

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 # R384A100037**

Closing Date: NOV 19, 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.).

Application for Federal Assistance SF-424

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 | |

| | |
|--------------------------------|---------------------------------|
| 5a. Federal Entity Identifier: | * 5b. Federal Award Identifier: |
| | 84-384A2009 |

State Use Only:

| | |
|----------------------------|----------------------------------|
| 6. Date Received by State: | 7. State Application Identifier: |
| | |

8. APPLICANT INFORMATION:

* a. Legal Name: Virginia Department of Education

| | |
|---|---------------------------|
| * b. Employer/Taxpayer Identification Number (EIN/TIN): | * c. Organizational DUNS: |
| 546001771 | 809740129 |

d. Address:

| | |
|----------------------|--------------------|
| * Street1: | 101 N. 14th Street |
| Street2: | |
| * City: | Richmond |
| County: | |
| State: | VA |
| Province: | |
| * Country: | USA |
| * Zip / Postal Code: | 23219 |

e. Organizational Unit:

| | |
|--|---|
| Department Name: | Division Name: |
| Office of Educational Information Management | Division of Technology and Career Education |

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

| | | | |
|--------------|------|---------------|---------|
| Prefix: | Mrs. | * First Name: | Bethann |
| Middle Name: | H | | |

* Last Name: Canada

Suffix:

Title: Director of Educational Information Management

Organizational Affiliation:

* Telephone Number: (804)225-2951 Fax Number: (804)786-0101

* Email: BETHANN.CANADA@DOE.VIRGINIA.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:**

ED-GRANTS-072909-001

Title:

Statewide Longitudinal Data System Recovery Act Grants

13. Competition Identification Number:

84-384A2009

Title:

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

Virginia school divisions.

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

Longitudinal Data System Expansion - linking to Workforce and Postsecondary

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: all

* b. Program/Project: all

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

Attachment:

Title :

File :

17. Proposed Project:

* a. Start Date: 4/1/2010

* b. End Date: 9/30/2013

18. Estimated Funding (\$):

| | |
|----------------------|-------------|
| a. Federal | \$ 17692564 |
| b. Applicant | \$ |
| c. State | \$ |
| d. Local | \$ |
| e. Other | \$ |
| f. Program Income | \$ |
| g. TOTAL | \$ 17692564 |

*** 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: Mrs. * First Name: Bethann
Middle Name: H
* Last Name: Canada
Suffix:

Title: Director of Educational Information Management

* Telephone Number: (804)225-2951 Fax Number: (804)786-0101

* Email: BETHANN.CANADA@DOE.VIRGINIA.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:
Virginia Department of Education

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

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

| Budget Categories | Project Year 1(a) | Project Year 2 (b) | Project Year 3 (c) | Project Year 4 (d) | Project Year 5 (e) | Total (f) |
|-----------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|---------------|
| 1. Personnel | \$ 576,666 | \$ 588,199 | \$ 599,963 | \$ 0 | \$ 0 | \$ 1,764,828 |
| 2. Fringe Benefits | \$ 197,645 | \$ 201,275 | \$ 205,460 | \$ 0 | \$ 0 | \$ 604,380 |
| 3. Travel | \$ 67,000 | \$ 62,000 | \$ 2,000 | \$ 0 | \$ 0 | \$ 131,000 |
| 4. Equipment | \$ 122,992 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 122,992 |
| 5. Supplies | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| 6. Contractual | \$ 4,518,420 | \$ 6,234,801 | \$ 2,098,942 | \$ 0 | \$ 0 | \$ 12,852,163 |
| 7. Construction | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| 8. Other | \$ 2,000,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 2,000,000 |
| 9. Total Direct Costs (lines 1-8) | \$ 7,482,723 | \$ 7,086,275 | \$ 2,906,365 | \$ 0 | \$ 0 | \$ 17,475,363 |
| 10. Indirect Costs* | \$ 79,844 | \$ 70,502 | \$ 66,855 | \$ 0 | \$ 0 | \$ 217,201 |
| 11. Training Stipends | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| 12. Total Costs (lines 9-11) | \$ 7,562,567 | \$ 7,156,777 | \$ 2,973,220 | \$ 0 | \$ 0 | \$ 17,692,564 |

***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: 7/1/2009 To: 6/30/2010 (mm/dd/yyyy)

Approving Federal agency: ED Other (please specify): _____ The Indirect Cost Rate is 8.28%

(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:
 Virginia Department of Education

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

SECTION B - BUDGET SUMMARY
NON-FEDERAL FUNDS

| Budget Categories | Project Year 1(a) | Project Year 2 (b) | Project Year 3 (c) | Project Year 4 (d) | Project Year 5 (e) | Total (f) |
|--------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| 1. Personnel | \$ 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: Bethann H. Canada

Title: Director of Educational Information Mgt

Date Submitted: 11/20/2009

Disclosure of Lobbying Activities

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

| | | |
|---|--|--|
| 1. Type of Federal Action: <input type="checkbox"/> Contract <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Loan <input type="checkbox"/> Loan Guarantee <input type="checkbox"/> Loan Insurance | 2. Status of Federal Action: <input checked="" type="checkbox"/> Bid/Offer/Application <input type="checkbox"/> Initial Award <input type="checkbox"/> Post-Award | 3. Report Type: <input checked="" type="checkbox"/> Initial Filing <input type="checkbox"/> Material Change For Material Change only: Year: 0 Quarter: 0 Date of Last Report: |
| 4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier, if known: 0 Name: Virginia Department of Education Address: PO Box 2120 City: Richmond State: VA Zip Code + 4: 23218- | 5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Name: Address: City: State: Zip Code + 4: - Congressional District, if known: | |
| 6. Federal Department/Agency: US Department of Education | 7. Federal Program Name/Description: National Center for Education Statistics CFDA Number, if applicable: 84.384A | |
| 8. Federal Action Number, if known: 84-384A2009 | 9. Award Amount, if known: \$0 | |
| 10. a. Name of Lobbying Registrant (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: - | b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: - | |
| 11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when 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: Bethann H. Canada Title: Director of Educational Information Mgt Applicant: Virginia Department of Education Date: 12/03/2009 | |
| Federal Use Only: | | 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

Virginia Department of Education

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: First Name: Bethann Middle Name: H

Last Name: Canada Suffix:

Title: Director of Educational Information Mgt

Signature: _____

Date:

11/20/2009

ED 80-0013

03/04

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

1. Project Director:

| | | | | |
|---------|---------------|--------------|--------------|---------|
| Prefix: | * First Name: | Middle Name: | * Last Name: | Suffix: |
| Mrs. | Bethann | H | Canada | |

Address:

* Street1: 101 N. 14th Street
 Street2:
 * City: Richmond
 County:
 * State: VA * Zip / Postal Code: 23219 * Country: USA

| | |
|---------------------------------|-----------------------------|
| * Phone Number (give area code) | Fax Number (give area code) |
| (804)225-2951 | (804)786-0101 |

Email Address:

BETHANN.CANADA@DOE.VIRGINIA.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?

Yes Provide Exemption(s) #: 1,5

No Provide Assurance #, if available:

Please attach an explanation Narrative:

Attachment:

Title : Exempt Research Narrative
 File : E:\DraftDocuments\Exempt Research Narrative.doc



Exempt Research Narrative

VDOE is proposing to conduct research studies involving human subjects: a study that will provide estimates of individual teacher impact in the classroom, a study of students' postsecondary outcomes, and a study of individual students' state assessment results in an effort to measure student growth from year to year. Both studies will involve using individual student assessment results.

These research activities are covered by exemptions number 1 and 5. The research involves normal educational processes – the testing of students; and is designed to evaluate educational programs.

Project Narrative

Project Narrative - Project Abstract

Attachment 1:

Title: **Virginia LDS Grant Project Abstract** Pages: **1** Uploaded File:

F:\AllTheARRADocuments\FinalProducts\VirginiaLDSProjectAbstract.pdf

Virginia's Longitudinal Data Systems Enhancement Project

The Virginia Department of Education (VDOE) —in partnership with the Office of the Governor, the State Council of Higher Education (SCHEV), the Virginia Community College System, the Virginia Information Technologies Agency, and Virginia's workforce agencies—proposes to expand on the advancements we have made through our current Statewide Longitudinal Data Systems (SLDS) grant. VDOE, SCHEV, and several workforce agencies have completed the work needed to meet two of the seven data system capabilities and eight of the 12 data system elements required by the America COMPETES Act, and we have partially met another four capabilities and two elements. In order to establish a comprehensive, longitudinal P-20 data system, we propose to:

- **Create an integrated K-12 student-teacher information system that matches individual teachers to students.** We will accomplish this by developing and validating course enrollment/completion and teacher/principal evaluation data collections, upgrading the existing teacher licensure system, and developing a needs-based competitive grant program for local school divisions to support their efforts towards system integration.
- **Create a longitudinal data linking and reporting system with the ability to link data among state agency data sources, including K-12, higher education, and workforce systems.** Using a federated system to merge data across agencies, we will: develop a rubric to document data element definitions, data requirements, and technical requirements for de-identified data sets that can be linked among agencies; build a central linking directory based on data sharing agreements in place or established as part of the grant project; and establish a query process for authorized user access that uses the linking directory to anonymously join individual-level records from multiple data sources.
- **Develop a web-based portal to provide one-stop access to education and workforce data by policymakers, educators, the public, program directors, researchers, etc.** To increase the accessibility of existing data, we propose a portal with different levels of access for publicly-available data and reports, as well as access to non-public data for authorized users.
- **Design a data management and control system that enables us to maximize data quality, ensure accessibility with appropriate security, and enhance the usefulness of the data in both existing and proposed systems.** We plan to develop and implement comprehensive cross-agency data sharing policies and practices and standards for data exchange, as well as data security measures that maintain privacy of personally identifiable information, and clear protocols for role-based data access at all levels. We also intend to enhance existing data audit systems to improve data quality, validity, and reliability.
- **Develop a mechanism for postsecondary institutions to receive transcript data.** We propose to develop a secure mechanism to permit postsecondary institutions to receive high school transcript data electronically, and are proposing to use grant funds to carry out a pilot project with VCCS and selected four-year institutions for electronic transfer of transcript data to them, and for integration of those data into existing systems.

For each outcome, we plan to develop and implement customized live and electronic training tools to meet a variety of user needs. Completion of the proposed project will propel Virginia's data collection, reporting, and analytic capabilities far beyond current levels, and will result in a statewide longitudinal data system that will be fully able to meet all the required data system capabilities and data elements.

Project Narrative

Project Narrative - Project Narrative

Attachment 1:

Title: **Virginia LDS Narrative** Pages: **31** Uploaded File:

G:\AllTheARRADocuments\FinalProducts\VirginiaLDSNarrative.pdf

Table of Contents

| | | |
|------------|--|-----------|
| (a) | Need for Project | 1 |
| | Current status of the State’s statewide, longitudinal data system..... | 1 |
| | Using data to support educational goals in Virginia | 3 |
| | Publicly available data | 5 |
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(a) NEED FOR PROJECT

Virginia began establishing a statewide longitudinal data system in 2002. Since that time, the system has evolved significantly to enable the Commonwealth to meet state and federal reporting requirements while providing significant data and information to educators throughout the Commonwealth and to the public. In the 21st century and beyond, we must increase our citizens' education and training levels to support their quality of life and economic stability. To accomplish this, it is critical that policymakers, program directors, educators, researchers, and citizens have access to high-quality information to make informed decisions as they direct and navigate the education and workforce training system. Such information can only come from state-of-the-art data and reporting systems. This request for funding was developed through a partnership among the Governor's office and Virginia's education, workforce, and information technology agencies, to propel Virginia's data collection, reporting, and analytic capabilities far beyond current capacities.

Current status of the State's statewide, longitudinal data system

Virginia established its statewide longitudinal data system in part to meet the data collection and reporting requirements of the Elementary and Secondary Education Act (ESEA). As the data collection tools were being established, state leaders recognized the critical role the state should play to ensure that all of our school systems—including those in small, rural, economically depressed communities, and others that have not invested in local data warehouses—had secure access to current and historical student level data in ways that would directly impact instruction at the local level. Virginia's solution to meeting this need is the Educational Information Management System (EIMS) managed by the Virginia Department of Education (VDOE). The EIMS system leverages the data collected for reporting requirements to provide rich decision support tools to Virginia school division¹ personnel.

Appendix C shows the status of Virginia's data systems as they relate to the required capabilities and key elements defined in the request for applications (RFA). A review of Appendix C shows that VDOE, the State Council of Higher Education for Virginia (SCHEV), and several workforce agencies have completed the work needed to meet two of the seven required capabilities and eight of the 12 required elements. We have partially met another four capabilities and two elements; and continue to have two unmet data system elements—student-level transcript information and other information determined necessary to address alignment and adequate preparation for success in postsecondary education. Even with significant progress, Virginia has the following limitations with respect to our longitudinal data system:

- Student course enrollment data in K-12 is limited to course enrollment for students in grades 6-12 in mathematics and science; VDOE does not currently collect course outcomes;
- K-12 teacher data are collected individually and are linked to schools and the names of courses they teach (i.e., their work assignments). Teacher data cannot be connected to individual students.
- There is no electronic means to link teacher course assignments to their preparation programs. As well, there are known data quality issues in the system that must be addressed to improve our ability to use the data for high quality research.²
- VDOE's lack of a statewide link between students and teachers hampers our ability to

¹ In Virginia, the term "division" is synonymous with the term "district" used by other states.

² There are no known data quality issues for data elements required for federal reporting.

provide historical data on teacher impact in the classroom. Currently, school leaders have the option of including a unique teacher identifier on the student's assessment record and an effort under the current LDS grant will optionally provide teacher access to historical data on current students only. School divisions that choose these options can access historical assessment data by teacher.

- There is no systematic or automated approach to de-identifying data for analytic use in the education and workforce agencies;
- While required on the high school transcript, the K-12 unique identifier must be manually entered into postsecondary data systems, resulting in poor data quality when data between the state agencies are required for merge;
- Virginia's P-20 data systems span several state agencies, and there is no automated system for secure linking of student-level information across agencies;³
- Not all reports and data are available from a single, user-friendly web portal, and reports that can be made available to the public must be created in an ad-hoc manner by agency staff—an inefficient, labor-intensive process that can largely be automated;
- The development of cross-agency data sharing policies and practices is in its early stages—the “initial” level on the Capability Maturity Model⁴—and no training programs are available for agency or local school personnel on appropriate cross-agency data sharing practices; and
- Agencies responsible for workforce development have significant challenges meeting their accountability requirements due to inconsistent data definitions between agencies and inefficient processes available to link and analyze data.

Despite these significant limitations, Virginia has accomplishments that demonstrate our commitment to continuously enhancing the data system and to appropriate use of prior longitudinal data system grant funds. These include:

- Institutionalizing the assignment of a unique identifier to each student;
- Integrating multiple reporting requirements into a single state student record collection; and
- Establishing and continuously enhancing the warehouse making data accessible to authorized school division personnel.

The data warehouse, available to all school divisions, contains nine years of data from high stakes assessments required for state and federal accountability purposes within the K-12 public school system. Recognizing the significant limitations in local data capabilities for many of our school divisions, our goal is to provide to our schools the most reliable and comprehensive information available. The warehouse currently permits users to disaggregate overall assessment and sub-strand results by student and includes students' longitudinal assessment history.

Virginia's current Longitudinal Data Systems Expansion project, funded in 2007 at \$6.05 million and scheduled to be completed by the end of Federal fiscal year 2010, has:

- Established a standard electronic student record for transfer from school-to-school.
- Adopted a standard electronic transcript for high schools to use electronic systems to

³ The development of a system to link early care and education to the K-12 system is in process with funding from the US Department of Health and Human Services.

⁴ Paulk, Mark C., Weber, C.V., Curtis, B., Chrissis, M.B. (1994). The Capability Maturity Model: Guidelines for Improving the Software Process. New York: Addison-Wesley Professional.

- automatically generate and send paper, pdf, and electronic transcripts to higher education.
- Provided additional data types and reports in the data warehouse, including:
 - The Preliminary Scholastic Aptitude Test (PSAT)
 - The ACT tests
 - The Scholastic Aptitude Test (SAT)
 - Pre-literacy screenings
 - Advanced Placement (AP) Tests
 - Postsecondary enrollment and completion information
- Supported school divisions in addressing data quality issues through comprehensive training to enhance awareness of the need for quality data and accountability for quality data.
- Developed a “watch list” report that enables K-12 educators to identify students at risk of not succeeding in school using indicators such as attendance, performance in reading and math, age, and retention.
- Developed the capability for school divisions to optionally upload schedules that will allow teachers access to data on current students (in progress).
- Engaged stakeholders and subject matter experts in statewide workshops that resulted in topical advisory papers on topics such as:
 - Workforce readiness
 - Data exchange best practices
 - Linking students to teachers
 - Academic and career plans

In enhancing the longitudinal data system, we have recognized the power of the Schools Interoperability Framework Association’s (SIFA) specification to improve data quality and reduce local administrative burden. SIF specifications define the rules for how software programs transmit data objects from one data system to another. Virginia has provided software, installation, and training to 120 of the Commonwealth’s 132 school divisions to help them adopt SIF-certified software and use it to reduce administrative burden. VDOE staff are active members of SIFA, serving on the Executive Board and the Student Record Exchange/e-Transcript Task Force. A Virginia school division employee serves on the elected Technical Board, and VDOE has purchased memberships in SIFA for all Virginia school divisions. State monies fund the software licensing for the Zone Integration Server and the Student Information System Agent—which together, permit data to be transferred seamlessly from one data system to another, and enables school divisions to obtain student identifiers for new and transferring students without human intervention. The success of this effort in Virginia has prompted 62 school divisions to expand their use of the SIF specification for local “horizontal” use, resulting in improved quality of local data and further reduced administrative burden. VDOE’s contract permits school divisions to use the server and agent for horizontal SIF-applications at no cost.

Using data to support educational goals in Virginia

The establishment of and enhancements to the longitudinal data system have played a key role in supporting policymakers’ ability to use data to inform state educational goals. Our accountability system is a woven blend of state and federal requirements that include:

- State school accreditation standards and public reporting (K-12);
- Federal accountability and reporting requirements, which cover the lifespan and several education and workforce agencies and many federally funded programs (e.g., the Elementary and Secondary Education Act, as amended; the State Fiscal Stabilization Fund (SFSF); the Perkins Act; the Individuals with Disabilities Act (IDEA); Workforce Investment Act; and Title IV of the Higher Education Act.
- State-established Institutional Performance Standards for state institutions of higher education as required by Virginia’s Higher Education Restructuring Act of 2005.

Virginia's two primary educational communities—K-12 and higher education—maintain separate longitudinal data systems through separate executive branch agencies. The data systems currently permit the state to calculate all of the required components of state accreditation and federal accountability and reporting requirements; many but not all of the proposed SFSF requirements, and many of the reporting mandates from the state and federal government.

Virginia's education improvement goals, which are directly aligned with the educational principles of the American Recovery and Reinvestment Act of 2009 (ARRA), include: eliminating the achievement gap and increasing the academic success of all students; assisting chronically low-performing schools in meeting state and federal accountability standards and supporting all schools to reach excellence goals; supporting efforts to help all children enter kindergarten with the skills they need for success; improving teacher effectiveness; increasing the college and career readiness of high school students; developing approaches to improve transitions among levels of education, promoting student success, and encouraging students to continue their education; developing strategies for data systems that provide information about students at all educational levels; and maximizing higher education access and affordability. Below we provide examples of how Virginia's longitudinal data system (LDS)—current and proposed—supports our work to meet these goals as aligned with the ARRA principles.

Making progress toward rigorous college- and career-ready standards and high-quality assessments that are valid and reliable for all students.

Virginia established a standards and assessment program in the mid-1990s with a commitment to continuous quality improvement. Our LDS permits Virginia's leaders to conduct research and analysis to inform this process. For example, in partnership with Virginia Tech, VDOE has studied the links between postsecondary enrollment and state assessment results, and we are currently assessing the associations between first-year college outcomes and state assessment data. The broad goal of these studies is to better understand the kind of preparation Virginia's students need to achieve postsecondary success—and then use this information to inform and support parents, educators, as they strive for educational excellence to maintain or enhance their quality of life. Moving forward, we plan to further connect college readiness to the state assessment program by conducting analyses of specific content standards that, when met, describe the type of work that students must achieve to be ready for postsecondary education.

Establishing pre-K to college and career data systems that track progress and foster continuous improvement.

The LDS has allowed Virginia to provide aggregate data and information to the public and policymakers, while the data warehouse provides confidential and sensitive data to authorized education personnel to help drive school improvement.

State officials rely on the data to provide policymakers and program directors the information they need for continuous improvement. Policymakers, including the Governor, General Assembly, Virginia Board of Education, and officials at VDOE, SCHEV, workforce development agencies, and institutions of higher education, including the Virginia Community College System (VCCS) rely on LDS data to inform their work. For example, VDOE creates an annual report that provides state lawmakers with performance indicators associated with 12 state

funded educational programs for at-risk students.⁵ Virginia also uses the longitudinal data system to complete portions of reports required by lawmakers, such as a 2007 study of high school dropout and graduation rates.⁶ While we have begun an analysis of the first cohort of students for which high school and postsecondary course outcomes will be linked, the current process is extremely labor intensive. Our proposed data linking and reporting tools will enable agency staff to invest more time in other critical needs across the P-20 education system.

VDOE's program offices work with VDOE's Office of Educational Information Management (OEIM) to develop technical applications that meet program-specific needs. For example, our Office of School Improvement has the capability to provide schools with information about students who have failed state-wide assessments for two or more years in a row; our gifted education specialist has devised a reporting tool to support school divisions' ability to reduce disproportionality in identification of gifted students; the VDOE office that administers Title I and several programs under ESEA uses the data to evaluate the impact of various education programs on student achievement; and VDOE's centralized participation in the EdFacts program has enhanced data quality and reduced the reporting burden on program offices.

The SCHEV Student Data Warehouse is used extensively for standard and ad hoc reporting on postsecondary education. For example, SCHEV reports on enrollment, retention, and degrees awarded; costs of college enrollment; financial aid; and the number and percent of students who participate in remedial coursework in Virginia's higher education system, including VCCS.

Publicly available data

A standard set of reports are publicly available on VDOE's website (<http://www.doe.virginia.gov/VDOE/Publications/>), including summary data for required and commonly requested information such as numbers of students enrolled, graduated, dropped out, and participating in special educational instructional services. Virginia also provides public access to an assessment outcomes tool, which enables users to specify the state assessment outcomes of interest (e.g., by state, division, school, grade level, content area, etc.). The data are disaggregated by student subgroups where permissible under privacy policies. Other summary data are available through a wide variety of links and web-based tools, such as school-, division- and state-level report cards; aggregate data on discipline, crime, and violence in Virginia's schools; on-time graduation rates for student cohorts; and special education performance reports. This information is often used to inform statewide and school division policy and program improvement, and provides researchers with access to information for school, division, and state-level analysis.

Due to technological and resource limitations, VDOE data available to the public via our web site are "siloeed." Data are available by type of dataset (graduation/completion, assessment, discipline, free-reduced eligibility, etc.), but are not accessible in a manner that easily allows them to be linked for further analysis. Under the current system, new data requests—even for publicly available data—typically require significant person-hours to complete due to dated systems and an overall lack of automated reporting capabilities. For example, a researcher interested in the pass rates on statewide assessments in schools with a population of students where 80 percent or more are eligible for free or reduced lunch would have to download several

⁵ see <http://sfc.state.va.us/pdf/Jt%20Sub%20Education/October%202022%202008/IIIa%20-%20Joint%20Subcommittee%20At-Risk%20Programs%20Funding%2010-22-08.pdf>

⁶ Available online: [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/SD162007/\\$file/SD16.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/SD162007/$file/SD16.pdf)

separate datasets and perform a manual match.

The modernized web-based portal and reporting tools we propose will make more data available to a broader audience, and streamline the ad-hoc reporting process. Upon completion of the proposed project, the majority of ad-hoc data requests will be completed by the user, who will develop custom reports without significant time investments from agency staff. VDOE and our technology development partners at Virginia Information Technologies Agency (VITA) Enterprise Applications Division (EAD) recently pilot-tested the feasibility of using the proposed data tool in tabular, graphic, and geographic information systems (GIS) formats. The pilot test results may be viewed at <https://test.veap.virginia.gov/DOEDemo/rdpage.aspx>.

Quite significantly, the data tools proposed in this application will provide authorized users in Virginia's education and workforce agencies with streamlined data merging and reporting tools. The tools will result in richer data reports and greater analytic capability than currently available—while reducing staff work. By merging de-identified data, we will be compliant with state and federal privacy laws, while meeting critical data reporting requirements and policy-development needs.

Secure and restricted use data availability

Virginia's K-12 data warehouse was developed with a more focused goal of providing data and information that informs instructional practices at the state, division, school and, optionally to the teacher levels. The data warehouse provides school divisions and schools with secure access to yearly and longitudinal data and information at the student or aggregate level depending on the users' interests. Users have a wide variety of reports to access, and have filter options to specifically review information from students with different characteristics or outcomes, including filters for student subgroups (e.g., race/ethnicity; gender; disability and English language learner status); performance levels on state assessments; and credential type for high school graduates and completers. The initial warehouse development focused on providing authorized users with access to state assessment outcomes. Currently, the warehouse includes nine years of assessment data at the student level, with the last five being longitudinal. As described earlier in this proposal, we have recently added several new indicators of college readiness, college enrollment, early literacy, high school assessments passed (i.e., verified credits) and an early warning indicator report.

Our schools regularly use the data warehouse to support instructional improvement, as evidenced by ongoing usage of the system—the longitudinal performance reports were accessed 2686 times by users in all 132 of our local school divisions in the 30 day period ending November 16, 2009. Continued requests for training and the regular feedback Virginia's EIMS users provide to the state also support continuous system improvement. Recently, one of our large school divisions requested that the VDOE provide technical assistance so it could evaluate certain aspects of its special education instructional program. As part of the work, VDOE provided a wide range of data from the VDOE LDS including staff counts, endorsements, and placement types; and student outcomes, demographics, and educational program placement. The data allowed the LEA to consider its staffing model in conjunction with student outcomes in comparison to the models used in other large school divisions in Virginia. As a result, VDOE staff are sharing the indicators with other school divisions to determine whether they would find it useful for VDOE to develop comparable indicator reports.

School division personnel are enthusiastic about the potential upgrades to the data warehouse, at least in part because nearly all updates are at their request. We recognize, however, that school

division personnel are concerned about the new data reporting burdens needed to meet federal requirements. To partially address this issue, we have requested funds for a need-based competitive grant award for school divisions in the proposal to help them develop efficiencies in data collection and reporting (e.g., expansion of SIF-compliant technology) and to enhance educators' successful transition to using the new data to support instruction. Our vision for the proposed school division grant program will have applicants propose data system efforts that support one or more of the four ARRA reform areas; for example, a division may propose to improve their human resources system to include teacher and principal evaluation data, to implement an instructional improvement system, or to offer professional development for teachers and principals on data for decision-making.

Making improvements in teacher effectiveness and in the equitable distribution of qualified teachers for all students

Virginia is committed to improving teacher effectiveness and in the equitable distribution of qualified teachers. The Commonwealth has adopted licensure requirements that offer potential teachers flexibility with regard to their route to licensure and endorsement, including a robust career-switcher program. The state provides funds to teachers who become nationally board certified and for mentoring, and incentive funds to increase the quality of Virginia's middle-school mathematics teachers. Our current LDS permits Virginia to meet federal reporting requirements for highly qualified teachers.

Nonetheless, the use of the LDS to support improved teacher effectiveness is one of the significant gaps we intend to fill with the proposed project. We have just begun the work required to maximize the potential of teacher data in a statewide LDS. For example, we have partnered with researchers at the University of Virginia to study the variables that impact teacher retention to develop an understanding of the characteristics of staff retention in schools. This work has helped us identify data quality issues and to identify as additional critical variables that we need to collect and validate to ensure we are maximizing the value of the data to improve educational decisions. Our proposal includes the development of a new data collection system that links students to course enrollment, course grades, and to the teachers providing instruction in each course. We also propose to develop measures of student growth and teacher impact that can be applied to the new data; so we can move beyond documenting the minimum expectation for our teachers to using teacher effectiveness data to support continuous improvement.

Providing intensive support and effective interventions for the lowest-performing schools

Virginia is committed to effective intervention in low-performing schools, and has a track record of success to build on. We define chronically low-performing schools as those schools that do not meet state accreditation requirements for three or more consecutive years. In the 2006-2007 school year, 58 Virginia schools were defined as chronically low performing; in the current year, we have only 11 chronically low-performing schools, despite increasing performance benchmarks. Based on federal ESEA accountability, we currently have six Title I schools sanctioned for five or more years in English and two schools sanctioned for five or more years in mathematics. The results are at least in part attributable to effective leadership from our state Board of Education, Superintendent of Public Instruction, and the VDOE Office of School Improvement (OSI); all of these groups rely on LDS data. For example, OSI has established a suite of data tools that support the State Board, Superintendent, and VDOE staff in understanding student outcomes available from the state, including assessment outcomes, graduation rates,

student retention/promotion, and teacher retention and turnover. The state Board requires data to support a variety of decisions they need to make regarding school accreditation status; and the schools and school divisions use the data available in EIMS to support their school improvement work.

Other data uses that support low-performing schools include several statewide longitudinal analyses that VDOE has conducted in recent years. In 2008, we conducted an historical analysis of dropouts in the 2007-2008 school year. The results have informed our development of the watch-list report in the data warehouse, and VDOE has presented the findings to educators throughout the Commonwealth and outside the state to demonstrate potential uses of the LDS. The analysis is continuing in 2009 with a greater emphasis on understanding how state assessment data relate to the probability that students will drop out of school.

Required data system capabilities and key elements to be developed or improved

Virginia has invested significant resources to meet the educational goals described above by providing a) quality standards; b) program requirements based on research findings; c) expert technical assistance; d) financial resources; and e) available data to support educational improvement. The additional LDS capabilities we propose will provide critical support to the state's efforts to meet these and other educational goals.

The Commonwealth plans to develop or enhance each of the **seven required capabilities of a statewide, longitudinal data system**, as described below.

- *Enhance the Commonwealth's ability to examine student progress and outcomes over time by linking individual-level student data from K-12 education, postsecondary education and the workforce system; and*
- *Enable the exchange of data among agencies and institutions within the State and between States to inform policy and practice.*

Linking K-12 and higher education systems

The proposed data system enhancements will provide information with more breadth and depth than is available today to policy makers, program directors, and localities to help drive funding decisions into high priority areas. For example, by linking high school performance indicators such as course enrollment, course grades, and end-of-course assessments to higher education enrollment and outcomes data, the state can improve the quality of guidance offered to students, parents, educators and leaders in terms of college readiness indicators; provide a more detailed definition of indicators associated with students who are prepared for college; and improve support to communities with strong high school achievement but low college-going rates.

Once completed, the proposed data merging and reporting tools will provide users with an efficient tool to access to disparate data sources currently available from separate sources within and across agencies . The new tools will also provide Virginia with an ongoing process to continuously validate and expand upon initial research and analytic findings in a cost-effective manner. Our proposed reporting system will give users access to a variety of output types including traditional spreadsheet and flat files, graphs and charts, and mapping capabilities.

Collaboration with workforce agencies

As encouraged in the RFA, we have established collaborations with workforce agencies in Virginia to design a system that meets the educational requirements and currently meets workforce needs for longitudinal data to evaluate workforce system performance. VDOE has already engaged stakeholders to obtain their input and advice on the topic of collecting and using

data to study workforce readiness.⁷ One recommendation was to ensure that employment indicators can be linked to student data. The Virginia Employment Commission (VEC) collaborated on this proposal and will provide employment outcomes and wage data through the proposed data linking tools. In addition to using these data to measure employment outcomes for authorized for educational programs, we are proposing to use these tools to support accountability and legislatively mandated evaluation requirements for a myriad of workforce development programs in Virginia. As part of the grant work, we propose to leverage the fixed costs required to build the tools to meet the requirements of the educational longitudinal data system to continue Virginia's work towards the development of integrated performance indicators for its workforce programs using available administrative data. We view this as a cost-effective approach to evaluate the impact of educational and training programs Virginia provides to adults to improve employment retention, wage gains, and attainment of postsecondary credentials. The proposed data linking tools are scalable—in the future they may be used to link data from other agencies such as health/social services—although we are not requesting funds to make these links in this proposal.

We have included funds need to begin applying recommendations made in a previous evaluation of workforce programs conducted in 2007 by the Upjohn Institute for Employment Research. The evaluation recommended the following to enrich and make the evaluation results more informative as envisioned by the state legislature: (1) add a benefit-cost indicator in order to compare program performance on a cost efficiency basis; (2) standardize several program definitions to ensure that outcome indicators meaningfully compare programs; and (3) identify research issues that are of paramount interest to policy makers over and above the performance indicators and determine the data needed to answer these issues. Much of the work required to automate reporting for workforce evaluation purposes must be completed in any case to build an automated system to meet federal educational program reporting and accountability requirements. As such, our work will be informative to the education, workforce, and training community for program accountability purposes, as well as workforce policy and resource allocation decisions, and is congruent with the purpose of the Institute for Education Sciences (IES) Statewide Longitudinal Data System (SLDS) Grant Program.

• *Linking student data with teachers primarily responsible for providing instruction.*

Teacher quality is critical to improve student learning. Research suggests that measuring teacher quality requires more information than is available from licensing systems—teacher credentials and years of experience have limited predictive power in determining teacher quality.⁸ Our proposed work to link student data to the teachers who provide classroom instruction is a first step in providing teachers, school administrators, policymakers, and researchers with critical information about the quality of teachers in Virginia's classrooms. We propose to build a data collection and reporting system to collect course enrollment and course outcomes by student and teacher. The data will be used to connect state assessment data and course enrollment and outcomes to all teachers. This work will enable VDOE to meet the SFSF requirement to link

⁷ CIT Connect (2009). Workforce readiness: Data governance/data element definition final report (A7). Paper prepared for the Virginia Department of Education, April 30, 2009.

⁸ Rivkin, S.G., Hanushek, E.A., & Kain, J.F., (2005). Teachers, Schools, and Academic Achievement. *Econometrica*, 73, 417-458; Kane, T.J., Rockoff, J.E., & Staiger, D.O. (2008). *Economics of Education Review*, 27, 615-631.

students to teachers as well as the requirement to capture student-level transcript information. We will work with researchers to develop a growth model and a valid method of estimating individual teacher impact on student achievement in reading and mathematics for students in grades three through eight. The data collection and reporting system will enable VDOE to provide teachers and other authorized school division personnel with access to student growth measures, teacher impact estimates, student course taking information, and other performance indicators.

We also plan to develop a training program to inform users of appropriate ways to make use of the estimates and available reports. Our training program will include live and electronic training tools to support a variety of user needs. We have already engaged our key stakeholders on this issue to learn about their needs and concerns, and will use the information gathered through our stakeholder engagement and research project⁹ to inform our proposed enhancements.

- *Enable the matching of teachers with information about their certification and teacher preparation programs*

Leveraging the proposed student-teacher data linking system, we plan to further connect these data to teachers' preparation programs. Currently, SCHEV collects individual records on postsecondary students in Virginia's teacher preparation programs including course-level enrollment, financial aid, and degree and certificates awards. VDOE issues teacher licenses and maintains the data documenting teacher's place of employment and work assignments. Noting that only 44 percent of Virginia's teachers earned their bachelor's degrees in Virginia, we are requesting funds to enhance VDOE's licensure system. We propose to collect data on teacher's route to licensure and endorsements (which may differ from their place of bachelor's degree) and to establish much needed edit checks in the system to enhance the data quality. SLDS grant funds will permit VDOE to capture transcript information from teachers applying for licensure, new endorsements, and recertification in Virginia. The combination of SCHEV's data, the new data collected with the proposed system enhancements, and our linking tools will provide the information needed to develop a web-based reporting system to inform teacher preparation programs across the country of the classroom outcomes of their recent graduates.

- *Enable data to be easily generated for continuous improvement and decision-making*

One major objective of Virginia's proposed LDS project is to create a comprehensive web-based portal that will allow a variety of audiences (e.g., policymakers, the public, and researchers) to access the wealth of publicly available data from the K-12, postsecondary education, and workforce agencies. The portal will provide pre-developed and publicly available reports created by VDOE, SCHEV, and other agencies. Users will also be able to develop custom reports by combining data from multiple publicly available datasets, and to request data products in multiple formats. We propose to gather stakeholder input and feedback on content and layouts for the portal, and on the content of new reports, to enhance their usability for parents, educators, administrators, policymakers, researchers and the public. We have incorporated into the proposal an incentive program to develop new and unique data tools to be available to the public.

- *Ensure the quality and integrity of data contained in the system*

Existing SCHEV and VDOE data systems use extensive edit and validity checks to ensure data

⁹ CIT Connect (2009). *Data Governance/Data element definition final report—second workshop (A9): Analysis of Linked Student-Teacher Data*. Submitted to the Virginia Department of Education, May 31, 2009.

integrity. As part of the project, we will enhance existing edit and validation checks and establish new models for all new data and reports that are collected, and to ensure cross-agency validity of the data. Further, the collection of new data on course enrollment will enable VDOE to more accurately report participation in statewide assessments. Our proposed data management and control system will enable the participating agencies to develop cross-agency rules for data sharing, common data definitions, and standards for data sharing, using existing de-jure and de-facto national data standards. Our standards-based approach improves data quality as well as comparability and enables the base system developed with this grant to be scalable to other agencies in Virginia as well as across state lines.

- *Enhance the Commonwealth's ability to meet reporting requirements of the U.S. Department of Education.*

The existing educational data systems enable Virginia to meet current federal and state reporting mandates. The proposed LDS enhancements will create efficiencies for some of our reporting requirements, and enable the Commonwealth to meet all reporting requirements of the SFSF.

*With respect to the **12 elements prescribed by the American Competes Act**, Virginia has completed (C) or has made progress (P) in addressing the following data system elements:*

- A unique statewide student identifier that does not permit a student to be individually identified by users of the system (except as allowed by Federal and State law) (C)
- Student-level enrollment, demographic, and program participation information (C)
- Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs (C)
- The capacity to communicate with higher education data systems (P)
- A State data audit system assessing data quality, validity, and reliability (P)¹⁰
- Yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965 (C)
- Information on students not tested, by grade and subject (C)
- Student-level college readiness test scores (C)
- 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 (P)

Within this proposal, we have requested funds to develop (D) or enhance (E) the following key data system elements for the statewide, longitudinal data system

- Student-level transcript data, including courses enrollment, completion, and grades. (D)
- A teacher identifier system for K-12 with the ability to match teachers to students (D)
- The capacity to communicate with higher education data systems (E)
- A State data audit system assessing data quality, validity, and reliability (E)
- 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 (E)
- Data that provide other information determined necessary to address alignment and adequate preparation for success in postsecondary education. (E)

¹⁰ Virginia has an established data audit process. Improvements and updates are instituted regularly, particularly when new data and reports are established.

Training or technical assistance needs to be addressed through the grant

There are a wide variety of training needs that will be addressed by this project. Our program will ensure full training and technical assistance are provided as new data and tools become available, and that the training programs can be sustained over time. For each outcome, system users and stakeholders will require ongoing training to ensure that data, information, and systems are used appropriately and in compliance with data security laws, regulations, and policies. We recognize that stakeholders vary widely depending on the outcome, and include teachers and administrators, researchers, public data users, advocacy groups, and state agency staff.

For each project outcome, we plan to develop both electronic training tools onsite training programs to support diverse audiences. For example, upon institutionalizing growth models and teacher impact estimates, we will develop a training and technical assistance program for teachers, principals, and other school leaders to ensure they have the information on the appropriate uses and limitations of the estimates. We will develop training modules as part of the data linking system to provide users with training in using the system to meet their needs. We plan to develop a tiered training program that will be available electronically, and provide training for users with different levels of interest and sophistication in using the tools. We also plan to develop institutional training programs for agency staff on how to access and use the secure data tools and the data security policies or practices that must be followed by system and data users. In addition to in-person and web-based training, we wish to explore additional tools such as the new *Virginia on iTunes U*¹¹ and podcasting.

Using the system to address the requirements of the State Fiscal Stabilization Fund

The proposed enhancements will enable Virginia to meet the following SFSF requirements:

1. Reporting on the systems used to evaluate teachers and principals.
2. For teachers and principals who receive performance ratings or levels through an evaluation system, reporting the number and percentage of teachers and principals rated at each performance rating or level.
3. For teachers of reading/language arts and mathematics in tested grades, growth data for current students and the students they taught in the previous year, and estimates of individual teacher impact on student achievement, in a manner that is timely and informs instruction. Our grant proposal includes funds to develop a data collection system that links students to teachers, which is necessary to meet this requirement. In addition, we have included funds for a research project to be conducted in collaboration with subject matter experts from university and non-profit research institutions to develop valid and reliable measures of growth on Virginia's statewide assessments and estimates of teacher impact. The proposal also includes funds to develop timely and meaningful reports that will be provided to teachers through a secure system, and funds to develop a sustainable training program for teachers, principals and other school leaders to appropriately use the estimates
4. Virginia is currently able to meet the SFSF requirement to report the number of high school graduates who enroll in two- and- four year colleges using data from the National Student Clearinghouse. The proposed longitudinal data linking and reporting tool will merge data between K-12 and higher education data systems and provide the information required to report the number of high school graduates who enroll in state institutions of higher education and complete at least one year's worth of college credit within two years.
5. Our proposal also requests resources to enhance Virginia's automated reporting capability to

¹¹ See <http://www.doe.virginia.gov/VDOE/NewHome/pressreleases/2009/apr7.html>

generate reports required under the SFSF and ESEA; support institutional response to key aspects of the Higher Education Opportunity Act; and create efficiencies in meeting state reporting requirements.

6. Virginia's accountability requirements for several other federal education programs, including ESEA, IDEA and Perkins, will also be fulfilled more efficiently through the use of the proposed data linking and reporting tools. For example, IDEA reporting requires states to report the percent of youth with individualized education plans (IEPs) who are no longer in secondary school and who have been competitively employed, enrolled in some type of post-secondary school, or both, within one year of leaving high school. Currently, Virginia's public school divisions conduct follow-up surveys of all students with IEPs who exit Virginia's high schools to meet the reporting requirements. The proposed tool that merges K-12, higher education, and employment data will provide Virginia with more reliable data and more efficient and cost-effective means to collect and report this information.

(b) PROJECT OUTCOMES RELATED TO SYSTEM REQUIREMENTS AND IMPLEMENTATION

Outcome 1: Create an integrated K-12 student-teacher information system

We propose to develop and validate a data collection system that matches individual teachers to students and includes student course enrollment and outcomes information within the K-12 system. This outcome also supports school divisions' data system efforts.

We will use this information to provide teachers with access to information about the academic outcomes of their students, including student growth on state assessments in reading and mathematics, course taking history and outcomes as required for the SFSF by September 30, 2011. We will also engage outside experts to develop valid methodology for measuring student growth and teacher impact on student achievement as measured by state assessments.

The proposed information system will also include reporting capabilities available to teachers and other authorized school division personnel to provide estimates of student growth and teacher impact on student performance on state assessments in reading and mathematics. VDOE will develop additional reports for use by authorized personnel in the existing data warehouse to inform decisions. The data to be collected for the student-teacher information system, combined with information already collected at the student level for the EIMS, will also be used to develop reports that provide comparison of end-of-course grades with performance on state assessments, and additional information on students not tested by grade and subject.

Another component of the proposed integrated student-teacher information system is an upgraded teacher certification system to enable VDOE to electronically capture information on the teachers' preparation programs. We will link this information to the proposed course completion data and a richer set of information available from teachers educated in Virginia's institutions of higher education via the longitudinal data linking and reporting system (see Outcome 2). This will enable us to provide teacher preparation programs (both within and outside of Virginia) with information on the classroom outcomes related to their completers and to school administrators to inform personnel practices.

To meet the SFSF reporting requirement, VDOE will build a data system that collects information on school divisions' teacher and principal evaluations, including the distribution of performance ratings of teachers for each school and of principals for each division. The resulting reports from the data collection will be available to the public via the VDOE web site.

We will also develop live and online training programs to support system and report users with

respect to access and appropriate use of the available data. We will involve representatives from stakeholder groups in developing the reports and training programs to better serve users' needs.

The proposed linked teacher-student data system will be comprised of four separate system development efforts: 1) Development of a course enrollment and completion data collection; 2) Development of a teacher/principal evaluation data collection; 3) Upgrade of the current teacher licensure system; and 4) a needs-based school division competitive grant award program.

Development of the Course Enrollment/Completion Data Collection

VDOE will work with school division advisors to develop a file specification that meets the requirements of the course enrollment data collection and is least burdensome for school divisions to report. Again, working with school divisions, VDOE will develop valid values, edits, and business rules to be applied to the data upload. Using SIF and NCES Handbook data standards where applicable, and the computing environment and programming tools described later in this section, we will develop a data collection application within our secure portal.

We plan to conduct the course enrollment/completion data collection at several time-points during the year: in the fall for first semester enrollment, in the spring for second semester enrollment, and at the end of the school year for course completion information. Using existing statewide course codes, at a minimum, the following information will be collected:

- Division and School identifying information
- Unique Student Identifier
- State Course Identifier
- Section Identifier
- Local Course Identifier and name (optional)
- Final Grade (end-of-year only)
- Teacher Identifier of the primary teacher
- Teacher Identifier of other teachers assisting the primary teacher (for use in team-teaching situations)

Including the unique student identifier in the data collection will enable us to link the course-taking information to existing student demographic, state assessment, program participation, exit, and attendance data, and through our proposed data linking tools, to outcomes beyond the K-12 system. The teacher identifier will enable us to link the teacher to the students' state assessments and provide the basis for developing a methodology to measure teacher impact on student achievement. When the current Teacher Licensure system is upgraded to capture information on teachers' preparation programs, the linked teacher/student data will be used to create feedback reports that inform teacher preparation programs. The data linking tools described in Outcome 2 will eventually enable VDOE to link data with SCHEV, and a richer set of analyses will be possible for teacher preparation programs in Virginia. Once the Student/Teacher Course Enrollment/Completion is institutionalized in school divisions' daily business practices, we envision expanding the collection to include the data elements necessary to report highly qualified teachers; enabling VDOE to retire the existing process.

Development of the Teacher/Principal Evaluation Data Collection

VDOE will work with school divisions to define the requirements, such as data elements and best time of year to conduct a Teacher/Principal evaluation data collection. It is envisioned that this data collection will be a data entry collection rather than a file upload collection. Data entry would take place via our secure portal. Again working with school divisions, VDOE will develop web site report formats that will be useful and informative for school divisions and the public. Using the computing environment and programming tools described below, VDOE will develop the data collection data entry forms and public web site reports.

At the VDOE, enterprise-wide data collection from school divisions is web-based; through

online data entry or file upload. VDOE provides a single point of access to internal systems for Virginia school division personnel through a secure, web-based portal. Portal account management and application access is managed at the local level, according to local policies. VDOE proposes to use this portal to develop the Course Enrollment/Completion and Teacher/Principal Evaluation data collections.

The VDOE computing architecture is standards-based and scalable to meet future needs. To maximize staff skill sets, the VDOE has standardized on one database and programming environment. Three identical but distinct environments - development, integrated test, and production – enable the VDOE to perform rigorous application testing. The proposed data collections will be developed using this architecture.

Upgrade of the Teacher Licensure System

VDOE's division of Teacher Education and Licensure proposes to enhance the teacher education and licensure applications as described below. The objectives of these enhancements are: 1) to provide additional longitudinal data to track the route(s) to licensure and teacher endorsement(s) resulting in the ability to link teachers to their preparation programs; 2) to leverage business process engineering to improve service delivery to the public and reduce the burden of paper/document handling and of data entry by licensure personnel; and 3) to leverage state-of-the-art Web-based technology, encryption software, and imaging technology in support of the data security, data quality, and business continuity standards, and in support of cost containment with regards to data storage and data processing. The proposed enhancements include:

- 1) Providing a public Web application that enables prospective and current licensees to request a number of actions regarding teacher licensure, such as applying for an initial teaching license, requesting a change to personal information, requesting to add educational degree information or a teaching endorsement, requesting to change a license type or renew a license, obtaining a duplicate copy of one's license, or verifying license status.
- 2) Migrating the current back-office licensure application from a desktop computer-based application to a web-based application, leveraging Web presentation capabilities to optimize and reengineer the associated licensure processes.
- 3) Providing a mechanism to capture longitudinal data for tracking route(s) to licensure and teaching endorsement(s) and licensure.
- 4) Providing a secure and robust mechanism to receive data via the Web and/or as an import file in support of licensure processing for applicants and licensees, including but not limited to:
 - a) Endorsement and education data for approved program completers from institutions of higher education (IHEs) that are approved program providers.
 - b) Transcript data from IHEs utilizing such standards as the XML-Postsecondary Electronic Standards Council (PESC) standard.
 - c) Instructional assessment data from national educational testing entities that administer licensure assessments required by Virginia.
 - d) Disciplinary action against educational personnel data as reported by states via the National Association of State Directors of Teacher Education and Certification (NASDTEC) clearinghouse.
- 5) Providing an encryption/decryption mechanism for storing/displaying personal identifiable information, including, but not limited to, social security number and imaged data.
- 6) Providing a mechanism to generate, store, and index images of dated correspondence produced by the application and sent to the applicants and licensees during the processing of their licensure requests.

