document research access procedures and research-specific security measures by the end of Y2-Q2. Research support layers (i.e., statistical packages and supporting features) will be selected in Y2-Q1 and adapted to support access and security protocols.
4. Research reports and policy analysis. By Y2-Q3, Phase 1 and some Phase 2 data will be integrated into the TLDS, the MPI will be operational, and the TLDS will be a valuable resource for research. At this time, the CBER Co-Project Director and Steering Committee will begin evaluating projects requiring access to a finer or broader level of detail afforded by web-based portals. Approved projects will be monitored, and final reports will be collected in a restricted-access library of TLDS research.

#### 6(d) Project Management and Governance Plan

Project location: The project is located within TDOE with Co-Project Directors (CPDs) and support staff located in TDOE and at CBER, a trusted third party already in an established relationship with TDOE, THEC and several other state agencies. This is a collaborative project that goes beyond typically delineated boundaries. DOE's existing LDS Governance, described below and depicted in 8. *Appendix A5*, and CBER are responsible for approval and oversight of project activities.

Governance Structure: A Steering Committee chaired by the Commissioner of DOE, empowered to set policy for all interagency components of TLDS, will be composed of the Commissioner or her designee from each partner agency, TDOE and CBER Co-Project Directors, and Finance and Administration, 8. *Appendix A5*. The Steering Committee will meet frequently during the development stage of TLDS, then approximately twice yearly once the database has been established. The Steering Committee will coordinate with other interagency policy boards, including the one currently being established for e-health, 8. *Appendix A6*.

A Work Group will be appointed composed of one policy and one IT representative from each member of the Steering Committee. The Work Group will be charged with implementing policy set by the Steering Committee, be responsible for evolution of the database as available data and needs change over time, and make decisions within policy set by the Steering Committee on specific access to the database and on what data can be made available to which users. The Work Group will organize functional work areas focused on specific issues such as security protocols, how and when data are to be updated, and performance standards for the participants, among others.

The current TDOE Data Management Committee will be retained as key informants in the Governance Structure as they are currently organized. Areas represented on Data Management Committee are Office of Federal Programs; Field Service Centers/State Schools;

CCD, Non-Fiscal, Curriculum and Instruction; Financials; Career and Technical Development; Office of Assessment; Professional Development; Special Education; Department of Early Childhood; English Language Learners; Free and Reduced Lunch; Highly Qualified; Graduation Rate; Discipline/Dropout; Annual Yearly Progress/Report Card; and Safe and Drug Free Schools.

The CPDs will be responsible for the project's operation during the period of the grant, sustained in DOE by the Department's Chief Analytic Officer and at CBER through integration of the databases developed during the grant into ongoing operations of the Center.

Project Management Controls: DOE and CBER CPDs will meet frequently to assure these functions occur timely:

- DOE's CPD is responsible for enhancing the P-12 to its full potential and expanding TLDS to a complete P-16/P-20 through the existing Governance Structure, *8. Appendix A5*, supported by a Database Administrator responsible for LDS database transactions and reports and a research analyst (Yr 1, Q1, Q2 and beyond). Additionally, in collaboration with a policy analyst in the Governor's Office of Children's Care Coordination (GOCCC), who serves as Governance Manager for the project, the DOE CPD is responsible for initiating multi-departmental data acquisition agreements (Yr 1, Q3, Q4). Staff of the GOCCC is responsible for developing and coordinating the Steering Committee (Yr 1, Q1 and beyond) and developing and monitoring formal Memoranda of Understandings among the departments, CBER and DOE.
- CBER's CPD is responsible for the architecture for the project to be developed by a qualified subcontractor, which will include acquisition of the hardware, development of the software and filling of the database with data from the many partner agencies.

CBER will have two Project Managers (PMs) who will have day-to-day responsibility in coordination with TDOE for different aspects of database development. One PM in CBER will take responsibility for development of software and acquisition of hardware (Yr 1, Q1, Q2) and testing and evaluation (Yr 1, Q3, Q4). PM1 will work closely with the qualified subcontractor who designs and builds the database to ensure the architecture is consistent with Tennessee's needs, allows highly functional and efficient access to appropriate data and analysis and can be efficiently maintained and updated once it has been developed. PM1 will also work closely with partner agencies to ensure they have appropriate hardware and software to upload data seamlessly into TLDS and to download data and analysis in an appropriate format to facilitate usefulness for partner agency operations and analyses. PM1, together with her counterpart in TDOE, will serve as the primary advisors to partner agencies on solving hardware and software problems. This person will serve as the Architecture Manager (Yr 1 and beyond).

The second Project Manager in CBER will take responsibility in cooperation with TDOE for data linkages with partner agencies. PM2 will work with partner agencies, and particularly with the GOCCC Governance Manager in obtaining partner agency agreements on what data are to be included in TLDS and who has access to the data. PM2 will represent CBER in the Work Group to ensure smooth, unimpeded communications on implementation of the governance plan. Further, PM2 together with his or her counterpart will be accountable for developing clear

understanding of the data being placed into TLDS, data cleansing and internal audit for all partner agency data, and a data dictionary that provides a consistent set of definitions across data retrieved from partner agencies so the resulting product can be reliably and consistently matched across underlying data sets (Yr 1, Q3, Q4 and beyond).

A set of academic advisors will work regularly with the core TDOE and CBER project staffs to ensure the data and architecture are designed most usefully for implementation in partner agencies' operations and for analysis of public policy and education outcomes and methods. Further, the academic advisors together with TDOE will develop the initial public reporting on education in Tennessee and on how education interacts and interfaces with other key public policy investments including in health, correction, higher education, and children's services. Academic advisors will come from multiple backgrounds including economics, geography, and accounting.

Adherence to project timelines and budgets will be reported monthly to the DOE Commissioner and Executive Management Team and to CBER's leadership.

Project Partners: The other partner agencies in the project are SAS, OIR, the Departments of Children's Services, Health, Human Services, Mental Health and Developmental Disabilities, Correction, Labor & Workforce Development, THEC, TCCY and TennCare Bureau. Initial Project Charters, included in *11. Appendix D*, articulate commitments for implementation by the partner agencies. Memoranda of Understandings will be formalized during the period of the grant.

Input of teachers and other educators will be sustained through input from and feedback to the District Technology Advisory Committee, extant. In addition, the District Technology Advisory Committee will include representatives of model Teacher/Student IT projects planned or underway in Memphis, Nashville, Knox County and Greeneville Tennessee.

Training and Technical Assistance: Ongoing and sustained training across education sectors is vital to TLDS. If we do not examine and analyze our data we will have wasted millions of dollars on a technical infrastructure and be unable to determine which school courses prepare students for higher education. The overall scope of training will attend to consistent coordinated training for LEAs, Administrators, Counselors, interagency personnel and other child caring personnel who hold appropriate security identification for student data access. These trainings will address needs anticipated over the next five years and beyond, as the State of Tennessee develops a broad capacity to respond to students at risk of, in, or emerging from crises.

Types of Training: The types of training that will be delivered include: Conference trainings at the Annual Superintendents conference, the spring and fall attendance conference, the Annual Teachers Annual Tennessee Educational Technology Conference, web portal training and webinars training.

1. FERPA Rules and Regulations;
2. The Data Elements of the TLDS;
3. Data use for best practices;
4. Data use for student improvement and analyses;
5. Data use for effective teaching; and
6. Data use for curriculum changes/modifications

Web Portal training will be available for teachers, administrators, counselors and school board members and legislators who hold appropriate security permissions. The intent is to reach multiple stakeholders in the education language that they understand. This site will include a data sharing area for dialogue. It will include regular case studies of best practice and lessons learned. It will also have secure portals for authorized users to access the state's longitudinal data system. The web portal will support on demand personalized training which will be used for Professional Development.

Letters of support from all partners and initial Project Charters, as appropriate, are included in *11. Appendix D*.

#### (e) Staffing

Staff support for project and Governance structure for the project is comprised of (1) the DOE Co-Project Director, DOE's Chief Analytic Officer, responsible for enhancing P-12 and expanding to P-20; 2 Data Base Administrators responsible for, but not limited to, the design, implementation, maintenance and repair of DOE's student longitudinal database, to include installation of new hardware/software, security administration, data analysis, database design, data modeling, optimization and performance analysis and tuning; 2 research analysts responsible for providing expert analysis and analytical skills to assess educational performance from teacher to student, student to school, school to district, district to district and LEA to LEA for Tennessee students; and 1 full time administrative support staff responsible for maintaining documentation about the project, timely communications among the partners, and related organizational support;

(2) the CBER Co-Project Director responsible for managing development and operation of TLDS in collaboration with TDOE; Project Manager 1 responsible, in conjunction with a qualified subcontractor, for development of software and acquisition of hardware and for hardware and software problem solving with project partners; Project Manager 2 responsible for data linkages with partner agencies, protocols for data, cleansing, and internal audit, development of data dictionary, and representing CBER in the Work Group; academic advisory staff (one full time equivalent per year), and one support staff; and

(3) one GOCCC policy analyst, the Governance Manager, responsible for multi-departmental project collaboration.

# Project Narrative

## Project Narrative - Appendix A, Optional Attachments

Attachment 1:

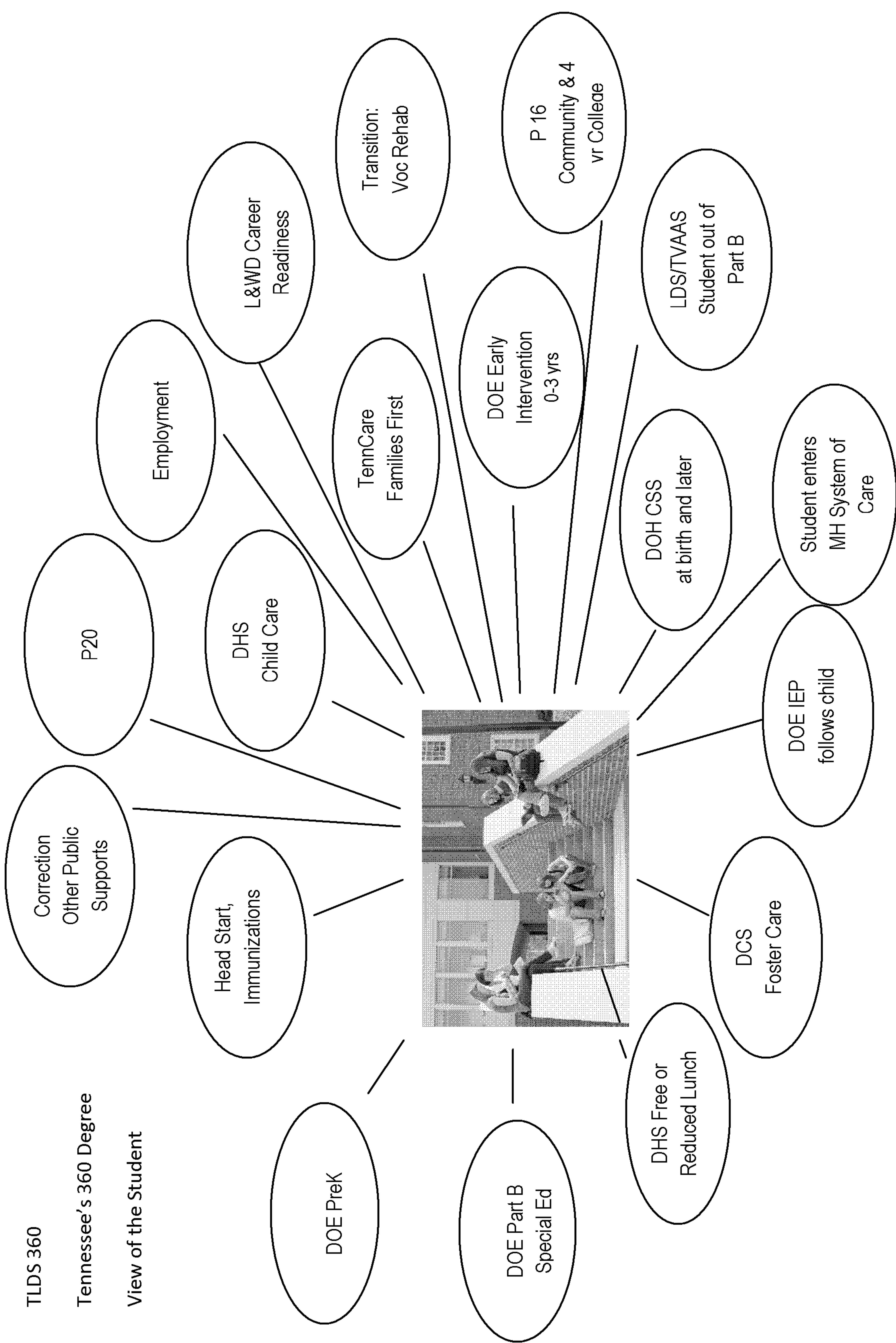
Title: **Appendix A** Pages: **12** Uploaded File: **C:\Documents and Settings\CA18071\Desktop\UI\APPENDICES.pdf**

8. Appendix A1

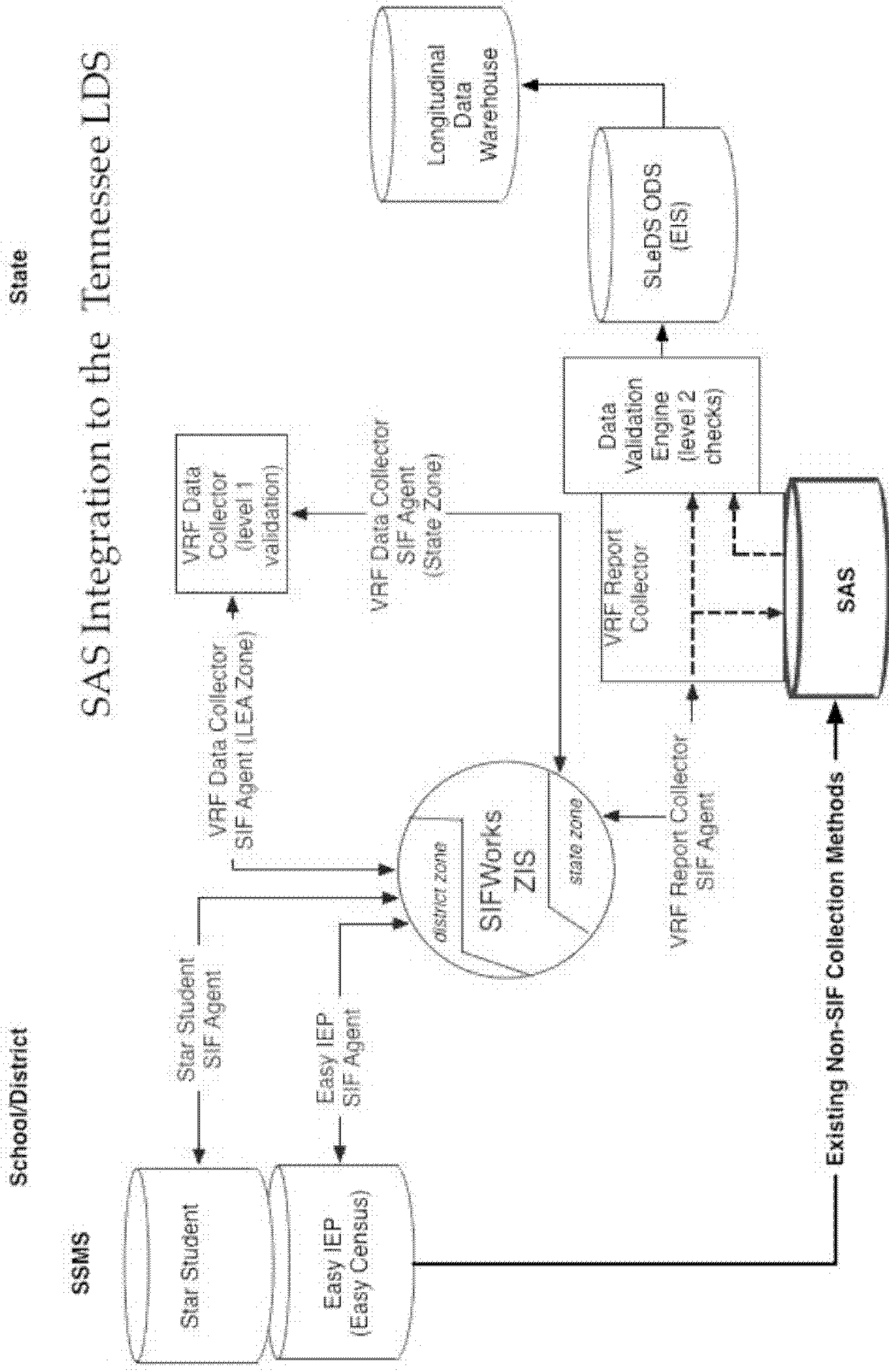
TLDS 360

Tennessee's 360 Degree

View of the Student



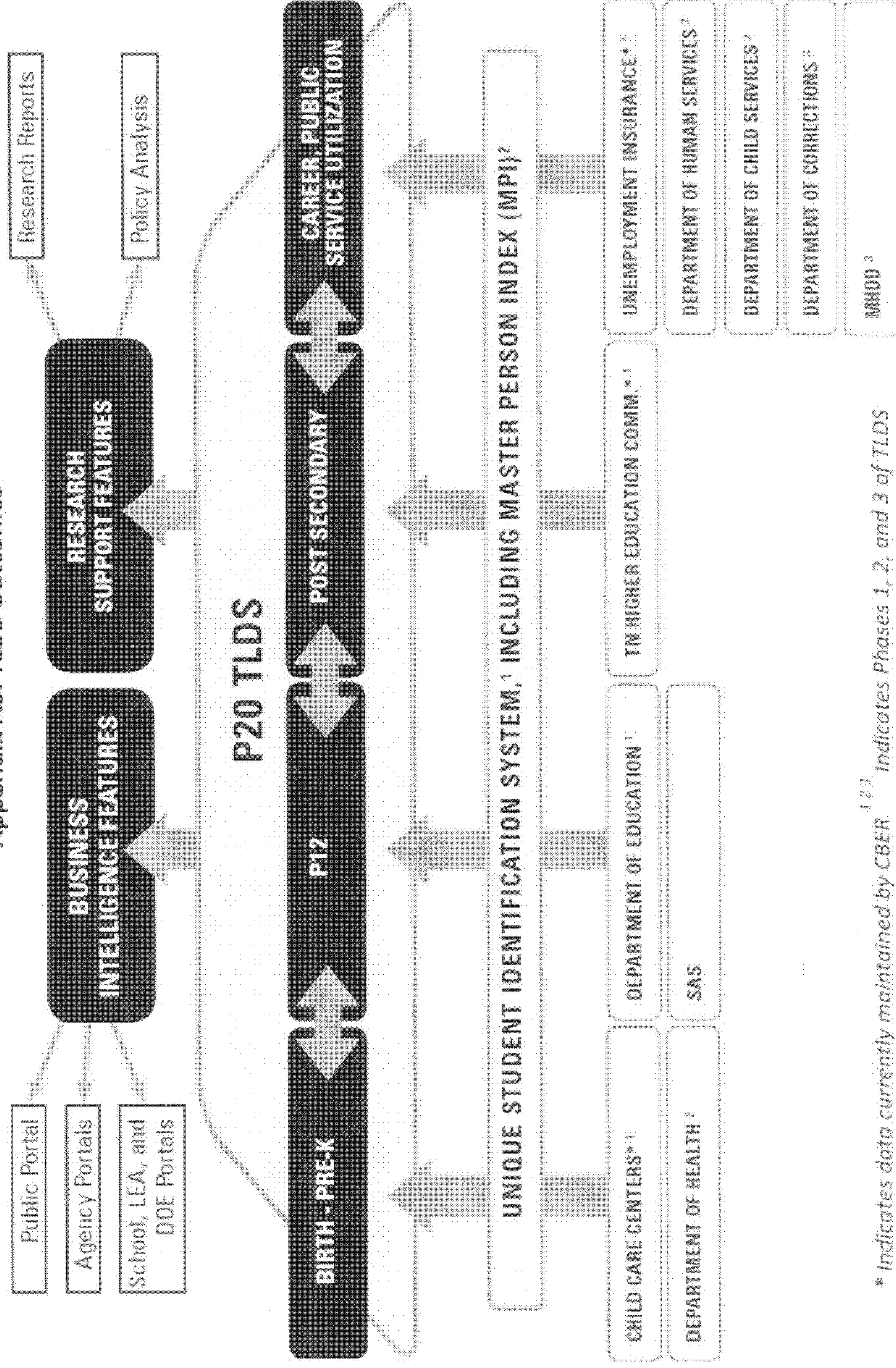
Appendix A2.



SAS integrates with VRF using a methodology specified by the SAS team. Pearson and SAS personnel will work closely to build the integration, both for bringing data into SAS and for taking data from SAS to the rest of the LDS.

If for some data it makes more sense to continue the existing (non-SIF) SAS data collections, those will be preserved and used.

Appendix A3. TLDS Outcomes



\* Indicates data currently maintained by CBER.<sup>1 2 3</sup> Indicates Phases 1, 2, and 3 of TLDS

Appendix A4: Itemized Timeline, by Outcome<sup>1</sup>

A4(i) Timeline for Architecture Products and Features

Outcome subtask(s) <sup>2</sup>	Activity	Year- quarter start	Year- quarter end	Resource <sup>3</sup>	Responsible <sup>4</sup>
All	Hire/assign TLDS directors, managers, and support staff.	Y1-Q1	Y1-Q4		DOE Commissioner, DOE CPD, CBER CPD
All i subtasks	Plan, and prepare RFP and select data architecture subcontractor	Y1-Q1	Y1-Q2	OIT, TIS	DOE CPD, CBER CPD, PM1
All i subtasks	Monitor contract functions	Y1-Q3	Y3-Q4		CBER CPD, PM1
All i subtasks	Evaluate continuing and future contract relationships	Y2-Q3	ongoing		DOE CPD, CBER CPD, PM1
i1	Launch secure infrastructure: select facility,	Y1-Q1	Y1-Q2	OIT, TIS,	PM1

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<sup>1</sup> Project outcomes, as described in 6(b) are (i) architecture, (ii) integrated data, and (iii) research and reporting.

<sup>2</sup> Outcome subtasks refer to products and features itemized for each outcome in section 6(b). For instance, subtask i1 is “Security features,” described in section 6(b)(i)1.

<sup>3</sup> Resources, in addition to personnel listed under “Responsible,” include the State of Tennessee Department of Education (DOE), the State of Tennessee Office for Information Resources (OIR), the University of Tennessee Office of Information Technology (OIT), the UT College of Business Technology Integration Services office (TIS), the data architecture subcontractor (“subcontractor”), and various agencies and organizations submitting data.

<sup>4</sup> Responsible personnel are the DOE Co-Project Director (CPD), CBER Co-Project Coordinator (CPD), CBER Project Manager 1 (PM1, whose responsibilities include architecture and contracts), CBER Project Manager 2 (PM2, whose responsibilities include agency linkages and documentation), DOE Governance Manager (GM), and Steering Committee (SC).

	purchase hardware, and implement operating systems					
i1, i3, ii1	Convert existing data systems to secure new environment	Y1-Q3	Y2-Q1	subcontractor	PM1	
i1, i6	Security management and evaluation	Y2-Q1	ongoing	OIT, subcontractor	PM1	
i1, i3, i6	Evaluation of new infrastructure and environment	Y2-Q1	Y2-Q2	subcontractor	PM1	
i1, i3	Infrastructure maintenance and upgrading/updating as needed	Y2-Q2	ongoing	OIT, TIS,	PM1	
i2	Plan functional requirements of TLDS	Y1-Q1	Y1-Q1	DOE, OIT, TIS	All TLDS directors and managers	
i4	Identify best practices in data taxonomies and metadata definitions	Y1-Q1	Y1-Q2	DOE, OIT, TIS	PM1, PM2	
i4	Develop TLDS data taxonomies and metadata definitions	Y1-Q3	Y1-Q4	subcontractor	PM2	
i4	Database structural component design for Phase	Y1-Q3	Y1-Q4	subcontractor	PM1	

	1 data					
i4	Database structural component modifications for Phase 2 and 3 data.	Y2-Q1	Y3-Q1	subcontractor	PM1	
i4	Codebook for Phase 1 data	Y1-Q3	Y2-Q2	subcontractor,	PM2	
i5, i8, ii1	Data import design for Phase 1 data	Y1-Q3	Y1-Q4	subcontractor	PM1, PM2	
i5, i8, ii1	Data import test and evaluation	Y2-Q1	Y2-Q2	subcontractor,	PM2	
i7, i8	Incoming data integrity: design efficient data delivery pathways; adapt IT systems at the source where possible.	Y1-Q3	ongoing	subcontractor	PM2	
i7, i8	DOE Oracle database upgrades to enhance the operations and efficiency of current P12 LDS	Y1-Q1	Y3-Q4	Oracle	DOE CPD	
i7, i8	Internal data validation and audit features	Y1-Q3	ongoing	subcontractor	PM1	
i6	Establish channels to communicate and resolve bug reports.	Y2-Q2	Y2-Q3	subcontractor	PM2	

i6	External data validation	Y3-Q1	ongoing	DOE	DOE CPD	
i5, i8, ii2	Data import design for Phase 2 data	Y2-Q3	Y2-Q4	subcontractor	PM1	
i5, i8, ii3	Data import design for Phase 3 data	Y2-Q4	Y3-Q1	subcontractor	PM1	
i4	Codebook expansion for Phase 2 and 3 data	Y2-Q3	Y3-Q4	subcontractor,	PM2	
i4	Codebook maintenance and expansion	Y3-Q4	ongoing	OIT, TIS	PM2	
All i subtasks	Knowledge Transfer	Y3-Q3	Y3-Q4	subcontractor, OIT, TIS	CBER CPD, PM1, PM2	

A4(ii) Timeline for Data Integration Products and Features

Outcome subtask(s)	Activity	Year- quarter start	Year- quarter end	Resource	Responsible
ii1	Unique student identification system: use in-service P20 identifiers (Social Security numbers, student IDs) to link Phase 1 data across files.	Y1-Q3	Y2-Q2	subcontractor	PM2
ii1	Import and merge Phase 1 data	Y2-Q1	Y2-Q2	subcontractor	PM2
ii1	Evaluate limitations of in-service P20 identifiers.	Y1-Q3	Y2-Q2	subcontractor	PM2
ii2	Develop Master Person Index (MPI) to complement and improve on in-service identifiers.	Y1-Q3	Y1-Q4	OIR	DOE CPD
ii1, i7, ii2	Integrate MPI: cross-validate with in-service Phase 1 identifiers to complete P20 TLDS.	Y2-Q1	Y2-Q2	subcontractor, OIR	PM2
ii2	Evaluate MPI	Y2-Q3	Y2-Q4	subcontractor, OIR	DOE CPD, PM2
ii2, ii3	MPI expansion and maintenance	Y3-Q1	ongoing	OIR	DOE CPD, PM2

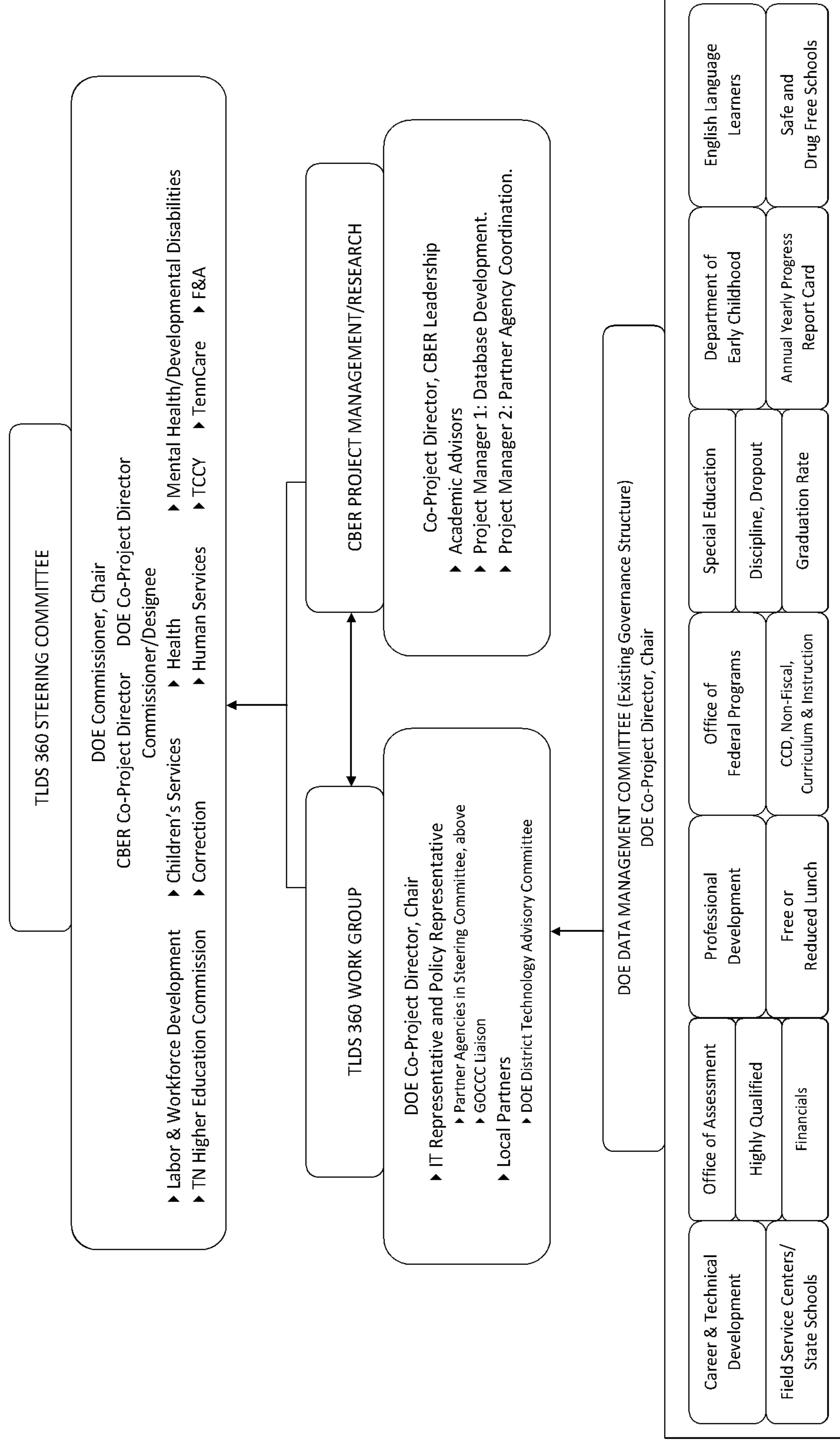
ii2	Finalize data sharing agreements with Phase 2 agencies	Y1-Q1	Y2-Q2	DOE	DOE CPD, CBER CPD, GM, SC
ii2	Import and merge Phase 2 data, using MPI and in-service identifiers.	Y2-Q3	Y2-Q4	subcontractor	PM2
ii3	Finalize data sharing agreements with Phase 3 agencies	Y2-Q1	Y2-Q4	DOE	DOE CPD, CBER CPD, GM, SC
ii3	Import and merge Phase 3 data, using MPI and in-service identifiers.	Y3-Q1	Y3-Q2	subcontractor	PM2

A4(iii) Timeline for Research and Reporting Products and Features

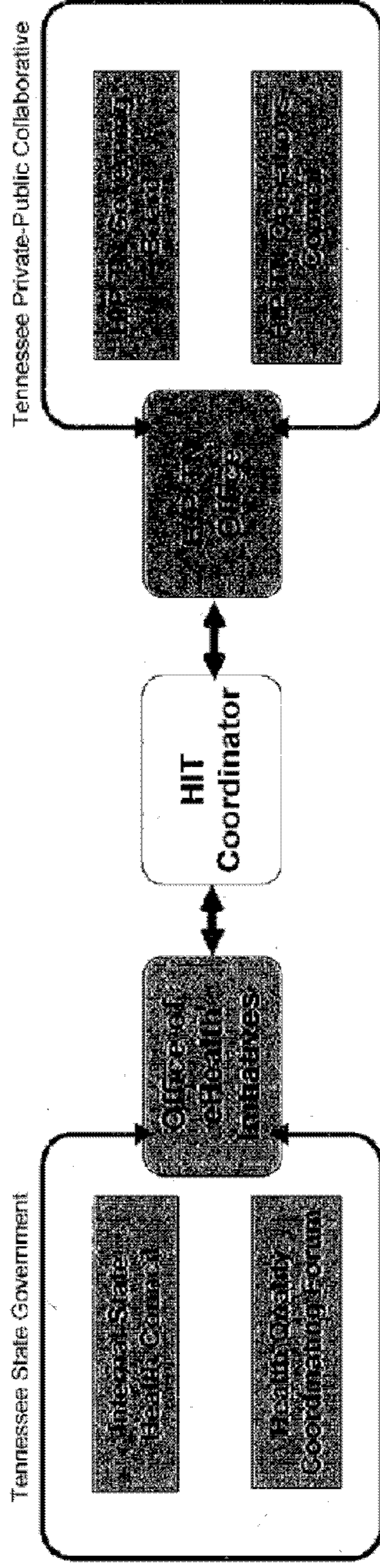
Outcome subtask(s)	Activity	Year- quarter start	Year- quarter end	Resource	Responsible
All iii subtasks	Plan functional requirements of business intelligence (BI) and research support layers.	Y1-Q3	Y1-Q3	subcontractor, OIT, TIS, DOE	All TLDS directors and managers
All iii subtasks	Plan and prepare RFP and select vendors for BI layer.	Y1-Q4	Y1-Q4	subcontractor	DOE CPD, CBER CPD, PM1, PM2
iii1	Document business rules for BI usage: determine disaggregation	Y2-Q1	ongoing	subcontractor	CBER CPD, GM, SC

	and access permissions by user class (public, DOE, agency) and user needs.					
iii1	Program business rules.	Y2-Q1	ongoing	BI vendor, subcontractor	DOE CPD, PM1, PM2	
iii2	Install BI layer and end-user dashboards for Phase 1 data	Y2-Q1	Y2-Q4	BI vendor, subcontractor	PM1, PM2	
iii1, iii2	Evaluate Phase 1 BI tools, and improve where necessary.	Y2-Q3	Y2-Q4	subcontractor, DOE	DOE CPD, PM1, PM2, GM,	
iii2	Enhance BI to include Phase 2 and 3 data	Y3-Q1	Y3-Q4	BI vendor, subcontractor	DOE CPD, PM1, PM2	
iii1, iii2	Evaluate Phases 2-3 BI tools, and improve where necessary.	Y3-Q2	ongoing	DOE, BI vendor	DOE CPD, PM1, PM2, GM	
iii3	Select vendor for research support layer.	Y2-Q1	Y2-Q1	OIT, TIS	CBER CPD	
iii3, iii4	Document research access protocols by user class (external, internal) and user needs.	Y2-Q2	Y2-Q3		DOE CPD, CBER CPD, GM, SC	
iii4	Evaluate internal and external research proposals.	Y2-Q3	ongoing		CBER CPD, SC	
iii4	Support and monitor internal and external research.	Y2-Q3	ongoing		CBER CPD, SC	

## 8. APPENDIX A5: PROJECT MANAGEMENT & GOVERNANCE STRUCTURE

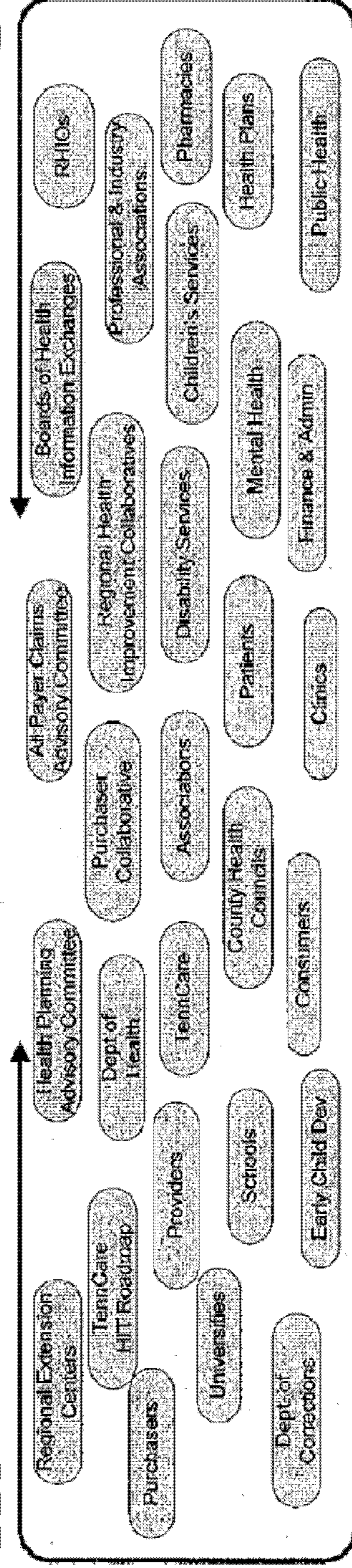


# OVERVIEW: Coordination of Health Information Exchange in Tennessee



## WORK GROUPS

Drawn from Pool of Stakeholders and Ongoing Related Collaborative Efforts



Stakeholders & Interest Groups From Within and From Across The State

# Project Narrative

## Project Narrative - Appendix B Resumes of Key Personnel

Attachment 1:

Title: **Resumes** Pages: **13** Uploaded File: **C:\Documents and Settings\CA18071\Desktop\UIRESUMES.pdf**

## 9. Appendix B1 Resume

### Qualifications of:

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Irma Jones, (b)(6)

#### SUMMARY:

To lead business reengineering and business modernization consulting projects where my aptitude for improving business processes, harvesting and documenting business rules, simplifying and solving complex business problems, Fortune 500 experience, and knowledge of emerging technologies can be effectively used. To assist companies and managers to design, build, and deploy applications using the Business Process Management approach, methodology, and technology.

Seasoned Information Technology Executive, Process Improvement Analyst & Business Process Management Consultant. Project Manager and Business Analyst, over 18 years experience in Information Technology Management, Network Engineer, Network Management, Network Administration, Network Design, and Mainframe Network Integration, over 13 years experience in Technical (IXC) Telecommunications Industry, over 12 years of Project Management experience, 7 years experience in PBX/ADJUNCT Installation and Implementation, Project Management Professional Program (PMPP) Candidate  
Experienced in identifying and implementing technical (SOW and specifications), functional and management (Work Breakdown Structures, WBS), CPM schedules, spending curves, project policies and procedures, Strong multi-tasking background as a Project Manager; experienced in communicating, organizing, problem solving, planning and executing projects from conception stage through implementation.

#### ORACLE University Training:

Oracle Database 10g: Introduction to SQL; Data Warehousing Fundamentals; Oracle Database 10g: Administration Workshop I Release 2; Oracle BI Discoverer Plus 10g; Oracle BI Discoverer Plus 10g: Analyze Relational and OLAP Data, Data Warehousing and Oracle Business Intelligence

#### PROFESSIONAL AFFILIATIONS

**Board of Directors, National Grants Management Association, Washington, DC; Director, Certification Committee, National Grants Management Association; Project Management Institute, Nashville, Tennessee Chapter; League of Women Voters; Nashville Women's Political Caucus; Board Member of WIN (Women In Numbers); Board Member Southern Sudanese Youth Connection**

**EXPERIENCE:** October 2008 – Present

Department of Education  
State of Tennessee, Nashville, TN

#### **Chief Analytic Officer, CAO**

Director of State of Tennessee's Data Longitudinal Services, LDS Program Manager for IES/CCSSO Grant, Director for the State of Tennessee, Department of Education's Data Warehouse, Director of Data Management Committee, National Center of Education (NCES) Forum SEA Coordinator and Data Manager for School Approval. Responsible for managing Data warehousing and business intelligence (BI) initiatives with a heavy focus on getting technical and architectural components in place to support and leverage State of Tennessee, Department of Education data assets.

January 2008 – September 2008

Department of Education  
State of Tennessee, Nashville, TN

#### **Assistant Director, LEA Technical Support Services**

Direct the planning and implementation of enterprise IT systems in support of business operations in order to improve cost effectiveness, service quality, and business development. Responsible for all aspects of the organization's information technology and systems. Responsible for directing the implementation of the State of

Tennessee's latest initiative of "The Edison Project" for the Department of Education. Provide advice and assistance to senior managers on IT acquisition and management;

May 2004 – Present

State of Tennessee, Nashville, TN

**Special Projects Manager, the Governor's Office of Diversity Business Enterprise.**

Prepare the program goals, long-term plans, mission statements, and related matters for the Commissioner of General Services. Develop Compliance Policies and Procedures for the Governor's Office of Diversity Business Enterprise.

**Assistant Director of Administration, Department of General Services, Department of Motor Vehicle Management.**

Key responsibilities included providing leadership in the area of Fleet Business Management Processes, managing the Fleet Business Process Team, working with upper management, business leaders and users to identify, initiate and prioritize improvement programs and enhancements as well as with site business leaders, management and users to identify, diagnose and solve process and system issues. In addition, identified areas for process improvement and establish effective and efficient business practices and work with department colleagues to deliver global solutions that are cross-functionally integrated, accommodate all related activities, and would not negatively impact other functional areas. In partnership with Finance Management, assisted in the development and leadership of the Fleet Finance Business Processes and training program including the development of materials and delivery of goods and services. Also provided ongoing assistance and communication working through the local fleet business function leaders.

**Special Projects Manager, Department General Services, Office of Administrative Services.**

Provides consulting assistance in legacy systems programming and planning for interdepartmental agencies. Services include space programming, capacity analysis, business support, feasibility studies, needs assessments, customer service, and work process design, learning integration, research design, project management, analysis and reporting.

**Grants Program Manager.** Serves as primary point of contact for assistance with contractual, financial and compliance issues related to incoming grants with a focus on government donors and issues related to external grants. Provides training on such topics as grants management, full cost recovery approaches, sub recipient monitoring proposal budgeting, and donor regulations. Develops and maintain grants management and external grants database. Oversee data management and prepare reports such as financial report due dates, lists of high-risk recipients, and site visit scheduling.

March 2002 – May 2004

Southern Sudanese Youth, Nashville, TN

**Director of Grants Management** Counsel and/or discipline as needed. Facilitate and assume resolution of problems referred by Contract and Grant Agencies. Design and implement procedures, services and systems for research administration. Interact with senior administrators and Agency representatives to facilitate administration activities. Develop complex clauses, agreements or other documents of a legal or contractual nature and provide guidance and assistance to other administrators. Direct departmental activities of long-range planning, formulation and resolution of policy and procedural issues, development and enhancement of services and determination and assessment of goals and objectives. Provide on-going input regarding status of research activities. Participate in classes, programs, professional associations and conferences which benefit the management and administration of grants and projects.

March 2001 – March 2002

Comdata Corporation, Brentwood, TN

**Telecommunications Project Manager** Provide operational, administrative and project support for AVAYA system with IVR, CAS and IP. Responsible for providing technical and specialized support/resolution of operations process and systems problems including identification and development of automation or process optimization approaches. Managed the installation and test of Telecom equipment at vendor sites. Acted as single point of contact

for all project issues related to the contract. Coordinated overall implementation management, including reviewing customer requirements, and developed the implementation plan together with the customer, engineering department and operations managers. Managed ACD splits, trunking, rights and security in the AVAYA G3R PBX and Conversant IVR Systems. Responsible for writing, troubleshooting and removing over 700 call center vectors. Established new and removed terminated agents log-in as necessary, tracked and resolved issues that could impact project success by performing risk analysis.

August 2000 – February 2001

Aspect Communications, Brentwood, TN

**Telecommunications Project Manager.** Responsible for Project Management of new ACD installations and upgrades. Created high-level program schedules identifying key milestones and critical path activities. Coordinated creation of detailed functional area schedules, and rationalize detailed schedules to high-level milestones. Worked with the Program team to resolve interpretations or coordinate modifications to original product requirements, additional features, and customer and market driven requirements as required by time, technology, market or organizational changes or constraints. Responsible for identifying acceptable Still Media software for implementation and utilization for Special projects.

February 1998 – August 2000

Lucent Technologies, Franklin, TN

**Project Manager, Business Communication Systems.** Responsibility and authority to control scope, cost and schedule for complex and enterprise projects. To include contract negotiation to insure project executability, leading the overall project implementation, including resources, planning, tracking, and contract commitments through project close out. Managed installation teams for implementation of AVAYA G3R, G3, Prologix, Voice Mail, Conversant and CTI equipment.

December 1995 –February 1998

RAM, Incorporated, Birmingham, AL

**Director, Network Operations Division:** Department of Defense. Director of Information Technology Team responsible for migrating eight state areas from Novell WAN to Windows NT WAN. Responsible for hiring of all personnel, training, supervising and management of installation projects. Created and maintained project schedules and milestones. Provided training and technical assistance to the FAA to improve effectiveness of overall project management and MS-Project scheduling activities, and develop a standard work breakdown structure and schedule templates to improve tracking of large, multi-year project integration efforts

June 1994 - December 1995

BELLSOUTH, Birmingham

**Information Technology Manager**

**Managed Novell** and Windows NT network designs. Implemented and installed **Novell** network infrastructure for new accounts. Responsible for testing operability of new equipment. Training of network personnel for new LAN installations.

March 1990-June 1994

Brink's, Incorporated, Norcross, GA

**Systems Engineer:** Administration and installation of multiple **Novell** LAN's worldwide.

**EDUCATION:** BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY NETWORKING AND TELECOMMUNICATIONS, August 2010, the University of Phoenix.  
Associates of Arts in Business, The University of Phoenix, March 2009.  
Bachelor of Business Administration, University of America, Cedar Rapids, IA.  
Minor: Psychology and Information Systems, 1994.  
The University of Alabama  
Pre-Medicine/Microbiology 1981

**MILITARY SERVICE:**

United States Army  
March 1983-March 1986

United States Army Reserve  
June 1986-June 1989

## 9. Appendix B2 Resume

### William F. Fox

William B. Stokely Distinguished Professor of Business and Professor of Economics  
Director, Center for Business and Economic Research  
The University of Tennessee, Knoxville

**EDUCATION:** B.A., Miami University, Oxford, Ohio, Cum Laude  
M.A., Ph.D. The Ohio State University

#### **EXPERIENCE:**

Head, Department of Economics, University of Tennessee, August 1992-July 1997.

Visiting Professor of Economics, University of Hawaii, Spring 1992.

**International Advisory Experience:** Bangladesh, Bosnia and Herzegovina, Brazil, Bulgaria, Columbia, Croatia, Egypt, Guatemala, Haiti, Hungary, Jordan, Kenya, Kosovo, Kyrgyzstan, Lebanon, Nepal, Palestine, Philippines, Romania, Russia, Rwanda, Sierra Leone, Slovakia, South Africa, Sri Lanka, Sudan, Tanzania, Yemen

**State Advisory Experience:** Arizona, Hawaii, Kentucky, Louisiana, Massachusetts, Minnesota, Missouri, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, Washington D.C

#### **Selected Other Experience:**

Harvard Institute for International Development

Asian Development Bank

Organization for Economic Cooperation and Development, Paris

Visiting Scholar, Federal Reserve Bank of Kansas City

National Tax Association, President, Vice President, Board of Directors.

National Tax Journal, Editorial Advisory Board

Tax Policy Center State and Local Tax Advisory Board, Urban Institute/Brookings Institution

#### **SELECTED AWARDS AND HONORS:**

Ray and Joan Myatt Outstanding Teaching, Research and Service Award, University of Tennessee College of Business, 2007.

Special Recognition Award, Institute for Professionals in Taxation, 2006.

Bank of America Leadership Award, University of Tennessee 2006.

Fulbright German Distinguished Chair in American Studies, University of Frankfurt, 2004-05

Steven D. Gold Award, NTA, AAPAM and NCSL, 2003

#### **FUNDED PROJECTS (1986-2010) Total: \$22,363,000)**

#### **SELECTED PUBLICATIONS AND INVITED PRESENTATIONS:**

"Measuring Behavioral Effects of Property Taxes," in *Challenging the Conventional Wisdom on the Property Tax*, Lincoln Institute of Land Policy, 2010.

"Base Mobility and State Personal Income Taxes." *National Tax Journal*, forthcoming.

"State and Local Sales Tax Revenue Losses from E-commerce," *State Tax Notes*, 2009.

"The SSTP and Technology: Implications for the Future of the Sales Tax, *Nat Tax J* 2008.  
 "On The Extent, Growth, and Consequences of State Business Tax Planning," in "Measuring Behavioral Responses to the Property Tax," Presented to G State U 2008.  
 "The United States of America," in *The Practice of Fiscal Federalism, Comparative Perspectives*, McGill-Queen's University Press, 2007,  
 "Fiscal Federalism in Bosnia-Herzegovina: Subsidiarity and Solidarity in a Three-Nation State" in *Fiscal Fragmentation in Decentralized Countries*, Edward Elgar, 2007.  
 "State Strategies for Dealing with Tax Sheltering and Planning," *S & I Tax Lawyer*, 2006.  
 "Tax Base Elasticities: A Multistate Analysis of Long Run and Short Run Dynamics," *Southern Economic Journal*, October 2006.  
 "How Broad Should State Sales Tax Bases Be? A Review of the Literature." *State Tax Notes 15<sup>th</sup> Anniversary Issue*, September 2006.  
 "Will Consolidation Improve Sub-National Governments, Policy Research Working Paper 3913, The World Bank, Poverty Reduction and Economic Management, Public Sector Governance Group, May 2006.  
 "China Property Taxation and Rate Determination," Beijing, May 2006.  
 "Understanding Tennesseans' Attitudes About Education," Report Prepared for the Office of the Tennessee Comptroller, February 2006.  
 "A Fresh Look at the Value Added Tax" in *The Challenges of Tax Reform in a Global Economy*,  
 "Education Reform in Bosnia," Sarajevo, Bosnia, May 2005.  
 "Do LLCs Explain Declining State Corporate Tax Revenues," *Public Finance R*, 2005.  
 "A National Retail Sales Tax: Consequences for the States," in *Federal Tax Reform and the States*, Tax Notes Special Supplement, October 3, 2005.  
 "How Should A Subnational Corporate Income Tax On Multistate Businesses Be Structured?" *National Tax Journal*, March 2005.  
 "Fiscal Federalism and the States," Forum on Federalism, Salvador Brazil, Dec 2005.  
 "State Tax Collections: Eroding Tax Bases" in *The Book of the States*, The Council of State Governments, 2005.  
 "Principles of Property Taxation and Local Government Finance," International Property Tax Forum, Beijing China March 2005.  
 "The Ongoing Evolution of State Revenue Systems," *Marquette Law Review*, Oct 2004.  
 "Sales Taxation in a Global Economy," in *Taxing the Hard-to-Tax*, Elsevier, 2004.  
 "Do Economic Effects Justify the Use of Tax Incentives *Southern Economic Journal* 2004  
 "Has Internet Access Taxation Affected Internet Use? A Panel Data Analysis" *Public Finance Review* March 2004.  
 "Prospects and Challenges for State and Local Governments in a Digital World," in *State and Local Finances Under Pressure*, Edward Elgar, 2003.  
 "Total State and Local Business Taxes: Fiscal 2003 Update *State Tax Notes*, Oct. 2003.  
 "Three Characteristics of Tax Structures have Contributed to the Current State Fiscal Crises," *State Tax Notes*, August 6, 2003.  
 "U.S. States: Corporate Taxes Wane," *Federations*, February-March, 2003.  
 "Destination Based Indirect Taxation: The Case of Bosnia and Herzegovina," *European Journal of Law and Economics*, vol. 16, 2003.

"To Tax or Not to Tax: The Case of Electronic Commerce," *Contemporary Economic Policy*, October 2002.

"State Corporate Tax Revenue Trends: Causes and Possible Solutions" *National Tax Journal*, September 2002.

"Subnational Taxing Options: Which is Preferred, A Retail Sales Tax or a VAT?" *Journal of State Taxation*, Winter 2003.

Stability and Equity in Education Finance Formulas *Journal of Education Finance* Spr2002

"Issues in the Design and Implementation of Production and Consumption VATs for the American States," *State Tax Notes*, January 21, 2002.

"Eroding Sales Tax Revenues and the Impact of e-Commerce," *Government Finance Review*, February 2002.

"Fiscal Federalism in Bosnia/Herzegovina: The Dayton Challenge," in *Intergovernmental Fiscal Relations in Fragmented Societies*, Helbing & Lichtenhahn, Bale, 2001.

"E-Commerce and Local Sales Taxes: Estimates of Direct and Indirect Revenue Losses," *Municipal Finance Journal*, Fall 2001.

"Taxing E-Commerce: Neutral Taxation is Best for Industry and the Economy?" *Quarterly Journal of Electronic Commerce*, Vol. 1, Number 2, 2000.

"E-Commerce in the Context of Declining State Sales Tax Bases," *National Tax J*, Dec 2000.

"Can the Sales Tax Survive a Future Like its Past?" in *The Future of State Tax Policy*, edited by David Brunori, Urban Institute Press, 1998.

"Fiscal Federalism in Bosnia and Herzegovina: The Dayton Challenge" in *Fiscal Federalism in Developing Countries*, Cambridge University Press, 1998.

"Municipal Finance and Intergovernmental Relations," Governance and Capacity Building in the Asia Region, Asian Development Bank, Manila Philippines, January 1998.

"The Sales Tax and Electronic Commerce: So What's New?" *National Tax J*, Sept 1997.

"Importance of the Sales tax in the 21<sup>st</sup> Century," in *The Sales tax in the 21<sup>st</sup> Century* Praeger Press, 1997.

*The Sales Tax in the Twenty-First Century*, Editor, Praeger Press, 1997.

*Strategic Options for Urban Infrastructure Management*. Urban Management Programme Policy Paper, The World Bank, 1994.

"Sustainability of Potable Water Services in the Philippines" *Water Resources Research*, 1993.

"Economic Development: Do State and Local Government Policies Matter?" in *Economic Adaptation: Alternatives for Rural America*, Westview Press, 1993.

"The Effect of Federal Policies on Local Public Infrastructure Investment" *Public Finance Quarterly*, October 1992.

*Sales Taxation: Critical Issues in Policy and Administration*, Editor, Praeger, 1992.

"Local Public Policies and Interregional Business Development" *Southern Economic J*, Oct 1990.

"Economic Impacts of the Nissan Plant's Location in Tennessee," in *The Politics of Industrial Recruitment* Greenwood Press, 1990.

"Metropolitan Fiscal Structure and Migration" *J of Regional Science*, November 1989.

"Economic Aspects of Taxing Services" *National Tax Journal*, March 1988.

Numerous other publications dating back to January 1978.

VITA

**Matthew N. Murray**

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**CURRENT POSITIONS:**

Professor of Economics and Ball Corporation Professor of Business  
Associate Director, Center for Business and Economic Research  
Director, Public Administration Major in Economics  
Baker Center Faculty Associate, Baker Center

**CONTACT INFORMATION:**

717 Stokely Management Center  
Knoxville, TN 37996-0570  
phone: (865) 974-5441  
fax: (865) 974-3100

**EDUCATION:**

Ph.D., 1986, Syracuse University  
M.A., 1985, Syracuse University  
B.A., 1982, University of Northern Iowa

**FIELDS OF SPECIALIZATION:**

Public Finance and Public Policy  
Labor and Health  
Applied Microeconomics

**SELECTED REFEREED PUBLICATIONS:**

- “The SSTP and Technology: Implications for the Future of the Sales Tax” (with Leann Luna and William F. Fox). National Tax Journal LXI (2008): 823-842.
- “Interactions Between Welfare Caseloads and Local Labor Markets” (with Brian Hill). Contemporary Economic Policy 26 (2008): 539-54.
- “What Factors Influence the Structure of the State Income Tax?” (with Jason Fletcher). Public Finance Review 36 (2008): 475-96.

- "Competition Over the Tax Base: The State Sales Tax" (with Jason Fletcher). Public Finance Review 34 (2006): 258-281.
- "Interstate Tax Uniformity and the Multistate Tax Commission" (with David Sjoquist and Bartley Hildreth). National Tax Journal LVIII (2005): 575-590.
- "How Should a Subnational Corporate Income Tax on Multistate Businesses Be Structured?" (with William F. Fox and LeAnn Luna), National Tax Journal LVIII (2005): 139-159.
- "Do Economic Effects Justify the Use of Fiscal Incentives?" (William F. Fox), Southern Economic Journal 71 (2004): 78-92.
- "Explaining Interjurisdictional Variations in Sales Tax Productivity" (with Richard Hawkins), Public Finance Review 32 (2004): 82-104.
- "To Tax or Not To Tax? The Case of Electronic Commerce" (with Don Bruce and William F. Fox), Contemporary Economic Policy 21 (2003): 25-40.
- "Stability and Equity in Education Finance Formulas" (with William F. Fox and Patricia Price), Journal of Education Finance 27 (2002): 1013-1028.
- "Urban Malls, Tax Base Migration and State Intergovernmental Aid" (with Stanley Chervin and Kelly Edmiston). Public Finance Review 28 (2000): 309-334.
- "The Sales Tax and Electronic Commerce: So What's New?" (with William F. Fox) National Tax Journal L (1997): 573-592.
- "The Implications of Expanded School Choice" (with Sally Wallace). Public Finance Review 25 (1997): 459-473.
- "Administration and Compliance Aspects of a National Retail Sales Tax." National Tax Journal L (1997): 167-182.
- "Sales Tax Auditing and Compliance." National Tax Journal XLVIII (1995): 515-530.
- "Audit Selection and Income Tax Underreporting" (with James Alm and Roy Bahl). Journal of Development Economics 42 (1993): 1-33.
- "Firm Size, Employment Risk and Wages: Further Insights on a Persistent Puzzle" (with John W. Mayo). Applied Economics 23 (1991): 1351-1360.
- "Erosion of the Tax Base in Developing Countries" (with James Alm and Roy Bahl). Economic Development and Cultural Change 39 (1991): 849-872.
- "Local Public Policies and Interregional Business Development" (with William F. Fox). Southern Economic Journal 57 (1990): 413-427.

"Tax Structure and Tax Compliance" (with James Alm and Roy Bahl). The Review of Economics and Statistics LXXII (1990): 603-613.

"Economic Aspects of Taxing Services" (with William F. Fox). National Tax Journal XLI (1988): 19-36.

**OTHER SELECTED PUBLICATIONS:**

"Business Attitudes Toward Education in Tennessee" (with Vickie Cunningham and Brian Shone).  
Prepared for the Comptroller of the Treasury. Knoxville, TN: Center for Business and Economic Research, The University of Tennessee, July 2008.

"The Local Government Response to the Basic Education Program: Equity, Spending and Local Tax Effort" (with Laura Ullrich). Prepared for the Tennessee Advisory Commission on Intergovernmental Relations. Knoxville, TN: Center for Business and Economic Research, The University of Tennessee, October 2008.

"Education Crossroads" (with CBER staff). Prepared for the Comptroller of the Treasury. Knoxville, TN: Center for Business and Economic Research, The University of Tennessee, December 2007.  
(Includes web site [www.educationcrossroads.com](http://www.educationcrossroads.com) sponsored by the State Comptroller.)

"Would Tax Evasion and Tax Avoidance Undermine a National Retail Sales Tax?" in Tax Policy and the Real World edited by Joel Slemrod, Cambridge University Press, 1999.

"The Franchise Tax," in The Encyclopedia of Taxation and Tax Policy (Joseph Cordes, Robert Ebel and Jane Gravelle, editors). Urban Institute Press, 1999.

"State Taxation of Telecommunications and Electronic Commerce," in The Encyclopedia of Taxation and Tax Policy (Joseph Cordes, Robert Ebel and Jane Gravelle, editors). Urban Institute Press, 1999.

"Fiscal Incentives and Local Economic and Fiscal Performance" (with William F. Fox), in Local Government Tax and Land Use Policies in the United States: Understanding the Links, edited by Helen Ladd, Edward Elgar, 1998.

"Analysis of the Basic Education Formula: Stability, Equity and Adequacy" (with William F. Fox and Patricia A. Price). Prepared for the Tennessee Department of Education and the State Board of Education. Knoxville, TN: Center for Business and Economic Research, The University of Tennessee, February, 1997.

"Intergovernmental Aspects of Growth and Stabilization Policy (with William F. Fox), in Intergovernmental Fiscal Relations: Perspectives and Prospects, edited by Ron Fisher, Kluwer Press, 1997.

Survey of Business, vol. 28 (1993), editor. "New Directions: Reform and Choice in Education." Knoxville, TN: Center for Business and Economic Research, The University of Tennessee, Spring 1993.

## 9. Appendix B4 Resume

Mary Rolando  
Policy Analyst  
Governor's Office of Children's Care Coordination  
State of Tennessee  
mary.rolando@tn.gov

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### Professional Experience

- Recent Leadership Responsibilities in Systems Change
  - Home Visitation Review: An interdepartmental review of all Home Visitation Programs to strengthen the programs as a system, inform best practices, use limited resources wisely and address impending federal legislation. 2009/2010
  - Tennessee Integrated Court Screening and Referral Project: Development and implementation of a standard screening and referral system in conjunction with existing mental health and substance abuse services to address the mental health needs of youth in contact with the juvenile justice system. 2009
  - Public Chapter 1062—Council on Children's Mental Health: Principal Member of the Council statutorily required to plan for and implement a system of mental health care for children and youth served by multiple agencies; Principle author of the required February 2009 Report to the Legislature. 2007/Ongoing
  - Public Chapter 1197—Resource Mapping: Principle Member in the process to meet statutory requirements to develop a Tennessee children's resource map of services and programs across state agencies and systems, their funding sources, target populations, performance measures and intended outcomes to better inform the Governor and Legislature in developing policy, setting goals and resource allocation. 2009 & forward.
  - Collaborative on Funding and Administration of Adolescent Substance Abuse Services: A multi-departmental collaborative involving resource mapping to align financial resources and administrative practices resulting in quality services for more Tennessee children/youth, considered a model project by SAMHSA. 2008
  - Analysis and Reformation of Tennessee's Early Intervention System: An analysis of the state's Early Intervention System, done at the request of the Department of Education, to examine ways in which the program might operate more efficiently and serve more children, which resulted in reforming the statewide system with administrative integration, significant administrative cost savings, expansion of services and increased child-find.
- Other Experience as Senior Policy Analyst
  - Planned expansion of the law and services for people with developmental disabilities.

- Mental Health & Mental Retardation Law Revision Commission, Executive Director. Conceptualized, organized and directed a comprehensive rewrite of Title 33, the Tennessee Mental Health and Mental Retardation Law, for the first time since its inception 35 years earlier. It resulted in passage of legislation that strengthened reliance on community support services, sustained rigorous criteria for psychiatric hospitalization, extended the protections of the law from the more narrow definition of mental retardation to that of developmental disabilities (now intellectual disabilities), and created new chapter for Children's Services.
- Administrator/ Strategist/ Planner
  - Assistant Commissioner, Mental Health Services, Department of Mental Health/Mental Retardation. Chief administrator in the state's public mental health system for over 68,000 people, a budget of approximately \$350M, community mental health organizations and 5 accredited mental health hospitals. 1987/1994
  - Director, Department of MH/MR, Office of Policy Planning.
  - Assistant Supt, Residential Services, Clover Bottom Developmental Center.
  - Director, Standards and Compliance, Clover Bottom Developmental Center.
  - Program Administrator, Greene Valley Developmental Center.
- Consultant
  - Commission on the Future of TennCare, Member. Governor-appointed Blue ribbon commission.
  - Behavioral Health Organizations re: managed care and government relations.
  - "Erasing the Stigma: What Are the Issues?" Initiator; Chair of symposium.
  - "Erasing the Stigma: Rethinking Perceptions of Mental Illness". Producer. Edited symposium for broadcast on public television nationwide.
  - Shaw Panel: Member. Reviewed metropolitan government related to jail and hospital services.

## Education

- Master of Science, Behavior Modification Program, Rehabilitation Institute, Southern Illinois University, Carbondale, Illinois; 1971-73
- Bachelor of Arts, Psychology, SIU, Carbondale, Illinois, 1967-61
- Nashville School of Law, 1977-78

## Recognition

- Frank G. Clement Community Service Award, Tennessee Association of Mental Health Organizations
- President's Award, The Arc of Tennessee
- Tennessee Voices for Children, for leadership in revision of Title 33
- CABLE Spirit of Leadership Award

*9. Appendix B5 Resume*

**CURRICULUM VITAE**

of

Timothy Keith Webb  
710 James Robertson Parkway  
6th Floor, Andrew Johnson Tower  
Nashville, Tennessee 37243  
(615) 741-5158  
tim.webb@tn.gov

**Certification (Tennessee)**

Administrator's License (480); Superintendent (090)  
Teacher: Elementary (101); Psychology (080); General Science (014)

**Education**

Doctoral Degree, Nova Southeastern University, 2003 (Education Leadership)  
Masters Degree, Middle Tennessee State University, 1996 (Education Leadership)  
Bachelors Degree, Regents College, 1988 (Liberal Studies)  
Associates Degree, Columbia State Community College, 1985

**Employment**

Tennessee Department of Education (2003-Present)  
Commissioner  
Deputy Commissioner  
Assistant Commissioner, Division of Resources and Support Services  
Administration (1997-2003)  
Superintendent of Lewis County Schools  
Lewis County Middle School Assistant Principal  
Teaching (1990-1997)  
Middle School Mathematics and Social Studies  
Military, Tennessee Army National Guard, Retired (1980-2000)  
Battalion Staff Officer (Operations and Logistics)  
Detachment Commander  
Platoon Leader  
Platoon Sergeant

**Professional Affiliations**

Education Commission of States, Commissioner  
University of Tennessee Board of Trustees, Member  
Tennessee Board of Regents, Member  
Education Information Management Advisory Consortium - Chair  
Longitudinal Data Systems Task Force - Member  
National Center for Education Statistics - Forum Member  
Deputy's Leadership Commission - Executive Committee  
National Assessment Governing Board Task Force - Co-Chair

Decision Support Architecture Consortium – Tennessee Representative  
TNII Steering Committee – TNDOE Representative  
ConnecTen Advisory Council – TNDOE Representative  
TETA Board – TNDOE Representative  
BEP Review Committee – TNDOE Representative  
Tennessee Organization of School Superintendents  
Middle Tennessee Superintendents’ Study Council, Chairman  
Tennessee Superintendents’ Executive Council, Vice-Chairman  
American Association of School Administrators, Advisory Council Member  
American Association of School Administrators, Delegate Assembly Member  
Dropout Prevention Network, Member  
Association for Supervision and Curriculum Development, Member  
Tennessee Academy for School Leaders Advisory Council, Member  
Tennessee CEO Professional Development Advisory Council, Member  
Tennessee Institute for School Leaders, Consultant  
Phi Gamma Sigma International Professional Society, Member

### **Service**

American Cancer Society Relay for Life, Lewis County Chairman (2003)  
Lewis County Education Foundation, Member (1999-Present)  
Lewis County Health Council, Member (1999-Present)  
Lewis County Youth Council, Chairman (2000-Present)  
Lewis County Chamber of Commerce, Member (1999-Present)  
Workforce Investment Board, Member (2000-Present)  
Workforce Investment Board Strategic Planning Committee, Chairman (2003)

# Project Narrative

## Project Narrative - Appendix C Current Status of State's Longitudinal Data System

Attachment 1:

Title: **Appendix C** Pages: **1** Uploaded File: **C:\Documents and Settings\CA18071\Desktop\UI\Appendix C.pdf**

*10. Appendix C: Current status of State's Longitudinal Data System*

CAPABILITIES & ELEMENTS	CURRENT STATUS	OUTCOMES
A unique student identifier that connects student data across key databases across years.	Tennessee has developed and is using a unique student identifier in its P-12 LDS.	The MPI will support the existing identification system and facilitate its expansion to include public service data from multiple agencies.
Student level enrollment, demographic and program participation information.	This information is currently available and reported on in the P-12 TLDS.	Merging historic TVAAS data with more recent TDOE data will yield almost 20 years of retrospective data on student demographics.
Student level information about points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs.	This information is currently available and reported on in the P-12 TLDS	This capability will be enhanced by integrating historic and recurring data within a more advanced student identification system.
The capacity to communicate with higher education data systems.	The P-12 TLDS and Tennessee Higher Education have nodes on the same fiber ring for data exchange.	This capability will be made possible through collaboration with CBER and THEC. The P-20 TLDS will include student-level data from all two- and four-year higher education institutions in Tennessee.
A state data audit system assessing data quality, validity and reliability.	This work is ongoing.	This work will be optimized through this grant period with a new data cleansing tool at TDOE and a unified TLDS architecture at CBER.
Information on students not tested, by grade and by subject.	This information is currently available through Assessment data in the P-12 TLDS.	This information will be integrated into a broader P-20 TLDS.
Yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary secondary Education Act 1965.	This information is currently available through Assessment data in the P-12 TLDS.	This information will be integrated into a broader P-20 TLDS.
A teacher identification system with the ability to match teachers to students.	This information is currently available through the P-12 TLDS.	This information will be utilized to investigate effective teaching methods.

Student-level transcript information, including information on courses completed and grades earned.	This information is currently available in the higher education data system.	eTranscript will be made available through this grant period.
Student-level college readiness test scores.	This data currently exist through the P-12 Assessment Data in the TLDS.	This information will be integrated into a broader P-20 TLDS, in addition to college attainment and other higher education outcomes.
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.	This information is currently available in the higher education data system.	This process will be enhanced through this grant period.
Data that provide other information determined necessary to address alignment and adequate preparation for success in postsecondary education.		Planned this grant period.

# Project Narrative

## Project Narrative - Appendix D Letters of Support

Attachment 1:

Title: **Letters of Support Charters** Pages: **39** Uploaded File: **C:\Documents and Settings\CA18071\**  
**\Desktop\UNLETTERS OF SUPPORT CHARTERS.pdf**

LAMAR ALEXANDER  
TENNESSEE

## United States Senate

WASHINGTON, DC 20510

December 2, 2009

The Honorable Arne Duncan  
Secretary  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

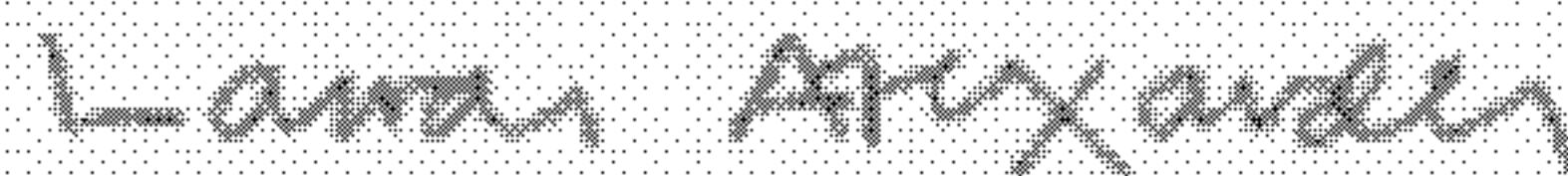
Dear Arne,

I am writing in support of the application submitted by the Tennessee Department of Education (TDOE) for the Statewide Longitudinal Data Systems (SLDS) Grant Program.

TDOE will use these funds to develop an integrated data system that will provide a basis for analyzing economic benefits of education and community development. This project will go beyond traditional measures like teacher/student relationships, classroom experiences, course completion, and test scores to include physical health, children's services, social welfare, and mental health.

I hope you will give all due consideration to this application. I'd be glad to furnish additional information, or your office may wish to be in touch with Brent Wiles with my office at (202) 224-2189.

Sincerely,



Lamar Alexander  
United States Senator

PHIL BREDESEN  
THE GOVERNOR OF TENNESSEE

30 November 2009

Review Panel  
Institute of Education Sciences  
National Center for Education Statistics  
1990 K Street, N.W., Room 9023  
Washington, DC 20006-5651

RE:     Statewide Longitudinal Data Systems in the 2009 American Recovery and Reinvestment  
          Act CFDA Number: 84.384

To the Review Panel:

The State of Tennessee is positioning itself to make significant improvements in the education system, supported by a Statewide Longitudinal Data System that goes beyond the standards for completing P20 with post secondary and workforce development information.

Tennessee is committing itself not only to completion of the P20 student-level data base but to linking data from other child serving departments to support improvements in program administration and policy within Education and across state government. Aligning information from the other agencies with the Longitudinal Data System is in recognition that there are many factors outside the classroom that influence student performance and achievements. The State's proposal will help to inform best practices and reduce achievement gaps by allowing analysis of factors that contribute to educational outcomes.

The State's proposal is very much in line with my goals to use limited resources wisely and to enhance service delivery through a shared vision for the education system. I am very much in support of the Department of Education's proposal, before you on its own merits for innovation and visioning, and as it fits with the State's assurances for the Race To The Top relative to Data Systems.

I offer a strong endorsement the Department of Education's proposal and will support the process and outcomes of the project when it is funded.

Sincerely,



Phil Bredesen



**STATE OF TENNESSEE**

November 24, 2009

**Phil Bredesen**  
Governor

Review Panel  
Institute of Education Sciences  
National Center for Education Statistics  
1990 K Street, NW, Rm. 9023  
Washington, DC 20006-5651

RE: Statewide Longitudinal Data Systems in the 2009 American Recovery and  
Reinvestment Act

CFDA Number: 84.384

To the Review Panel:

The Department of Education's application to extend its Statewide Longitudinal Data System to P20 represents unprecedented interdepartmental collaboration to improve what is known about Tennessee's students.

In addition to expanding use of the existing Longitudinal Data System by teachers and school administrators and completing the P20 data base, the State is prepared to develop data sharing agreements that will allow important research and reporting about variables that influence students' educational outcomes and experiences. The State's application capitalizes on a solid partnership with the University of Tennessee Center for Economic and Business Research, which already utilizes workforce and welfare data, among other sources, to provide economic forecasts and reports to the Administration. Inclusion of multi-departmental data will provide a powerful base of information, useful to Education for implementing strategies that are responsive to unique cultural differences, environmental conditions, issues of physical and behavioral health, and useful to the other departments in assessing how they can improve educational achievements of clients whom they serve.

As Deputy to the Governor, I pledge to sustain the role of my Office in bringing the departments together, as I have done during the development of the grant application, and will bring to bear full support of the Administration going forward to achieve meaningful agreements for data sharing and informative policy analyses.

State Capitol, Nashville, Tennessee 37243-0001  
Telephone No. (615) 741-2001



**STATE OF TENNESSEE**  
**Governor's Office of Children's Care Coordination**  
27<sup>th</sup> Floor, William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue  
Nashville, Tennessee 37243-1102  
Phone: 615-741-6192  
Fax: 615-741-5719

**Phil Bredesen**  
Governor

**Bob Duncan**  
Director

November 30, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

As Director for the Governor's Office of Children's Care Coordination, I appreciate the significance of and fully support the Department of Education's proposal to complete the Statewide Longitudinal Data System through P20 and to complement the LDS with policy information that more fully describes students and the conditions that contribute to educational performance, achievement gaps and best practices.

A fundamental responsibility of this office is the translation of science into public policy. Our office works with the child serving departments to identify and implement best practices in all manner of programs and services. DOE's proposal to link data elements from the other departments with the LDS will give the state a vehicle to build evidence of best practice not only for the education system but also for related systems such as health, human services, children's services, mental health and workforce development. Going forward there will be increasing pressure to fund the programs and services that demonstrate most favorable outcomes. DOE's proposal to complete and extend the LDS to P20, surrounded by complementary data sets, will support that agenda.

As a partner in the development of DOE's application, the GOCCC commits resources of this office to implementation of the project. The Governor's priority on education has been clear and consistent. Implementation of this project, coupled with Race To The Top support, will mark a turning point for Tennessee and be an outstanding legacy of the Administration.

DOH has the full support of this office for this project.

Sincerely,

Bob Duncan

November 10, 2009

Review Panel  
Institute of Education Sciences  
National Center for Education Statistics  
1990 K Street, NW, Rm. 9023  
Washington, DC 20006-5651

RE: Statewide Longitudinal Data Systems in the 2009 American Recovery and Reinvestment Act CEDA  
Number: 84.384

To the Review Panel:

On behalf of the University of Tennessee, Knoxville, I am pleased to provide a letter of support for the Center for Business and Economic Research's (CBER) collaboration with the State Department of Education on their grant application. CBER has worked with the Tennessee Department of Education and an array of other state agencies to develop a proposal that would enable the creation of a statewide longitudinal data system. This database would be centered on the education of children with linkages to a host of agencies that provide support to children and their families.

CBER was established in 1937 as a research auxiliary of the College of Business Administration. Currently, the Center is the home to five faculty members from three different academic units (accounting, economics and geography); four of these faculty members have earned tenure in their academic units. This unique structure of academic appointments in an applied research center has helped CBER establish itself as an objective source for policy analysis and database development for a number of state agencies. The Center is also involved in a series of important policy modeling activities supported by state contracts including economic, tax revenue, welfare caseload and unemployment insurance claims forecasts. The core competency of CBER is policy analysis built around state-of-the-art models and high quality data systems.

The Center has extensive experience in data sharing and communication of policy findings to policymakers and to the public. Especially noteworthy is the role CBER has played since 1969 in developing the *Tennessee Statistical Abstract*, a comprehensive compendium of data mirroring the counterpart *Statistical Abstract of the United States*.

On behalf of the University of Tennessee, Knoxville, I extend my support on behalf of CBER in this partnership with Tennessee Department of Education. Funding for this project will prove to be invaluable in improving the administration of education and the quality of education services in Tennessee. The scope of work that is being proposed will serve as a model for education data warehousing initiatives and policy analysis in other states.

Sincerely,

  
Jimmy G. Cheek  
Chancellor



OFFICE OF THE PRESIDENT

November 11, 2009

Review Panel  
Institute of Education Sciences  
National Center for Education Statistics  
1990 K Street, NW, Room 9023  
Washington, DC 20006-5651

RE: Statewide Longitudinal Data Systems in the 2009 American Recovery  
and Reinvestment Act – CFDA Number: 84.384

To the Review Panel:

The University of Tennessee is pleased to offer a letter of support on behalf of the Center for Business and Economic Research (CBER) which has partnered with the Tennessee Department of Education (DOE) on the Department's grant proposal for a Statewide Longitudinal Data System. Funding for this project would enable Tennessee to make great strides forward in improving the administration and delivery of educational services, as well as enhancing educational outcomes for students throughout the education pipeline and into the workforce.

With decades of experience in supporting policy analysis, model development and data analysis for state government agencies in Tennessee, and as a longstanding U.S. Census Bureau State Data Center, CBER is in an ideal position to partner with the DOE in developing the longitudinal database. In addition, CBER has an established reputation as a credible and neutral third party in its interactions with agencies across the state and its dissemination to the public at large. The academic faculty of CBER insure neutrality and offer continuity and sustainability for a multi-year project like that being proposed here.

The University of Tennessee fully supports this important initiative that will benefit our state and the nation.

Sincerely,

Jan P. Simcik  
Interim President

800 Andy Hall Tower • Knoxville, TN 37996-0160 • Phone: 865/974-2241 • Fax: 865/974-3153



STATE OF TENNESSEE  
DEPARTMENT OF FINANCE AND ADMINISTRATION  
STATE CAPITOL  
NASHVILLE, TENNESSEE 37243-0285

DAVE GOETZ  
COMMISSIONER

November 17, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

The Department of Finance and Administration participated in the planning for the Department of Education's application for funds from the Institute of Education Sciences to support completion of the current Longitudinal Data System and the Initiative to extend the system to incorporate relevant policy information about other conditions that influence teacher preparedness, school readiness and academic achievement.

The keystone of this Administration has been commitment to Education, which is unwavering even considering the serious economic conditions confronting the state.

The value of DOE's application cannot be overstated. When funded, as conceptualized, it will allow the state to review the educational, circumstantial and, importantly, health conditions that influence learning and ultimately economic viability of Tennessee's citizens and of the state overall.

The Department of Finance and Administration lends its full support to this grant proposal and its implementation.

Sincerely,

A handwritten signature in black ink, appearing to read "M. D. Goetz, Jr.", written over a horizontal line.

M.D. Goetz, Jr.

cc: Governor Phil Bredesen  
Deputy Governor John Morgan  
Dr. Bill Fox, University of Tennessee



RICHARD G. REDDA  
*Executive Director*

STATE OF TENNESSEE  
**HIGHER EDUCATION COMMISSION**  
PARKWAY TOWERS, SUITE 1900  
NASHVILLE, TENNESSEE 37243-0830  
(615) 741-3605  
FAX: (615) 741-6230  
[www.athe.tn.us/thec/](http://www.athe.tn.us/thec/)

PHIL BRITTSSEN  
*Governor*

December 1, 2009

Review Panel  
Institute of Education Sciences  
National Center for Education Statistics  
1990 K Street, NW, Rm. 9023  
Washington, DC 20006-5651

RE: Statewide Longitudinal Data Systems in the 2009 American Recovery and Reinvestment Act

CFDA Number: 84.384

To the Review Panel:

The Tennessee Higher Education Commission (THEC) is pleased to join with the Tennessee Department of Education, the Governor's Office, and a host of partners in the state in seeking a Statewide Longitudinal Data Systems grant to link K-12, higher education, and workforce data to aid research and reporting and to improve our understanding of complex issues that are connected across the P-16 continuum.

The source data systems in the state are well-established – for example, the unit record data in THEC's Student Information System dates back to 1995 – but these data exist in silos. We have very good working relationships with our colleagues representing other segments of the P-16 pipeline, and all sides are willing to share data files around questions of common concern, but there is a certain amount of “reinventing the wheel” whenever we want to address a research or policy question that cuts across levels or systems.

Even so, we have worked around the logistical challenges to complete studies of:

- the college freshman success of recent high school graduates;
- the projected supply and demand of future teachers in the state; and
- labor market participation and earnings of recent public college graduates.

Also, we are currently working with the Tennessee Department of Education and National Student Clearinghouse to track the postsecondary enrollment choices and progression patterns of several cohorts of recent high school graduates.

However, these efforts need to become more automated and routine. Our data analytic needs will only become more cross-cutting as Tennessee (1) works through the College and Career-Ready Policy Institute on a P-16 accountability framework to support the high school curricular reforms of the Tennessee Diploma Project; (2) addresses the fundamental data, assessment, and compensation reforms associated with Race to the Top; and (3) implements and evaluates a series of state policy

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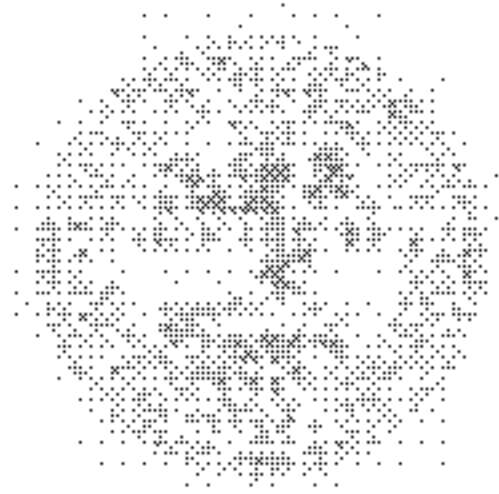
reforms (called RAMP UP) to accelerate student transitions from high school to college.

I join Governor Phil Bredesen and Commissioner of Education Tim Webb in affirming our commitment to building a statewide longitudinal data system that leads to improved preparation, participation, and productivity, ultimately resulting in significantly greater rates of educational attainment in Tennessee.

Your consideration of this request is appreciated. Thank you for providing Tennessee with an opportunity to once again step out as a state leader, this time in the area of comprehensive and connected data systems to support policy reform. Please feel free to contact me if there are any questions.



Richard G. Rhoda  
Executive Director



STATE OF TENNESSEE  
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

220 French Landing Drive  
Nashville, TN 37243  
(615) 741-6642

PHIL BREDESEN  
GOVERNOR

JAMES G. NEELLEY  
COMMISSIONER

November 30, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb:

We are in strong support of the Department of Education's application to complete the Longitudinal Data System to P20. The Department of Labor and Workforce Development stands to benefit greatly from the proposed project.

With the completion of the P20, Tennessee Department of Labor and Workforce Development (L&WD) will have access to quality decision making data to substantiate the value of federally funded programs within our organization. It will allow this department to demonstrate what has transpired in students' lives after completing their education. The programs include, but are not limited to, completion data for Pell Grant Applicant Information, GED Programs, Work Force Training, Unemployment Insurance data, Adult Literacy Programs, Training Grants, English as a Second Language Training, and Tennessee Teens to Work data.

The power of linking these data to the LDS are unmistakable for our respective departments and the state as a whole. We understand DOE has partnered with the UT Center for Business and Economic Research as the independent research organization. This fits well with our business model as this department has an established relationship with the Center, in which much of the data related to the programs named above already resides.

The Department enthusiastically supports the DOE application. We commit to working with DOE during implementation of the grant and will work toward sustaining the P20 system at the grant's conclusion.

Sincerely,

James G. Neelley



STATE OF TENNESSEE

DEPARTMENT OF CHILDREN'S SERVICES

Phil Bredesen  
Governor

Viola P. Miller  
Commissioner

December 2, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

The Department of Children's Services commends Education for the visionary proposal you are making to extend the capacity of DOE's Longitudinal Data System to reflect conditions beyond teacher/student classroom experience. So many variables influence ability and readiness to learn. DCS wholeheartedly endorses the application and we welcome the opportunity to participate in the project when it is funded, evidenced by the Initial DCS Project Charter.

We are optimistic the project will result in far-reaching solutions, addressing policy concerns we share with you about educational attainment of our children in foster care. We know anecdotally it takes children in foster care longer to graduate and that children and youth with IEPs face additional challenges. The ability to analyze the experiences of students in a foster care cohort and youth in transition, based on actual education achievement data, would inform strategies to overcome barriers and also dispel myths about academic performance of the children we serve.

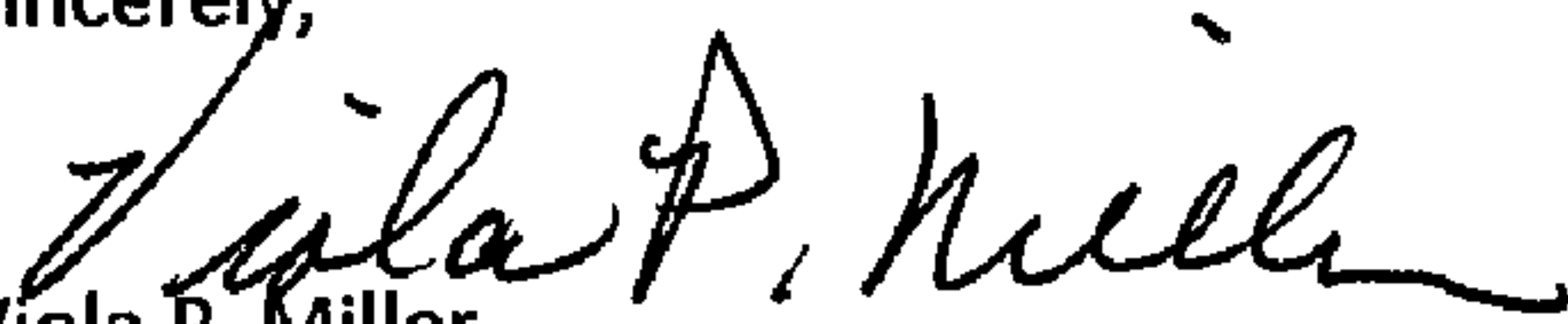
From the perspective of our Juvenile Justice system—itsself a Local Education Authority—we are very interested in enhancing the educational capacity of our schools, implementing approaches that support our classroom teachers and better prepare our students for the workforce. We are statutorily obligated to implement evidence based practices in all program components in our Youth Development Centers, so many facets of the LDS grant proposal could support our objectives as well as address DOE's concerns about reducing achievement gaps.

Completion of the system through P20, coupled with additional data attributable to children served by DCS, has the potential to influence policy development in ways that can only improve education, students' academic achievements and promote resilient Tennesseans long-term.

7th Floor, Cordell Hall Building, 436 Sixth Avenue North, Nashville, Tennessee 37243-1290  
Telephone No. (615) 741-5699

Let me say how excited we are by this opportunity. We are really looking forward to working with you in the future.

Sincerely,

  
Viola P. Miller  
Commissioner

VPM



**STATE OF TENNESSEE  
DEPARTMENT OF HUMAN SERVICES**

CITIZENS PLAZA BUILDING  
401 DEADENICK STREET  
NASHVILLE, TENNESSEE 37243

Telephone: 615-616-4700 FAX: 615-741-4165  
TTY: 1-800-270-1349  
[www.state.tn.us/dhs/www/](http://www.state.tn.us/dhs/www/)

**PHIL BREDENEN**  
Governor

**VIRGINIA T. LODGE**  
Commissioner

November 19, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb:

I am writing to fully endorse the Department of Education's application for funds to support completion and expansion of DOE's Statewide Longitudinal Data System. The project's planned partnership with the University of Tennessee Center for Business and Economic Research is one which directly benefits the Department of Human Services as well as DOE as CBER already manages DHS' Families First, Child Care Center and Child Care Subsidies data. Integration of our data with that of other departments will create a powerful base for the education system overall and for economic forecasting which will be immensely helpful for the Department's program planning. My understanding is that a major component of the proposal is to develop a "360 degree view of the student", filling in current LDS with information about conditions that also contribute to academic achievement and school performance. Clearly, the experience of young children in our child care centers and support through Families First contribute to educational performance. Using data for children that are enrolled in licensed child care settings can help validate the impact of the early childhood child care experience relative to school readiness and learning techniques.

We will welcome the opportunity to serve on the project Steering Committee, helping to set a relevant research agenda and define reports of utility to all the departments involved in the project, and pledge staff participation in building the technical infrastructure and work groups.

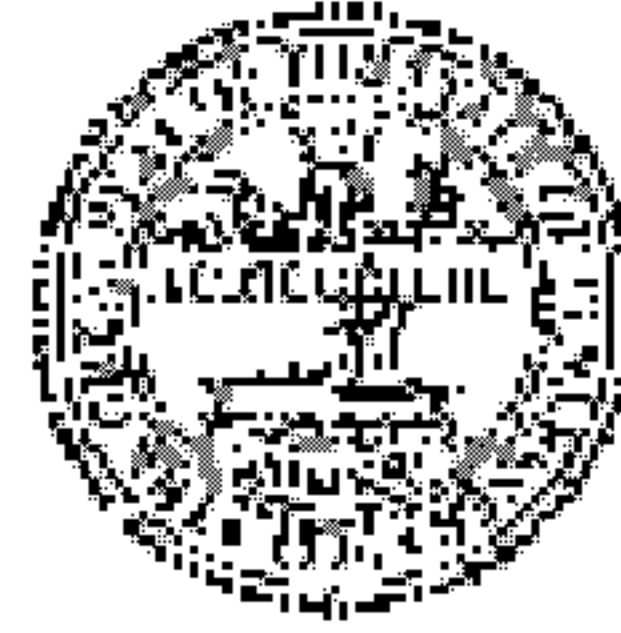
The Department of Education has our full support and commitment to help implement the project when it is funded.

Sincerely,

Virginia T. Lodge  
Commissioner

VTL/pjm

PHIL BREDESEN  
GOVERNOR



GEORGE M. LITTLE  
COMMISSIONER

STATE OF TENNESSEE  
DEPARTMENT OF CORRECTION  
SIXTH FLOOR, RACHEE JACKSON BUILDING  
320 SIXTH AVENUE NORTH  
NASHVILLE, TENNESSEE 37243-0465  
Office (615) 741-1400 • FAX (615) 532-8281

November 24, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 8th Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb:

The Department of Correction commits to participating fully in the visionary proposal you are making to extend Department of Education's (DOE) Longitudinal Data System to incorporate experiences in public systems through age 24 and to reflect conditions beyond teacher/student classroom experience. We know that circumstances and conditions of life influence character, community acceptance, and respect for others.

The ability to analyze, long term, the academic, cultural, and behavioral experiences of students at risk of running afoul of the justice system is important going forward. The ability to inform the Department of Education and the Department of Correction (DOC) of skills and abilities that might prevent incarceration or re-incarceration is a near-term objective that may be met by this project.

We want to improve DOC's educational capacity and help people who are disenfranchised reach a higher level of achievement, much of which depends on one's education. For this reason and many others, we endorse DOE's proposal to complete its statewide Longitudinal Data System and add the extra value of information from the other departments that will help overcome the learning and environmental conditions some Tennesseans experience.

Completion of the system through P20, coupled with additional data elements attributable to children served by Department of Children's Services and the other child serving agencies, has the potential to influence policy development in ways that will improve education, students' academic achievements, and help to develop resilient Tennesseans long term and thus the adult population for which we are responsible.

Sincerely,

  
George M. Little  
GML:GR



STATE OF TENNESSEE  
DEPARTMENT OF HEALTH  
CORDELL HULL BLDG.  
425 5TH AVENUE NORTH  
NASHVILLE TENNESSEE 37243

PHIL BREDESEN  
GOVERNOR

SUSAN R. COOPER, MSN, RN  
COMMISSIONER

November 18, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

The purpose of this letter is to document strong support for Department of Education's application to complete DOE's Statewide Longitudinal Data System. The proposal to link data from Department of Health and the other child serving departments is particularly appealing to us because, from a public health perspective, the relationship between health and education has been greatly ignored. We are confident that the proposed project will help to overcome that circumstance.

Several DOH programs relate directly to educational achievements. Children with special health care needs in Children's Special Services also participate in DOE's Early Intervention System. Immunizations and other preventative services can be linked to school attendance. As we commit to participate in the project when implementation begins, there will likely be other program and policy areas we will want to explore with the Department as to how data sharing can provide information long term about health status as it relates to academic achievement, closing achievement gaps and informing best practices for both of our systems.

We have appreciated the invitation to be a part of planning for the application and welcome the opportunity to collaborate with DOE fully during implementation. We pledge participation in the Steering Committee and Work Group. This clearly is a project that addresses the future of our state from educational, health and public policy perspectives that are unprecedented. You have our full support and pledge of cooperation.

Sincerely,

Susan R. Cooper, MSN, RN  
Commissioner



STATE OF TENNESSEE  
DEPARTMENT OF MENTAL HEALTH AND DEVELOPMENTAL DISABILITIES  
CORDELL HULL BUILDING, THIRD FLOOR  
425 FIFTH AVENUE, NORTH  
NASHVILLE, TENNESSEE 37243

PHIL BREDESEN  
GOVERNOR

VIRGINIA TROTTER BETTS, MSN, JD, RN, FAAN  
COMMISSIONER

November 10, 2019

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

As Commissioner of the Tennessee Department of Mental Health (TDMHDD) and a colleague with you among Tennessee's child serving departments, I enthusiastically support the Statewide Longitudinal Data System Grant Proposal being submitted by the Department of Education (DOE). I understand that this project will support aligning departmental data with DOE's statewide longitudinal data system in order to provide a more comprehensive view of children at any point of entry into the educational system through one's exit.

As you and I have discussed many times, TDMHDD shares your interest in the academic outcomes of our students. Together we recognize that mental health is integral to health, and children have to be healthy to perform well in school. To this end, TDMHDD and DOE have several very successful programmatic collaborations between our departments, such as the School Based Mental Health Liaison Program. This school-based program has yielded very positive outcomes for children who have behavioral problems such as reducing disruptive behavior in the classroom and has also served to change the culture of teachers and administrators in the schools to be more aware of the impact of mental health issues on learning.

Again, TDMHDD staff and I are most supportive of this infrastructure improvement. We believe such a project will, over the long-term, improve the quality of the lives of students who are vulnerable because of many ecological issues, including poor early identification of and intervention in behavioral health problems. We commit to providing staff time to implement the Initial Project Charter that accompanies this letter of support and will formalize a Memorandum of Understanding with DOE when we achieve agreements about data sharing elements and processes.

Sincerely,

Virginia Trotter Betts  
Commissioner  
VTB:ld

TDD (615) 532-6612 (for persons with hearing impairments)



STATE OF TENNESSEE  
**BUREAU OF TENNCARE**  
310 Great Circle Road  
NASHVILLE, TENNESSEE 37243

November 25, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

The TennCare Bureau is pleased to collaborate with the Department of Education as DOE pursues completion of the Statewide Longitudinal Data System to P20 and augments it with data from the other child-serving departments. We endorse the application.

Information shared from TennCare will be limited by the constraints of HIPAA and other regulations, but we pledge to explore with the Department data that might contribute to meaningful intersections of health-related and educational policy issues.

The organizational and infrastructure requirements for your proposal are similar to that of the health information technology structure currently under development in the state. We appreciate recognition of that in the application. Long term, it will be important for major initiatives of these types to be compatible.

As the insurer of the largest segment of the student population in the State, we appreciate the tie between health and educational achievements. TennCare's priority on preventative services is in support of helping children to thrive, enhance their ability to learn, and to become productive citizens as adults in the workforce.

We look forward to participation in the project when it is funded and will assure TennCare representation on the Project Implementation Steering Committee, and Work Groups, as appropriate.

Sincerely,

A handwritten signature in black ink, appearing to read "D. J. Gordon", followed by a horizontal line.

Darin J. Gordon  
Director



STATE OF TENNESSEE  
**TENNESSEE COMMISSION ON CHILDREN AND YOUTH**

Andrew Johnson Tower, Ninth Floor  
719 James Robertson Parkway  
Nashville, Tennessee 37243-6800  
(615) 761-2633 (FAX) 761-6956  
1-800-254-0894

November 16, 2009

Commissioner Timothy Webb  
Department of Education  
Andrew Johnson Tower  
Nashville, Tennessee 37243

Re: Tennessee Statewide Longitudinal Data System

Dear Commissioner Webb:

The purpose of this letter is to express the strong support of the Tennessee Commission on Children and Youth (TCCY) for the Tennessee Department of Education's Statewide Longitudinal Data System proposal for federal funding. TCCY is an independent state agency with a primary mission of advocacy for improving the quality of life for Tennessee children and families and serves as The Annie E. Casey Foundation's KIDS COUNT partner in Tennessee. TCCY is committed to data-driven advocacy to improve public policies and programs for the state's children.

The Department of Education's longitudinal data system proposal is a very well grounded approach to providing a better understanding of the various factors influencing children's opportunities for success in school and in life. TCCY has extensive involvement with the child welfare, juvenile justice and children's mental health systems in Tennessee, and knows the services provided through these systems are very much interrelated and strengthen the foundation necessary to help children become productive citizens.

TCCY serves as the administrative agency for the Council on Children's Mental Health, a legislatively mandated group of children's mental health stakeholders, providers, families and advocates co-chaired by the director of TCCY and the Commissioner of the Department of Mental Health and Developmental Disabilities. The Department of Education has been a strong partner in the Council work because of the interface between a child's progress in school and his/her mental health status.

The Commission and the Council are committed to working with the Department of Education and all other partners in implementation of the statewide longitudinal data system. We believe this will have tremendous benefits in efforts to improve both efficacy of service provision and outcomes for Tennessee children. I hope this proposal receives favorable review and approval. I look forward to working with the Department of Education and all partners in its implementation.

Sincerely,

Linda O'Neal  
Executive Director

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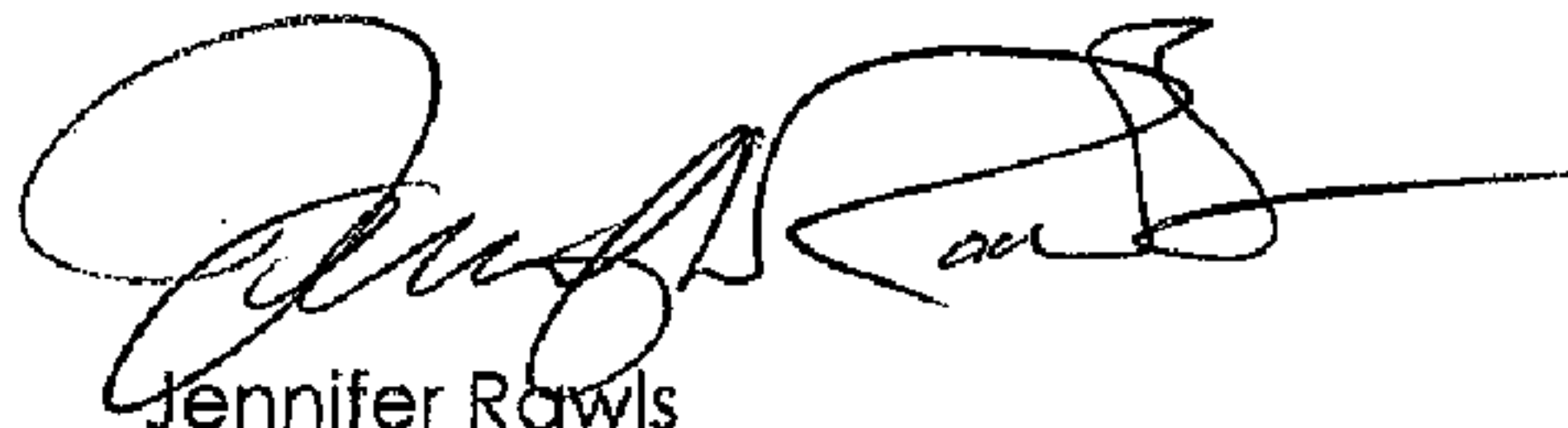
Commissioner Tim Webb  
11/24/2009  
Page 2

academic standards and fortify the ranks of teachers in these curriculum areas, we hope attention will be given to encouraging women and girls to prepare themselves from their earliest years to become leaders in these progressive and lucrative professions. That DOE intends to incorporate policy data from other related agencies will surely enrich the information about experiences that contribute to academic interests as well as achievement and we applaud you for this foresight.

We will watch with interest the progress of this grant when implemented, and long-term, think it will contribute to different academic achievements and better employment opportunities for girls and women. Because women make up greater than 50% of the State's population, doing so can only benefit all of us.

Please feel free to contact me should you have questions or comments relating to the Economic Council on Women's support of the Department of Education's application to support the Statewide Longitudinal Data System. We sincerely appreciate your time and consideration.

Kindest Regards,



Jennifer Rawls  
Executive Director



**PHIL BREDESEN**  
GOVERNOR

STATE OF TENNESSEE  
**DEPARTMENT OF EDUCATION**  
6<sup>th</sup> FLOOR, ANDREW JOHNSON TOWER  
710 JAMES ROBERTSON PARKWAY  
NASHVILLE, TN 37243-3875

**TIMOTHY K. WEBB Ed.D.**  
COMMISSIONER

November 13, 2008

Commissioner Timothy K. Webb, Ed.D.  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb:

I am writing in support of the Tennessee Department of Education's grant application to complete the Statewide Longitudinal Data System. I understand a major component of the grant application will be to complete the data system through higher education and follow students into the workforce. I also understand the application to venture into new territory, integrating data from other child serving departments in order to identify best practices and close achievement gaps.

As the TN Head Start State Collaboration Director, I participate in many activities and serve on numerous boards, task forces and committees directed toward quality early childhood programming and adequate school readiness. These two issues, quality early childhood programming and adequate school readiness, are very important to Tennessee's Head Start programs. Additionally longitudinal data systems that assist in planning and evaluating educational programs, teacher training and administration and coordination of education delivery systems are also very important to Head Start programs and will become more important as early childhood programs expand across the state. Long term effects of early childhood programming are necessary for it to survive in today's environment. Longitudinal data is a crucial key to this success.

The Tennessee Head Start Association will stay abreast of the grant activities to determine if there is a role for Head Start programs to align with aspects of the Longitudinal Data System in the future. Please let me know if I can help.

Sincerely,

Janet Coscarelli, Director  
TN Head Start State Collaboration Office

Cc: Bobbi Lussier, Executive Director, Office of Early Learning

# State of Tennessee



**Economic Council on Women**  
312-8<sup>th</sup> Avenue North  
27th Floor William R. Snodgrass Tower  
Nashville, Tennessee 37243  
Phone 615-253-4265  
Fax 615-253-4263

November 24, 2009

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6th Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

I am writing on behalf of the Economic Council on Women to endorse the Department of Education's application to support the Statewide Longitudinal Data System. We understand and value your proposal to track academic and employment achievement of students through college and into the workforce, and to inform best practices and reduce achievement gaps among groups of students with similar characteristics.

This is very important to the Council as our particular interest is in the economic self sufficiency of women and girls. Recent data released by the Council indicates that there is a significant level of gender discrimination in earnings and wages and that women, regardless of their education level, will likely suffer the effects of the persistent wage gap at some point in their careers. In some instances, women with four-year degrees earn less than their male counterparts who have earned only a high school diploma. In addition to equality concerns, the economic impact of the wage gap is that mothers, regardless of their age, race, marital status or occupational choices have fewer economic resources and a greater need for well-managed support as well as information about available resources. The Statewide Longitudinal Data System can provide the information needed to ensure that parents have access to the programs and resources in an efficient, timely and reliable manner.

We are interested, too, in moving female students away from typically lower paying "pink collar" professions such as secretarial and administrative assistants, nursing and primary school teachers to engineering, the sciences and technology. While the jobs historically filled by women are necessary to a vibrant and growing economy, they are also fairly limited, without additional education, for advancement. Women will most likely continue to be at the forefront in primary education but we hope that young women will see the value of becoming certified to teach math and science, for example, or to choose an educational path that would prepare them to serve as college professors in technical fields. As the state moves forward to improve its

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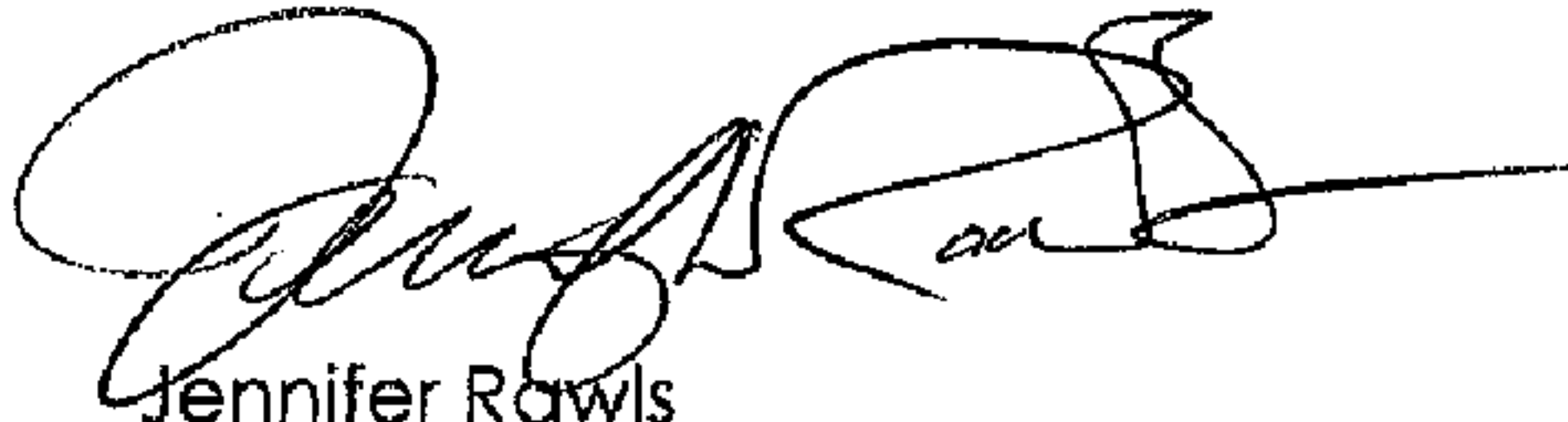
Commissioner Tim Webb  
11/24/2009  
Page 2

academic standards and fortify the ranks of teachers in these curriculum areas, we hope attention will be given to encouraging women and girls to prepare themselves from their earliest years to become leaders in these progressive and lucrative professions. That DOE intends to incorporate policy data from other related agencies will surely enrich the information about experiences that contribute to academic interests as well as achievement and we applaud you for this foresight.

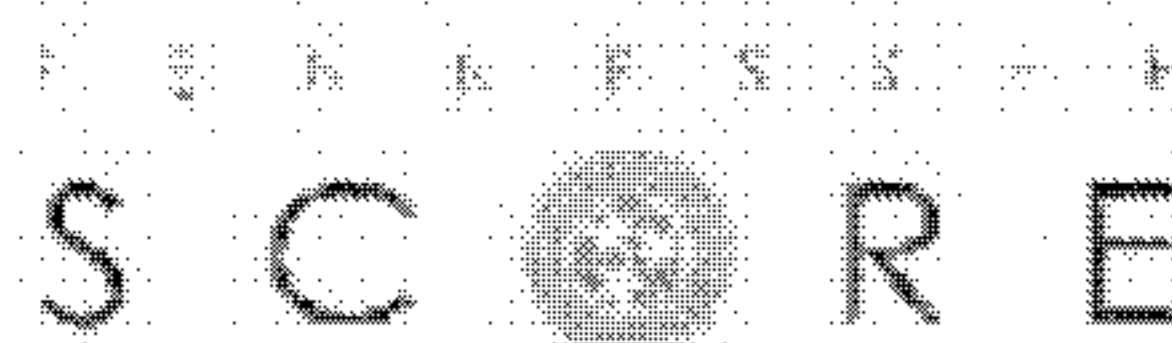
We will watch with interest the progress of this grant when implemented, and long-term, think it will contribute to different academic achievements and better employment opportunities for girls and women. Because women make up greater than 50% of the State's population, doing so can only benefit all of us.

Please feel free to contact me should you have questions or comments relating to the Economic Council on Women's support of the Department of Education's application to support the Statewide Longitudinal Data System. We sincerely appreciate your time and consideration.

Kindest Regards,



Jennifer Rawls  
Executive Director



State Collaborative on Reforming Education

First Amendment Center  
1217 18<sup>th</sup> Avenue South, Suite 325  
Nashville, TN 37203

November 16, 2009

Review Panel  
Institute of Education Sciences  
National Center for Education Statistics  
1990 K Street, NW, Rm. 9323  
Washington, DC 20006-5651

RE: Statewide Longitudinal Data Systems in the 2009 American Recovery and Reinvestment Act  
CFDA Number: 84.384

To the Review Panel:

I am writing to express support for the Tennessee Department of Education's plan for a statewide longitudinal data system (LDS). As someone who has been involved with education on both the national level as a member of the U.S. Senate Health, Education, Labor and Pensions Committee and on the state level as the head of major education reform initiative, I recognize the importance of this plan.

The Tennessee State Collaborative on Reforming Education (SCORE) has been working over the past year to develop a strategy for education reform in Tennessee. As a part of this process, we have held eight statewide meetings in Nashville with education reform leaders from around the country and 56 town hall meetings across the state with educators, parents, policy experts, and state and local officials. These meetings along with the knowledge gained from hundreds of one-on-one interviews and exhaustive research culminated in SCORE's final report which outlines a plan to make Tennessee schools #1 in the Southeast within the next five years.

One of the key recommendations in our report is that the state must utilize data to enhance student learning. Creating an LDS capable of tracking students from the time they are in pre-kindergarten through their participation in the workforce is a critical element to understanding the ways in which we can make our education system meet the needs of Tennessee's students and employers. Not only can this data be used to inform policy decisions, but integration at the local level will ensure that teachers and principals have accurate and up-to-date student data to differentiate instruction and meet the specific needs of each student.

SCORE believes Tennessee's planned LDS is essential for improving education in the state. The plan represents a collaborative effort of departments across the state that will not only contribute valuable data to the system but also allow for cross department research and policy analysis. The LDS will be critical to the state's ability to better serve our students and to facilitate economic development throughout Tennessee.

With warmest regards,

William H. Fried, M.D.

**Tennessee Department of Education**  
**Statewide Longitudinal Data System**  
**Project Charter**  
November 30, 2009  
**Tennessee Department of Labor & Workforce Development**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the public support system through exiting that system.
- DLWD to provide information that can be used to evaluate the effectiveness of the public support system as it relates to workforce engagement by the student.
- To strengthen departmental systems that contribute relevant policy data to the LDS.

**Introduction:** DOE values the information that DLWD can provide to the LDS. In addition DLWD has a shared interest in the academic outcomes of students. Many Federal Performance Measures deal directly with academic achievements of the participants. DLWD looks forward to being able to work with the different agencies involved with this project to provide better Federal Reporting.

**Project Organization:** Tennessee Department of Education is the lead agency. LWD, as a stakeholder, will be a supporting member of the Governance structure with representation on the policy and technology committees, which together set the agenda for research and policy analysis.

**Value Statements:** The ability for DOL to use this project to obtain more timely and accurate data from other agencies for our federal reporting needs would be of great benefit.

DOL Federal Reporting requests public assistance information about participants served by the department being able to cross check with other departments would improve the accuracy of our reporting. The States' Performance Outcomes would also be reported more accurately. Knowing from the issuing agency if a participant has attained a diploma (Secondary or Higher) vs. waiting to hear back from the participant is invaluable. In addition, with additional agencies being link DOL could also exclude participants from inaccurately including them on a performance report if we know they have extenuating circumstances (i.e incarceration or death).

In addition, DOL strives to reduce duplication of services, having a direct link between DOL systems and other state agency systems will provide reliable data about services being provided and help with cost reductions from the elimination of duplication.

**Project Scope and Project Work Plan Summary:** Within the constraints of federal and state regulations, DLWD and DOE will collaborate to

- Identify initial and subsequent data elements of policy information in DLWD IT systems that may contribute to a more holistic view of students.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

- Help reduce reliance on potentially flawed verbal reports by beneficiaries of services or outcomes
- Work towards interdepartmental access about services provided to children served by multiple agencies simultaneously or sequentially which would reduce duplication
- Provide analyses that could inform interdepartmental resource management decisions based on unduplicated counts of beneficiaries of services, more accurate utilization data than is currently possible, and determination of cost effectiveness and efficiency based on measurable outcomes

### **Project Risks**

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within DLWD which could limit resources dedicated to the project. Need to keep communication open at all times to limit this impact.

### **Project Assumptions/Dependencies**

- The data sharing agreement between DLWD and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Individual data sharing agreements will have to be completed with each agency.
- Gaining agreements between DLWD and all the agencies will consume a significant amount of time.
- The new administration elected in November 2010 and installed in January 2011 will support the project.
- Significant time will need to be built in to the plan to have staff available for development, so that it does not interfere with other Labor project priorities

### **Project Budget Summary**

- A significant portion of the projected costs to DLWD to participate in the LDS will be funded by the federal grant.
- DLWD, currently, is limited to contributing the staff time and information needed to fulfill elements of the project charter to the extent allowable.

**Tennessee Department of Education**  
Tennessee Longitudinal Data System 360  
**Project Charter**  
November 2009  
**Tennessee Department of Children's Services**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of child welfare care on education outcomes and education performance.
- To strengthen departmental systems that contribute relevant policy data to the LDS.

**Introduction:** DCS has a shared interest in the academic outcomes of students. DCS has particular interests in the impact of child welfare status, juvenile justice and movement within its systems on academic, employment and health outcomes.

**Project Organization:** Tennessee Department of Education is the lead agency. DCS, as a stakeholder, will be a supporting member of the Governance structure with representation on the Steering Committee and Work Group, which together set the agenda for research and policy analysis.

**Value Statements:** A stronger link education , juvenile justice and child welfare can improve both the quality of foster family systems on behalf of challenged children and youth and academic performance of students and' long-term, lead to a more informed, resilient citizenry. DCS supports infrastructure linkages to streamline transfer of appropriate information relative to children/youth in foster care, youth in transition, students with Individualized Education Plans. and for juvenile justice, outcomes that impact public safety and reduce entrance to department of correction.

**Project Scope and Project Work Plan Summary:** Within the constraints of federal and state regulations, DCS and DOE will collaborate to

- Identify initial and subsequent data elements of policy information in DCS IT systems that may contribute to a more holistic view of students relative to (1) children/youth in custody and (2) youth in transition in compliance with criteria of the National Youth In Transition database.
- Identify data elements about education in TennKids and TFACTS that can be matched with DOE's LDS.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

**Project Risks**

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.

- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within DCS which could limit resources dedicated to the project.

#### **Project Assumptions/Dependencies**

- The data sharing agreement between DCS and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between DCS and DOE will consume a significant amount of time.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

#### **Project Budget Summary**

- The projected costs to DCS to participate in the LDS will be funded by the federal grant.
- DCS will contribute the staff time and information to fulfill elements of the project charter to the extent allowable.

**Tennessee Department of Education**  
**Tennessee Longitudinal Data System 360**  
**Project Charter**  
November 2009  
**Tennessee Department of Human Services**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of health care on education outcomes and education performance.
- To strengthen departmental systems that contribute relevant policy data to the LDS.

**Introduction:** DHS has a shared interest in the academic outcomes of students. DHS has particular interests on the impact of utilization of Free and Reduced Lunch provisions and how child care programs of varying quality status effect academic and health outcomes.

**Project Organization:** Tennessee Department of Education is the lead agency. DHS, as a stakeholder, will be a supporting member of the Governance structure with representation on the Steering Committee and Work Group, which together set the agenda for research and policy analysis.

**Value Statements:** A stronger link between health and nutrition and early childhood programs can improve both the health and academic performance of students and long-term, lead to a more informed, resilient citizenry. DHS supports infrastructure linkages to streamline transfer of appropriate information relative to the Free and Reduced Lunch program and initiate linkage of the Child Care Subsidies services to DOE .

**Project Scope and Project Work Plan Summary:** Within the constraints of federal and state regulations, DHS and DOE will collaborate to

- Identify initial and subsequent data elements of policy information in DHS IT systems that may contribute to a more holistic view of students relative to provision of nutrition benefits and participation in early childhood programs relative to DHS's Child Care STAR quality rating system.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

**Project Risks**

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within DHS which could limit resources dedicated to the project.

**Project Assumptions/Dependencies**

- The data sharing agreement between DHS and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between DHS and DOE will consume a significant amount of time.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

**Project Budget Summary**

- The projected costs to DHS to participate in the LDS will be funded by the federal grant.
- DHS will contribute the staff time and information to fulfill elements of the project charter to the extent allowable.

**Tennessee Department of Education**  
Tennessee Longitudinal Data System 360  
**Project Charter**  
November 2009

**Tennessee Department of Correction**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of behavioral services and early intervention on education outcomes and education performance.
- To strengthen Department of Correction (DOC) systems that contribute relevant policy data to the LDS.

**Introduction:** DOC has a shared interest in the academic outcomes of students. The Department has a particular interest in how education and academic performance may affect antisocial and criminal behavior.

**Project Organization:** Tennessee Department of Education is the lead agency. Department of Correction, as a stakeholder, will be a supporting member of the Governance structure with representation on the Steering Committee and Work Group, which together set the agenda for research and policy analysis.

**Value Statements:** The link between academic achievement and antisocial behavior resulting in incarceration are of importance for prevention, early intervention with students at risk of antisocial behavior and reducing recidivism. A stronger link between Correction and Education can improve the knowledge base about curricula that might increase resistance to risk inducing stimuli and reduce other behavior associated with criminal actions. DOC supports infrastructure improvements to inform its education services and raise curriculum standards to help reduce recidivism.

**Project Scope and Project Work Plan Summary:** DOC and DOE will collaborate to

- Identify initial and subsequent data elements of policy information relative to inmates working toward or obtaining GEDs while incarcerated, juveniles who have been adjudicated as adults up through P20, and inmates between the ages of 18 and 24 in the general population that may contribute to a more responsive approach to educating students at risk.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

**Project Risks**

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.

- Other obligations may assume a higher priority within DOC which could limit resources dedicated to the project.

**Project Assumptions/Dependencies**

- The data sharing agreement between DOH and DOC does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between DOC and DOE will consume a significant amount of time.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

**Project Budget Summary**

- The projected costs to DOC to participate in the LDS will be funded by the federal grant.
- DOC will contribute the staff time and information to fulfill elements of the project charter to the extent allowable.

**Tennessee Department of Education**  
Tennessee Longitudinal Data System 360  
**Project Charter**  
November 2009

**Tennessee Department of Health**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of health care on education outcomes and education performance.
- To strengthen Department of Health (DOH) systems that contribute relevant policy data to the LDS.

**Introduction:** DOH has a shared interest in the academic outcomes of students. The Department has a particular interest in how health care may affect student performance in school.

**Project Organization:** Tennessee Department of Education is the lead agency. Department of Health, as a stakeholder, will be a supporting member of the Governance structure with representation on the policy and technology committees, which together set the agenda for research and policy analysis.

**Value Statements:** The health-education interface has been woefully neglected. A stronger link between health and education can improve both the health and academic performance of students and long-term, lead to a more informed, resilient citizenry. DOH supports infrastructure improvements to reduce redundancies in the health and education systems and to streamline communication for families.

**Project Scope and Project Work Plan Summary:** DOH and DOE will collaborate to

- Identify initial and subsequent data elements of policy information within its IT systems that may contribute to a more holistic view of students relative to health, children's special services, and immunizations.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

**Project Risks**

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within DOH which could limit resources dedicated to the project.

**Project Assumptions/Dependencies**

- The data sharing agreement between DOH and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between DOH and DOE will consume a significant amount of time.
- Lessons learned by DOE relative to HIPAA constraints in DOH services can inform deliberations with TennCare.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

**Project Budget Summary**

- The projected costs to DOH to participate in the LDS will be funded by the federal grant.
- DOH will contribute the staff time and information to fulfill elements of the project charter to the extent allowable.

## Tennessee Longitudinal Data System 360

### Project Charter

November 2009

#### Tennessee Department of Mental Health and Developmental Disabilities

##### This project supports the following goals:

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of health care on education outcomes and education performance.
- To strengthen Department of Mental Health and Developmental Disabilities (DMHDD) systems that contribute relevant policy data to the LDS.

**Introduction:** DMHDD has a shared interest in the academic outcomes of students. The Department has a particular interest in how mental health care and social and emotional development may affect student performance in school.

**Project Organization:** Tennessee Department of Education is the lead agency. DMHDD, as a stakeholder, will be a supporting member of the Governance structure with representation on the policy and technology committees, which together set the agenda for research and policy analysis.

**Value Statements:** Social and emotional factors are integral to academic learning and other positive educational outcomes for children. A stronger link between mental health and education can improve both the health and academic performance of students and long-term, lead to a more informed, resilient citizenry. DMHDD supports infrastructure improvements to integrate mental health and behavioral services with education and academic practices.

**Project Scope and Project Work Plan Summary:** DMHDD and DOE will collaborate to

- Identify initial and subsequent data elements of policy information within DMHDD's IT systems that may contribute to a more holistic view of students relative to children who have been served in Regional Intervention Programs and in Systems of Care, within the constraints of federal and state confidentiality laws.
- Support implementation of DOE's Mental Health Standards and Guidelines with relevant data to the extent possible.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

##### Project Risks

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within DMHDD which could limit resources dedicated to the project.

**Project Assumptions/Dependencies**

- The data sharing agreement between DMHDD and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between DMHDD and DOE will consume a significant amount of time.
- Lessons learned by DOE relative to HIPAA constraints in DOH and TennCare services can inform deliberations with DMHDD.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

**Project Budget Summary**

- The projected costs to DMHDD to participate in the LDS will be funded by the federal grant.
- DMHDD will contribute the staff time and information to fulfill elements of the project charter to the extent allowable.

**Tennessee Department of Education**  
**Tennessee Longitudinal Data System 360**  
**Project Charter**  
**November 2009**  
**TennCare Bureau**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of health care on education outcomes and education performance.
- To strengthen departmental systems that contribute relevant policy data to the LDS.

**Introduction:** TennCare, as a child-serving agency in Tennessee state government, has a shared interest in the academic outcomes of students.

**Project Organization:** Tennessee Department of Education is the lead agency. TennCare, as a stakeholder, will be a supporting member of the Governance structure with representation on the Steering Committee and Work Group, which together set the agenda for research and policy analysis.

**Value Statements:** A stronger link between health and education can improve both the health and academic performance of students and long-term, lead to a more informed, resilient citizenry. TennCare supports infrastructure linkages to assure medical services identified in Individualized Education Plans (IEPs) are provided timely and that assist with provision of Early Periodic Screening Diagnosis and Treatment (EPSDT) services at all ages.

**Project Scope and Project Work Plan Summary:** Within the constraints of HIPPA regulations, TennCare and DOE will collaborate to

- Identify initial and subsequent data elements within TennCare that may contribute to a more holistic view of students.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in the MPI.

**Project Risks**

- Agreements may be difficult to achieve because of incompatible confidentiality regulations or federal regulations limiting on information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within TennCare which could limit resources dedicated to the project.

**Project Assumptions/Dependencies**

- The data sharing agreement between TennCare and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between TennCare and DOE will consume a significant amount of time.
- Lessons learned by DOE relative to HIPPA constraints in DOH services can inform deliberations with TennCare.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

**Project Budget Summary**

- The projected costs to TennCare to participate in the LDS will be funded by the federal grant.
- TennCare will contribute the staff time and information to fulfill elements of the project charter to the extent allowable.

**Tennessee Department of Education**  
Tennessee Longitudinal Data System 360  
**Project Charter**  
November 2009  
**Council on Children's Mental Health**  
**Tennessee Commission on Children and Youth**  
**Department of Mental Health and Developmental Disabilities**

**This project supports the following goals:**

- To develop, provide appropriate access to and effectively use DOE's statewide longitudinal data system (LDS) that provides a 360 degree view of a student at any point from entry into the educational system through exiting that system and entering the workforce.
- To provide policy information that contributes to the effects of child welfare on education outcomes and education performance.
- To strengthen departmental systems that contribute relevant policy data to the LDS.

**Introduction:** The Council on Children's Mental Health (CCMH) and Council co-chairs, Tennessee Commission on Children and Youth (TCCY) and Department of Mental Health and Developmental Disabilities (DMHDD), have shared interests in the academic outcomes of students. CCMH/TCCY/DMHDD have particular interests in the impact of child welfare status, juvenile justice involvement, mental health supports and movement within multiple systems on academic, employment and health outcomes.

**Project Organization:** Tennessee Department of Education is the lead agency. CCMH/TCCY/DMHDD, as a stakeholder, will be a supporting member in the Governance structure with representation on the Steering Committee and Work Group, which together set the agenda for research and policy analysis.

**Value Statements:** A strong link between education and the mental health systems of care can improve the quality of wrap around systems on behalf of challenged children and youth and academic performance of students. Long-term, it can lead to a more informed, resilient citizenry. CCMH/TCCY/DMHDD support infrastructure linkages to streamline transfer of appropriate information relative to children/youth in mental health system of care at the local level.

**Project Scope and Project Work Plan Summary:** Within the constraints of federal and state regulations, CCMH/TCCY/DMHDD and DOE will collaborate to

- Identify initial and subsequent data elements of policy information in the mental health system of care that may contribute to a more holistic view of students who are provided wrap around services and children/youth enrolled in system of care who are in transition to adult services.
- Identify data elements that permit records to be matched in a master person index with proper security systems in place to assure de-identified or encrypted data in a Master Person Index.

**Project Risks**

- Agreements may be difficult to achieve because of competing confidentiality regulations or federal regulations limiting information sharing.
- All parties to developing agreements may not have a shared vision of the value of working toward achieving a more informed SLDS on behalf of students and youth entering the workforce.
- Other obligations may assume a higher priority within CCMH/TCCY/DMHDD which could limit resources dedicated to the project.

#### **Project Assumptions/Dependencies**

- The data sharing agreement between CCMH/TCCY/DMHDD and DOE does not extend to data sharing with other departments contributing data to the LDS.
- Gaining agreements between CCMH/TCCY/DMHDD and DOE will consume a significant amount of time.
- The new administration elected in November 2010 and installed in January 2011 will support the project.

#### **Project Budget Summary**

- The projected costs to CCMH/TCCY/DMHDD to participate in the LDS will be funded by the federal grant.
- CCMH/TCCY/DMHDD will contribute staff time and information to fulfill elements of the project charter to the extent allowable.

# Budget Narrative

## Budget Narrative - Budget Justification

Attachment 1:

Title: **Budget Narrative** Pages: **10** Uploaded File: **C:\Documents and Settings\CA18071\Desktop\U\BUDGET NARRATIVE.pdf**

## 7. Budget Narrative and Justification

### 7(a) Budget Narrative by Year

#### 7(a)(i) Outcome Goals – Year 1

System Architecture Products and Features – Much of Year 1 will be directed toward this outcome. The security plans will be planned and documented. Hardware will be determined and much of it purchased and implemented. The functional requirements for TLDS will be defined to a greater level of detail. Data taxonomies and structures will be planned and databases will be developed for existing data sources. Evaluation needs will be documented and some tools or techniques researched. Audit features will be discussed and a preliminary plan will be documented. Data integrity issues will be discussed for known data sources and options for verifying data integrity will be developed.

Data Integration Products and Features – Potential data sources will be developed and considered for inclusion in the TLDS design. Some “phase 1” effort will be started in the first year with most of the effort directed at existing LDS data sources from within the DOE, CBER and SAS sources. Types and categories of data to be included will be documented along with source options. A temporary unique identifier will be determined and used with early database implementations.

Reporting and Research – Existing reporting and research capabilities from CBER and SAS will be evaluated to determine their applicability to P-20 types of reporting and research options. Requirements for future P-20 reporting and research options will be developed and potential tools listed that can help deliver the services and features required for reporting and research.

#### Budget by Object Class – Year 1

Object Class	Year 1	Justification	Comments/Issues
Personnel	\$1,111,250	DOE Project Director – 1 FTE DOE Oracle Expert – 2 FTE, DOE Research Analyst – 2 FTE, DOE Admin Support – 1 FTE, GOCC Policy Analyst – 1 FTE, CBER Project Director – 1 FTE, CBER Architecture Manager – 1 FTE, CBER Database Manager – 1 FTE, CBER Faculty – 1 FTE CBER Staff – 1 FTE College of Business Staff – 1 FTE OIT Staff – 1.5 FTE	Salary estimate averages are: DOE PD - \$100k, DOE Oracle - \$75k DOE RA - \$55k, GOCC PA - \$100k, CBER PD - \$150k, CBER AM – \$125k, CBER DBM – \$90k, CBER Fac. - \$100k, CBER staff - \$75k, COB Staff – 75,000, OIT staff - \$80,000

Fringe Benefits	\$385,675	Based on 50% benefits for DOE and GOCCC and 28% for benefits for UT	
Travel	\$46,000	Based on 2 trips per month at \$250 per trip between Knoxville and Nashville plus 8 training trips at \$5000 each	
Equipment	\$450,000	Eight servers, about 100TB storage, 2 firewalls, and 50 tapes at UT 4 servers and 100GB storage at State	Both development and production
Contractual	\$2,430,000	Subcontractor (8 FTE for 6 months), SRE license, Oracle support, and SAS support for TVAAS for six months	Subcontractor at \$125 per hour, SRE estimated at \$530k, Oracle estimated at \$525k, SAS - \$750k per year
Other	\$756,744	Agency Support, 8% F&A for CBER plus a third of MPI development project	Agency Support - \$75k
TOTAL	\$5,179,669		

#### Budget by Outcome – Year 1

Outcome	Year 1	Justification
System Architecture Product and Features	\$1,855,101	Hardware plus 30% of personnel, benefits, contractual and other
Data Integration Products and Features	\$1,653,468	40% of personnel, benefits, and other, 50% of travel, and 30% of contractual
Research and Reporting	\$1,671,101	30% of personnel, benefits, and other, 50% of travel, and 40% of contractual
TOTAL	\$5,179,669	

#### 7(a)(iii) Outcome Goals – Year 2

System Architecture Products and Features – Security plans will be implemented and evaluated. Adjustments will be made as needed, but the process to get access approvals will be set and followed. Hardware will be planned and acquired for agencies as needed. The functional requirements for TLDS will be reviewed and refined as new requirements are discovered. Data taxonomies and structures will be verified and databases will be developed for new agency data sources. Evaluation needs will be implemented and feedback started. Audit features will be finalized and implemented. Data integrity processes will be followed will be refined for each data source.

Data Integration Products and Features – The Master Person Index (MPI) feature will be developed and implemented. Existing databases will be retrofitted with the MPI. Data sources will continue to be developed and considered for inclusion in the TLDS design. Integration processes for “phase 1” data sources will be completed. Attention will be given to “phase 2 & 3” data sources depending on the respective agency’s ability to participate.

Reporting and Research – Additional plans for reporting and research will be implemented to support the extended needs for P-20 deliverables. The Business Intelligence interface will be implemented to support expanded reporting and research requirements. A web portal will provide access needed for DOE defined data needs, other agency defined data needs, and public data needs. A solution for research support will be developed and made available as authorized. Some standard research reports and policy analyses will be made available to approved people.

#### Budget by Object Class – Year 2

Object Class	Year 2	Justification	Comments/Issues
Personnel	\$1,236,000	DOE Project Director – 1 FTE DOE Oracle Expert – 2 FTE, DOE Research Analyst – 2 FTE, DOE Admin Support – 1 FTE, GOCC Policy Analyst – 1 FTE, CBER Project Director – 1 FTE, CBER Architecture Manager – 1 FTE, CBER Database Manager – 1 FTE, CBER Faculty – 1 FTE CBER Staff – 1 FTE College of Business Staff – 1 FTE OIT Staff – 1. FTE	
Fringe Benefits	\$460,513	Based on 50% benefits for DOE and GOCC and 28% for benefits for UT	
Travel	\$56,000	Based on 2 trips per month at \$250 per trip between Knoxville and Nashville plus 10 training trips at \$5000 each	
Equipment	\$100,000	4 servers and 100 GB storage at state	
Contractual	\$4,650,000	Subcontractor - 10 FTE, Documentation and Training – 3 FTE (for six months), SRE license, Oracle support, and SAS support for TVAAS	Documentation and Training - \$75 per hour
Other	\$749,743	8% F&A for CBER plus a third of MPI development project	
TOTAL	\$7,252,256		

### Budget by Outcome – Year 2

Outcome	Year 2	Justification
System Architecture Product and Features	\$809,626	Hardware plus 10% of personnel, benefits, contractual, and other
Data Integration Products and Features	\$3,576,128	50% of personnel, benefits, travel, contractual, and other
Research and Reporting	\$2,866,502	40% of personnel, benefits, contractual, and other plus 50% of travel
TOTAL	\$7,252,256	

### 7(a)(v) Outcome Goals – Year 3

System Architecture Products and Features – System architecture products and features will continue to be reviewed and improved as needed including security processes. Hardware will be planned and acquired for new agencies as needed. Data taxonomies and structures will be applied to the new agency data sources. Evaluation and audit efforts will be review and the process refined as needed. Data integrity processes will be followed will be refined for each data source.

Data Integration Products and Features – The Master Person Index (MPI) feature will be reviewed and refined as needed to support existing and new data sources. Data sources will continue to be developed and considered for inclusion in the TLDS design as new agencies join the project.

Reporting and Research – Reporting and Research options will continue to be reviewed and improved. New options will be added. The Business Intelligence interface will be expanded to incorporate new features. The web portal will also be enhanced to improve access as needed for DOE defined data needs, other agency defined data needs, and public data needs. The solution for research support will be reviewed and enhanced as new requirements are formed. Standard research reports and policy analysis will be expanded as new features are added.

### Budget by Object Class – Year 3

Object Class	Year 3	Justification	Comments/Issues
Personnel	\$1,273,080	DOE Project Director – 1 FTE DOE Oracle Expert – 2 FTE, DOE Research Analyst – 2 FTE, DOE Admin Support – 1 FTE, GOCC Policy Analyst – 1 FTE,	

		CBER Project Director – 1 FTE, CBER Architecture Manager – 1 FTE, CBER Database Manager – 1 FTE, CBER Faculty – 1 FTE CBER Staff – 1 FTE College of Business Staff – 1 FTE OIT Staff – 1 FTE	
Fringe Benefits	\$474,328	Based on 50% benefits for DOE and GOCC and 28% for benefits for UT	
Travel	\$56,000	Based on 2 trips per month at \$250 per trip between Knoxville and Nashville plus 10 training trips at \$5000 each	
Equipment	\$100,000	4 servers and 100 GB storage at state	
Contractual	\$4,525,000	Subcontractor - 10 FTE, Documentation and Training – 3 FTE, SRE license, Oracle support, and SAS support for TVAAS	
Other	\$752,342	8% F&A for CBER plus a third of MPI development project	
TOTAL	\$7,180,750		

#### Budget by Outcome – Year 3

Outcome	Year 3	Justification
System Architecture Product and Features	\$451,238	Hardware plus 5% of personnel, benefits, contractual, and other
Data Integration Products and Features	\$2,837,900	40% of personnel, benefits, contractual, and other plus 50% of travel
Research and Reporting	\$3,891,613	55% of personnel, benefits, contractual, and other plus 50% of travel
TOTAL	\$7,180,750	

#### 7(b) Budget Narrative by Contract and Year

##### 7(b)(i) Projected CBER/UT Contract Costs by Object Class and Year

The College of Business Economic Research (CBER) group is a well respected set of faculty and staff from the University of Tennessee that has experience with research with the Department of Education and others. CBER has some existing research databases that can be leveraged to get a quick start on P-20 outcomes and have the ability to expand their role to meet the needs of P-20.

CBER has research expertise and some technical expertise that will assist the project during start-up, but additional expertise will need to be brought into the project. Additional database experts will be needed to design new databases and to review and prepare data to be loaded into the databases. Business Intelligence expertise will be needed to design and build the various access paths and tools to use the data effectively.

CBER will coordinate the P-20 project in concert with the Tennessee state Department of Education. CBER will establish a set of databases that will collect data from the state agencies and develop protocols to allow access to the data for research and related purposes. CBER will accomplish this effort in conjunction with the Tennessee state Department of Education and other state agencies through CBER resources, other University of Tennessee resources, and other contract resources.

#### CBER Budget – Year 1

Object Class	Year 1	Justification	Comments/Issues
Personnel	\$772,500	CBER Project Director – 1 FTE, CBER Architecture Manager – 1 FTE, CBER Database Manager – 1 FTE, CBER Faculty – 1 FTE CBER Staff – 1 FTE College of Business Staff – 1 FTE OIT Staff – 1.5 FTE	Salary estimate averages are: CBER PD - \$150k, CBER AM – \$125k, CBER DBM – \$90k, CBER Fac. - \$100k, CBER staff - \$75k, COB Staff – \$75k, OIT staff - \$80k
Fringe Benefits	\$216,300	Based on an estimated average of 28% for benefits	
Travel	\$33,000	Based on 1trip per month at \$250 per trip between Knoxville and Nashville plus 6 training trips at \$5000 each	
Equipment	\$350,000	Eight servers, about 100TB storage, 2 firewalls, and 50 tapes at UT	
Other	\$81,744	8% F&A for CBER	
TOTAL	\$1,453,544		

#### CBER Budget – Year 2

Object Class	Year 2	Justification	Comments/Issues
Personnel	\$715,850	CBER Project Director – 1 FTE, CBER Architecture Manager – 1 FTE, CBER Database Manager – 1 FTE, CBER Faculty – 1 FTE	

		CBER Staff – 1 FTE College of Business Staff – 1 FTE OIT Staff – 1 FTE	
Fringe Benefits	\$200,438		
Travel	\$18,000	Based on 1 trip per month at \$250 per trip between Knoxville and Nashville plus 3 training trips at \$5000 each	
Equipment			
Other	\$74,743	8% F&A for CBER	
TOTAL	\$1,009,031		

### CBER Budget – Year 3

Object Class	Year 3	Justification	Comments/Issues
Personnel	\$737,326	CBER Project Director – 1 FTE, CBER Architecture Manager – 1 FTE, CBER Database Manager – 1 FTE, CBER Faculty – 1 FTE CBER Staff – 1 FTE College of Business Staff – 1 FTE OIT Staff – 1 FTE	
Fringe Benefits	\$206,451		
Travel	\$23,000	Based on 1 trip per month at \$250 per trip between Knoxville and Nashville plus 4 training trips at \$5000 each	
Equipment			
Other	\$77,342	8% F&A for CBER	
TOTAL	\$1,044,119		

### 7(b)(ii) Projected Data Architecture Subcontractor Costs by Object Class and Year

CBER will contract with one or more technical services organization to provide database and security expertise including data analysis and acquisition, database design, database implementation, and data access protocols in a secure manner at the direction of the CBER technical director. The subcontracting personnel will work with CBER staff, other university staff, and state agency staff as needed to accomplish their objectives.

### Data Architect Budget – Year 1

Object Class	Year 1	Justification	Comments/Issues
Personnel	\$875,000	Database and Security Contractor – 7 FTE for 6 months	Salary estimate averages are: Database Contractor - \$125 per hour
Fringe Benefits			
Travel			
Equipment			
Other			
TOTAL	\$875,000		

### Data Architect Budget – Year 2

Object Class	Year 2	Justification	Comments/Issues
Personnel	\$2,000,000	Database and Security Contractor – 8 FTE	
Fringe Benefits			
Travel			
Equipment			
Other			
TOTAL	\$2,000,000		

### Data Architect Budget – Year 3

Object Class	Year 3	Justification	Comments/Issues
Personnel	\$2,000,000	Database and Security Contractor – 8 FTE	
Fringe Benefits			
Travel			
Equipment			
Other			
TOTAL	\$2,000,000		

### 7(b)(iii) Projected Business Intelligence Subcontractor Costs by Object Class and Year

CBER will contract with one or more technical services organization to provide Business Intelligence (BI) expertise including secure data access to P-20 data and data analysis assistance protocols at the direction of the CBER technical director. The subcontracting personnel will

work with CBER staff, other university staff, and state agency staff as needed to accomplish their objectives.

#### Business Intelligence Budget – Year 1

Object Class	Year 1	Justification	Comments/Issues
Personnel	\$325,000	BI Software Expert – 1FTE for six months BI Contractor – 1 FTE for six months	Salary estimate averages are: BI Software Expert - \$200 per hour BI Contractor - \$125 per hour
Fringe Benefits			
Travel			
Equipment			
Other	\$150,000	Software Licenses – six months	
TOTAL	\$625,000		

#### Business Intelligence Budget – Year 2

Object Class	Year 2	Justification	Comments/Issues
Personnel	\$700,000	BI Software Expert – 1 FTE BI Contractor – 2 FTE	
Fringe Benefits			
Travel			
Equipment			
Other	\$300,000	Software Licenses	
TOTAL	\$1,000,000		

#### Business Intelligence Budget – Year 3

Object Class	Year 3	Justification	Comments/Issues
Personnel	\$700,000	BI Software Expert – 1 FTE BI Contractor – 2 FTE	
Fringe Benefits			
Travel			
Equipment			
Other	\$300,000	Software Licenses	
TOTAL	\$1,000,000		



# Budget Narrative

## Budget Narrative - ED 524 Section C Spreadsheet