

U.S. Department of Education

Washington, D.C. 20202-5335



APPLICATION FOR GRANTS UNDER THE

STATEWIDE LONGITUDINAL DATA SYSTEMS

CFDA # 84.372A

PR/Award # R372A070008

Grants.gov Tracking#: GRANT00233134

Closing Date: MAR 15, 2007

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Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission: <input type="radio"/> Preapplication <input checked="" type="radio"/> Application <input type="radio"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="radio"/> New <input type="radio"/> Continuation <input type="radio"/> Revision	* If Revision, select appropriate letter(s): _____ * Other (Specify) _____
---	---	---

* 3. Date Received: 03/14/2007	4. Applicant Identifier: _____
-----------------------------------	-----------------------------------

5a. Federal Entity Identifier: _____	* 5b. Federal Award Identifier: _____
---	--

State Use Only:

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

8. APPLICANT INFORMATION:

* a. Legal Name: Colorado Department of Education	
* b. Employer/Taxpayer Identification Number (EIN/TIN): 840644739	* c. Organizational DUNS: 187406538

d. Address:

* Street1: 201 East Colfax Avenue
Street2: _____
* City: Denver
County: _____
* State: CO: Colorado
Province: _____
* Country: USA: UNITED STATES
* Zip / Postal Code: 80203

e. Organizational Unit:

Department Name: _____	Division Name: _____
---------------------------	-------------------------

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

Prefix: _____	* First Name: Dianne
Middle Name: _____	
* Last Name: Kress	
Suffix: _____	
Title: _____	
Organizational Affiliation: _____	
* Telephone Number: 303-866-6823	Fax Number: 303-866-6888
* Email: kress_d@cde.state.co.us	

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:

84.372

CFDA Title:

Statewide Data Systems

*** 12. Funding Opportunity Number:**

ED-GRANTS-121806-001

* Title:

Statewide Longitudinal Data Systems CFDA 84.372A

13. Competition Identification Number:

84-372A2007-1

Title:

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

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

Longitudinal Education Data Access Plan

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

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

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="4,244,519.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="4,244,519.00"/>

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

- a. This application was made available to the State under the Executive Order 12372 Process for review on .
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

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

- 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: * First Name:
Middle Name:
* Last Name:
Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

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Standard Form 424 (Revised 10/2005)
Prescribed by OMB Circular A-102

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.

Attachments

AdditionalCongressionalDistricts

File Name

Mime Type

AdditionalProjectTitle

File Name

Mime Type



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

OMB Control Number: 1890-0004

Expiration Date: 06/30/2005

Name of Institution/Organization:
 Colorado 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	S 0	S 0	S 0	S 0	S 0	S 0
2. Fringe Benefits	S 0	S 0	S 0	S 0	S 0	S 0
3. Travel	S 5,000	S 5,000	S 5,000	S 0	S 0	S 15,000
4. Equipment	S 1,000,000	S 0	S 0	S 0	S 0	S 1,000,000
5. Supplies	S 0	S 0	S 0	S 0	S 0	S 0
6. Contractual	S 1,570,884	S 901,996	S 756,639	S 0	S 0	S 3,229,519
7. Construction	S 0	S 0	S 0	S 0	S 0	S 0
8. Other	S 0	S 0	S 0	S 0	S 0	S 0
9. Total Direct Costs (lines 1-8)	S 2,575,884	S 906,996	S 761,639	S 0	S 0	S 4,244,519
10. Indirect Costs*	S 0	S 0	S 0	S 0	S 0	S 0
11. Training Stipends	S 0	S 0	S 0	S 0	S 0	S 0
12. Total Costs (lines 9-11)	S 2,575,884	S 906,996	S 761,639	S 0	S 0	S 4,244,519

***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): _____

(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(e)(2)?



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

OMB Control Number: 1890-0004

Expiration Date: 06/30/2005

Name of Institution/Organization:
 Colorado 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	S 0	S 0	S 0	S 0	S 0	S 0
2. Fringe Benefits	S 0	S 0	S 0	S 0	S 0	S 0
3. Travel	S 0	S 0	S 0	S 0	S 0	S 0
4. Equipment	S 0	S 0	S 0	S 0	S 0	S 0
5. Supplies	S 0	S 0	S 0	S 0	S 0	S 0
6. Contractual	S 0	S 0	S 0	S 0	S 0	S 0
7. Construction	S 0	S 0	S 0	S 0	S 0	S 0
8. Other	S 0	S 0	S 0	S 0	S 0	S 0
9. Total Direct Costs (lines 1-8)	S 0	S 0	S 0	S 0	S 0	S 0
10. Indirect Costs	S 0	S 0	S 0	S 0	S 0	S 0
11. Training Stipends	S 0	S 0	S 0	S 0	S 0	S 0
12. Total Costs (lines 9-11)	S 0	S 0	S 0	S 0	S 0	S 0

ASSURANCES - NON-CONSTRUCTION PROGRAMS

OMB Approval No. 4040-0007
Expiration Date 04/30/2008

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

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

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

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

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

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Prescribed by OMB Circular A-102

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

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Dianne Kress</p>	<p>* TITLE Colorado Department of Education - CIO</p>
<p>* APPLICANT ORGANIZATION Colorado Department of Education</p>	<p>* DATE SUBMITTED 03-14-2007</p>

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

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

Approved by OMB

0348-0046

<p>1. * Type of Federal Action:</p> <p><input type="checkbox"/> a. contract</p> <p><input checked="" type="checkbox"/> b. grant</p> <p><input type="checkbox"/> c. cooperative agreement</p> <p><input type="checkbox"/> d. loan</p> <p><input type="checkbox"/> e. loan guarantee</p> <p><input type="checkbox"/> f. loan insurance</p>	<p>2. * Status of Federal Action:</p> <p><input type="checkbox"/> a. bid/offer/application</p> <p><input checked="" type="checkbox"/> b. initial award</p> <p><input type="checkbox"/> c. post-award</p>	<p>3. * Report Type:</p> <p><input checked="" type="checkbox"/> a. initial filing</p> <p><input type="checkbox"/> b. material change</p> <p>For Material Change Only:</p> <p>year quarter</p> <p>date of last report</p>	
<p>4. Name and Address of Reporting Entity:</p> <p><input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee Tier if known:</p> <p>* Name: Dianne Kress</p> <p>* Address: 201 East Colfax Avenue</p> <p>Denver</p> <p>CO: Colorado</p> <p>80203</p> <p>Congressional District, if known:</p>	<p>5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:</p>		
<p>6. * Federal Department/Agency:</p> <p>Department of Education</p>	<p>7. * Federal Program Name/Description: Statewide Data Systems</p> <p>CFDA Number, if applicable: 84.372</p>		
<p>8. Federal Action Number, if known:</p>	<p>9. Award Amount, if known:</p>		
<p>10. a. Name and Address of Lobbying Registrant (if individual, complete name):</p> <p>* Name: N/A</p> <p>N/A</p> <p>* Address:</p>	<p>b. Individual Performing Services (including address if different from No. 10a):</p> <p>* Name: N/A</p> <p>N/A</p>		
<p>11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</p>			<p>* Signature: Dianne Kress</p> <p>* Name: Ms. Dianne Kress</p> <p>Title: Colorado Department of Education, CIO</p> <p>Telephone No.: 303-866-6823</p>

	Date: 03-14-2007
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Public Burden Disclosure Statement

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 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 (0348-0046), Washington, DC 20503.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

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

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

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

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

Statement for Loan Guarantees and Loan Insurance

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

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

* APPLICANT'S ORGANIZATION Colorado Department of Education	
* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE Prefix: * First Name: Dianne Middle Name: * Last Name: Kress Suffix: * Title: Colorado Department of Education - CIO	
* SIGNATURE: Dianne Kress	* DATE: 03/14/2007

SUPPLEMENTAL INFORMATION REQUIRED FOR DEPARTMENT OF EDUCATION GRANTS

1. Project Director

*** Name:**

Ms.

Dianne

Kress

*** Address:**

201 East Colfax Avenue

Denver

CO: Colorado

80203

USA: UNITED STATES

*** Phone Number:**

303-866-6823

Fax Number:

303-866-6888

Email:

kress_d@cde.state.co.us

2. Applicant Experience:

Yes No Not applicable to this program

3. Human Subjects Research

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

Yes No

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

Yes Provide Exemption(s) #:

No Provide Assurance #, if available:

Please attach an explanation Narrative:

FileName

MimeType

Project Narrative

Abstract Narrative

Attachment 1:

Title: Pages: Uploaded File: 3321-LDSGrant_SECTION_E_Project_Abstract.pdf

SECTION E: Project Abstract

The Colorado Department of Education (CDE) is committed to providing resources that will allow districts to assist its students in reaching their potential. A key element to this success area is efficient, timely transfer of information through data exchange. This information impacts students, parents, teachers, administrators and districts in their quest for maximum outcomes. Unification of data expands the capacity for research that leading enhanced quality of instruction and thus to greater student achievement.

Since the CSAP (Colorado Student Assessment Program) testing program began in 1997, the need for stakeholders to receive more user-friendly information in more ways has presented the Department with ever growing challenges.

With assistance from the Legislature, CDE has made substantial strides in building a longitudinal data system. An Education Data Warehouse was created in 2001 and, due to its flexible design, has been expanded yearly. In 2002 a state-wide student identifier system was implemented and the Department began collecting identifiable student-level data. In 2005 CDE developed the Colorado Education Data Analysis Reporting system (CEDAR). The CEDAR system is the Department's window into the data warehouse. Utilizing Cognos business intelligence software, districts and limited CDE staff have access to tools which allow them to do ad-hoc analyses, ad-hoc reporting and provides access to reports designed by districts.

The Department acknowledges that additional resources are now critical to the efficient, up-to-date and cost-effective accomplishment of our mission. This grant, our **Longitudinal Education Data Action Plan (LEAP)**, will enable CDE to build upon its current accomplishments detailed above. Our progress to date has been slowed more by lack of consistent resources than vision. We have accomplished enough to understand that future success requires us to step back and build and enhance several key components upon which our goals depend.

CDE has identified 3 areas that would allow the department to reach its goals. These initiatives include the following:

- Rapid expansion of Colorado's Education Data Warehouse to support unification of data for research and reporting.
- Transfer of Transcript/Student Data between local education agencies and between local education agencies and higher-education to support appropriate placement of students in our education system
- Expansion of data analysis and reporting capabilities.

This application addresses our need for data unification and access that will significantly enhance our ability to receive and deliver data in a timely manner and lower costs for the school districts.

Project Narrative

Project Narrative

Attachment 1:

Title: Pages: Uploaded File: **2467-Mandatory_LDSGRANT_SECTIONS_F-G-H-J_Project_Narrative.pdf**

SECTION F: Project Narrative

Section Contents:

- **Need For The Project..... page 1**
 - **Longitudinal Data Systems Background..... page 1**
 - **Status of Colorado’s Current Statewide Data System.....page 3**
- **Project Design..... page 9**
 - **Data Warehouse Expansion..... page 11**
 - **Automate Transcript and Student Data Transfer..... page 15**
 - **Data Analysis and Reporting..... page 17**
 - **Technical Data Standards..... page 19**
- **Project Personnel..... page 19**
- **Resources..... page 21**
- **Management Plan..... page 22**
 - **Initiating Phase.....page 22**
 - **Planning Phase.....page 23**
 - **Executing/Controlling.....page 23**
 - **Project Close-out.....page 23**

Need for the Project

Longitudinal Data Systems Background

The Colorado Department of Education is submitting an application for a Longitudinal Data Systems grant. Colorado’s Longitudinal Education Data Action Plan (LEAP) builds upon the foundation of our statewide student record system begun in 2002. Beginning in 1993, the state implemented state model content standards describing what each student should know and be able to accomplish in areas including mathematics, reading and writing at various grade levels. Building on these standards, in 1997 Colorado began the Colorado Student Assessment Program (CSAP) to assess students in the common core academic areas throughout their schooling. Beginning as tests of 4th grade reading and writing in 1997, the CSAP program currently tests Colorado students in grades 3 through 10 in reading and writing and math and grades 5, 8 and 10 in science.

From 1997 to 2000 the Colorado Student Assessment Program (CSAP) was a school and student ‘snapshot’ in the content areas of reading, writing and math. In 2001, CDE initiated the publication of annual school report cards and the development of an Education Data Warehouse as authorized by Colorado Senate Bill 186. Immediately, we realized that all we could report to the public was a single-year performance rating on CSAP. Recognizing schools’ performance at one point in time proved only a limited view and excluded the ability to give credit for growth of individual students or effectiveness of schools to move students up from their starting levels, additional steps need to be implemented.

Because Colorado did not have a statewide unique, permanent student identifier, the measure of growth and improvement for schools in the second year was a comparison of each grade’s

percent of students at proficient and advanced levels on CSAP for two years. This was far short of the ultimate goal of measuring individual student growth from grade to grade and using the results for diagnostic purposes. In 2000, when SENATE BILL 186 was passed, the CSAP did not have assessments in consecutive grade levels, assessments in all areas across grade levels, or vertical scaling that made scores comparable across grades and years. Colorado educators and legislators in 2000 had not developed a consensus on the relative merits of alternative methods for rating school performance growth. These methods were not as well known (or marketed) as they are now. In fact, the mandates of No Child Left Behind began a nationwide re-assessment of the validity and efficacy of individual states' growth models. As of 2007, all of this had changed. Today, more alternatives are available because the CSAP assessment program has added grade levels and content areas, and CDE has implemented an individual student identifier and record system that allows for linking a student's record across years.

In 2004 and 2007, the Colorado Legislature passed House Bill 04-1433 and House Bill 07-1048. To our knowledge, these bills are without precedent, both in their mandate to estimate and report individual growth trajectories for each student in the state and in their combination of those trajectories to judge school contributions to student improvement. These Bills require that Colorado implement a longitudinal growth model for students using CSAP assessments that will measure whether or not each student is making adequate yearly progress so as to perform at least at the proficiency level of "proficient" in reading, writing, and mathematics by the time the student completes grade ten. The goal of such a system is to provide diagnostic information to students, parents, teachers, and schools on the longitudinal progress of each student.

Today, in 2007, Colorado finds itself on the verge of detailed longitudinal data analysis, data sharing, and automated federal reporting. A large volume of historic and current data is already in place, identified by individual students, in the form of a dimensional data warehouse. Extract, Transformation, and Load routines are utilized to swiftly move data from collection databases to a central warehouse.

CDE has recently formed a Longitudinal Data Unit whose purpose is to provide overall leadership for CDE's implementation of longitudinal growth measures in accordance with state legislation, manage the development of improved reporting strategies to disseminate longitudinal growth data to a variety of stakeholders, deliver training/technical assistance in the use of this data, and participate in program evaluation efforts using longitudinal data to better understand the efficacy of district school improvement strategies.

Senate Bill 140 has passed the Senate and the House Education Committee. This bill will create a teacher commission in the CDE and conduct a feasibility study on creating a unique teacher identifier system.

CDE has designed a new portal, the Colorado Education Data Analysis & Reporting System (CEDAR). This system is comprised of a Business Intelligence tool, COGNOS, which will provide users the capability of creating reports for their stakeholders. Users also have access to their district's CSAP data for evaluating performance results. CEDAR provides the ability for a district user to compare his/her district to other districts that the user considers comparable. The data from other districts has been aggregated to the most granular level possible to provide useful

comparisons and still preserve student confidentiality. With this system, the districts can more easily access and determine the level at which their students achieve the Colorado Model Content Standards.

What is needed now is a concentrated focus and effort on providing data in a useful format to a broader array of Colorado's education professionals and the Federal government's ED Facts initiative. In other words, turn this mountain of data into actionable information. Our grant application is critical to Colorado's longitudinal initiative, and while our foundation is solid, we have been unable to access the correct tools to ensure success. Despite evident accomplishments we have made to date, the fact is we are moving too slowly to adequately benefit the current cohort of students moving through our schools.

LEAP will enable CDE to build upon its current accomplishments detailed above. Our progress to date has been slowed more by lack of consistent resources than vision. We have accomplished enough to understand that future success requires us to step back and build/enhance several key components upon which our goals depend. These key components include the following:

- Improvement of the academic proficiency and preparedness of Colorado's students so they meet our learning standards and are prepared for success in postsecondary education and the workforce by ensuring that timely and quality data are available for decision making and instructional planning.
- Rapid expansion of Colorado's Education Data Warehouse to support unification of data for research and reporting.
- Transferring Transcript/Student Data between local education agencies and higher-education to support appropriate placement of students in our education system
- Expansion of local data analysis and reporting capabilities.
- Sound, professional project management processes to ensure that the resources available to address these goals are used effectively and produce the anticipated results for the students of Colorado.

Status of the State's Current Statewide Data System

Broken down by the Longitudinal Data Grant's eight required technical components and six required governance and policy components is a summary of the current status, need, and potential impact.

Required Technical Component *A unique permanent student identifier assigned by the State or coordinated by the State*

CDE implemented a unique student identifier for 760,000 + public school students in November, 2002. This identifier has allowed the Department to perform longitudinal analysis at the student level since the 2002-2003 test administration. The state performs all case management for the districts by resolving potential issues surrounding duplicate student identifiers. When student level data are reported to CDE, the SASID (State-Assigned Student Identifier) is attached to the record. When the data are loaded into the data warehouse the SASID is encrypted and personal

information is removed. CDE and the Colorado Commission on Higher Education have also signed a Memorandum of Understanding allowing CDE to share SASIDs so that program evaluation can continue beyond 12th grade.

Required Technical Component *An enterprise-wide data architecture that:*

- *Is based on analysis of needs at the classroom, school, district, State, and Federal Level*

Current Limitations: Before initially implementing the Colorado Education Data Analysis Reporting system (CEDAR), a sampling of districts, representing various sizes and demographics, were interviewed by CDE and our vendor to determine what their reporting and analytical needs were. Based on those interviews, CDE designed assessment and AYP cubes and reports. We have also trained 384 users in 89% of the districts in the use of the COGNOS Business Intelligence tools. The CEDAR users haven given extremely positive feedback on the data and the tool but want to see broader access (number of users) and more data. Federal reporting needs have been only partially met as we continue our analysis and development for the EdFacts reporting system.

Gains with Proposed Grant: During numerous CEDAR trainings and on-line surveys of the districts, CDE has gathered a “wish list” of additional reporting and analytical needs. The Department is constrained by its technical resources and COGNOS licensing limitations. This grant will allow us to capitalize on the current momentum by giving us the funding to hire contractors to assist us in building additional cubes and reports, and provide professional development skills to maximize tool usage and effectiveness.

- *Includes at a minimum all data elements required for reporting under the Elementary and Secondary Education Act of 1965, including all data elements required for the ED Facts reporting system:*

Current Limitations: While CDE’s Operational Data Store contains the required Federal data elements and more, our Education Data Warehouse (EDW) contains only 60% of that data. As part of its plan for a comprehensive Longitudinal Data System we must integrate the additional 40% of the data into our EDW where it can then be easily linked across time and used for data analysis and reporting (including the ability to produce all ED Facts submission files).

Gains with Proposed Grant: This grant will enable CDE to expand the contents of the Data Warehouse enabling access to all education program data across years and to streamline Federal reporting. The grant will also enable CDE to automate the process of creating ED Facts files directly from the Data Warehouse. The enhancements will facilitate research to assess the effectiveness of educational programs and other central education policy issues.

- *Allows for longitudinal analysis of student achievement growth and program evaluations:*

Current Limitations: CDE's has successfully implemented some student-level longitudinal data to a limited audience. Cognos business intelligence products have provided the infrastructure to initiate this effort. Current licensing limits the allowable user access to 2 people per district. Limited staff resources prevent rapid development and deployment of additional longitudinal reports and analysis cubes. Lack of expert training and professional development from CDE also limits the effectiveness of longitudinal data analysis

Gains with Proposed Grant: With the grant, CDE proposes to rapidly expand access to longitudinal data, increase the number of student achievement reports, and offer professional development services to maximize data analysis effectiveness.

- *Is relational and links records across information systems*

Current Limitations: While housed within a relational database (Oracle), CDE's current limitation is the breadth of data contained in our existing warehouse. Some information remains siloed and isolated from the centralized data repository.

Gains with Proposed Grant: With the grant, CDE proposes to expand data subject offerings within the existing architecture. Specifically, data expansion opportunities exist in the following subject areas: Longitudinal Projections and detailed student-level analysis; Graduation/Drop-out data (student level); Homeless and Migrant data (student level); Teacher Statistics; Special Education. Building off the current enterprise-wide architecture, CDE plans to integrate records from additional systems to further evolve the relational data warehouse.

• *Specifies a data model, data, dictionary, business rules, and quality assurance procedures*

Current Limitations: CDE employs rigorous validation procedures and data edits as part of its data collection processes. Business rules are documented and data models are in place. CDE's primary limitation of this aspect is the notion of a centralized, comprehensive Data Dictionary. Current meta-data information is splintered among data collections and reports.

Gains with Proposed Grant: Intricately related to quality assurance procedures and business rule definitions is development of a comprehensive Data Dictionary. Through various attempts to collect and organize data elements, CDE has realized both the importance of a comprehensive data dictionary and the supreme effort required to create such a repository. While an effort is currently in progress, additional resources and expertise are desired to swiftly and accurately meet the goal of determining how, why, and when every single piece of data is collected by the state, how the data is housed or organized, and the means by which that data ultimately gets aggregated or reported.

Required Technical Component Procedures for protecting the security, confidentiality and integrity of data which includes ensuring that individually identifiable information about staff and students, their history, and their families remains confidential in accordance with the Family Educational Rights to Privacy Act (FERPA) and other relevant legislation.

Current Limitations: CDE employs rigorous security for its applications and data including encrypted student identifiers in the data warehouse, password protection for all applications, and a secure website for all applications containing sensitive data. The Colorado Education Data Analysis and Reporting system (CEDAR) is a web-based information portal accessed via a secure web server (https) that requires pre-approved users to login to the system. Only authenticated personnel are able to create filtered reports and/or drill into detailed analysis 'cubes', depending on their security level or 'role'. We are also entertaining a quote for software to encrypt critical data in our data warehouse. To date we have erred on the side of caution when granting access to data, limiting it to districts accessing their own data, consultants under contract with the Department who sign a confidentiality agreement, and key CDE staff who have a certifiable need.

Gains Proposed With Grant: In addition to what is currently available, CDE recognizes the need for access by a broader group of stakeholders who can impact both policy and instruction. This includes, but is not limited to, higher education institutions and the education research community not under contract with the Department. This grant will provide us with the funding to hire experts in FERPA and other federal and state regulations to help us setup a review board, rubrics to evaluate data requests, and policies so that we can equitably provide data to approved requestors. We are aware that many states are in need of similar guidance and will share all policies and procedures in support of education reform.

Required Technical Component *Automated reporting, with a calendar and reporting formats that ensure timely and accurate data to meet local, State, and Federal reporting requirements, including the commitment and ability to report all EDFACTS data groups by the completion of the grant.*

Current Limitations: While data definition and format standards for submitting data to CDE exist, the format for data exchange is limited to fixed length record structures specific to Colorado's reporting needs. The Education Data Advisory Committee (EDAC) publishes a collection calendar available on the web and officially certifies all collections approved by this committee by providing a stamp. Standards for electronically exchanging data between districts or districts and higher education-such as for student transcripts- do not exist. In regards to EDFacts, CDE is working hard to automate file generation for those required data groups that currently reside in the Data Warehouse, but not every data group is currently warehoused.

Gains with Proposed Grant: This grant will be used to adopt and implement a national standard for data formats and definitions, the School Interoperability Framework (SIF) - which would facilitate efficient sharing/transfer of records districts, between districts and CDE, CDE and other states. The implementation of these standards would facilitate the exchange of consistently defined and formatted data among districts and states including the electronic transfer of transcripts. This grant will also facilitate subject expansion of the current data warehouse in order to enable automated file generation for ALL EDFacts data groups.

Required Technical Component *A data warehouse or comparable means for managing and storing longitudinally linked data and making them accessible to teachers, schools, districts, and researchers.*

Current Limitations: CDE has had an Education Data Warehouse since 2001. Built on a solid foundation the data warehouse is fully positioned for continued expansion to include the enhancements noted throughout this grant application.

Gains with Proposed Grant: Warehouse expansion would include Longitudinal Projections and detailed student-level analysis (i.e. based on past 3 years of scores, student projects to be 'proficient' in reading by 10th grade), Graduation/Drop-out data (student level), Migrant/Homeless data(student level), Teacher Statistics, and Special Education information.

Required Technical Component *Capacity to exchange student data across institutions within the State and with institutions in other States, in conformance with FERPA.*

Current Limitations: Colorado has established fixed length formats as the standard for file transmissions. While data standards have been established by the state, additional standards must be implemented. The school districts in the state have no standard formats or data standards for exchange of data between them.

Gains with Proposed Grant: This grant will allow us to implement SIF (School Interoperability Framework), a national format for data transmission. SIF can be leveraged to create efficiency in data exchange protocols. CDE can drive standardization through this grant. Additionally, by implementing additional data standards, like NCES' course classification system which can be used for crosswalks among individual district course numbering systems, more consistent data can be made available for research. By implementing a transcript exchange system, districts will be able to focus on data quality.

Required Technical Component *Secure access to data marts, or comparable means for providing data, reports, and ad hoc analyses to inform decision-making of key stakeholders, including teachers, administrators, State and local officials, and possibly students and parents' and administrators.*

Current Limitations: The CEDAR system is the Department's window into the data mart for purposes of ad-hoc analyses and accessing reports and reporting tools. The system is password protected and users must obtain signoff from their Superintendent in order to gain access. To date access is limited to 2 district personnel logins and a number of CDE staff. District personnel have access to the most granular level of their own data. They also have access to the aggregated data of other districts. The CEDAR system is located on a secure website using SSL. All web interfaces dealing with sensitive and critical education data are processed via a three tier architecture including firewalls and a DMZ. This is a very limited group of stakeholders and needs to be broadened.

Gains with Proposed Grant: As CDE expands the CEDAR system to a wider audience, policies and a review board must be established that adhere to FERPA guidelines and other federal and state regulations. This grant will allow us to hire this expertise to establish the appropriate policies and procedures. The purchase of additional licenses will allow us to expand access to a larger audience of stakeholders.

Required Technical Component *Ability to support analysis and research to evaluate the effectiveness of education-related programs and thereby to improve student learning and close achievement gaps.*

Current Limitations: The Department has adopted the business intelligence tools, COGNOS' ReportNet and PowerPlay, to present data in a user-friendly manner. CDE has recently established and is charged with managing the development of improved reporting strategies to display and disseminate longitudinal growth data to schools, districts, and public audiences; developing and delivering training and technical assistance for schools, districts, and BOCES staff on the appropriate use of state longitudinal growth information for school improvement and external accountability purposes; responding to requests from qualified researchers for access to CDE longitudinal data sets, in accordance with state legislation, FERPA, and other state and federal policies; and participating in program evaluation efforts using longitudinal data to better understand the efficacy of state and district school improvement and reform strategies. While having some longitudinal data in data warehouse, there is a need to expand the available data as well as expanding the audience to whom this data will be made available.

Gains with Proposed Grant: By hiring contractors through this grant, CDE's data warehouse will be expanded to include more data for analysis. Hiring experts in developing data access policies and setting up review boards will appropriately broaden the types and number of stakeholders that will access this data. Additional COGNOS licenses will provide a portal for quick and equitable dissemination of data so that student learning can be impacted in a timely manner.

Policy/Implementation Component: *A clearly articulated governance structure, which includes representatives of all key State and local stakeholders, for designing, developing, and*

implementing the statewide longitudinal data system, and for maintaining and enhancing the system once it is completed.

A LEAP Governance Committee shall be established by the Colorado Department of Education. This committee will be comprised of CDE's Longitudinal Data Unit Director, CDE's Director of Data and Research, CDE's Chief Information Officer, and 6 members appointed by the Colorado State Board of Education representing a small, medium, large and rural school district across the state, a member representing the state's research community, and a member of a special interest group. This committee will be charged with overseeing the on-going unification of longitudinal data to ensure the timely availability of quality data to its stakeholders.

Policy/Implementation Component: *A communication infrastructure for providing timely information to all key stakeholders about the project's goals, progress, and impact on education management and student learning*

As part of the Project Manager responsibilities and in collaboration with each of the LEAP initiative teams, documents detailing all project goals, activities, timelines and documents will be posted on a Longitudinal Data Systems website. E-mail list serves, the Commissioner's Newsletter, and our Regional Services teams will inform stakeholders about the LEAP initiative and the website.

Policy/Implementation Component: *A clearly defined procedure for facilitating rigorous analyses and providing system data for policy oriented research, in conformance with FERPA requirements*

In addition to what is currently available to districts, a select group of CDE staff, and researchers under contract with the Department we recognize the need for access by a broader group of stakeholders who can impact both policy and instruction. This includes, but is not limited to, higher education institutions and the education research community not under contract with the Department. This grant will provide us with the funding to hire experts in FERPA and other federal and state regulations that can help us setup a review board, rubrics to evaluate data requests, and policies so that we can equitably provide data to approved requestors. We are aware that many states are in need of similar guidance and will share all policies and procedures in support of education reform.

Policy/Implementation Component: *A program for ongoing training of all key users of the data systems.*

CDE recognizes the importance of on-going training and commits to providing the resources necessary to ensure data driven decision making is a Department initiative. Stand-up technical training on the use of business intelligence tools will continue to be provided by the Department. Web-based training developed through this grant will be used to supplement stand-up training and as a model to create future training courses. Our Longitudinal Data Unit will provide professional development to district personnel on the interpretation and use of data to improve instruction as well as participating in Conferences for the same purpose. The Department is always seeking out organizations that it can partner with to expand training opportunities for its stakeholders.

Policy/Implementation Component: *Ongoing, formative and summative evaluation procedures for determining whether the developed system meets reporting and decision-support needs of all of its key stakeholders for assessing the role of the system in interventions intended to improve student learning and close achievement gaps.*

At the onset of the LEAP initiative a Project Evaluator will be hired. The Evaluator will set an initial baseline for all initiatives. Over the life of the project the Evaluator will use this baseline data to determine how many stakeholders were served during this project, the quality of that service or product, their overall satisfaction, and the extent that this project improved data driven decisions and, ultimately, student achievement. The results of this evaluation will be used by the LEAP Governance Committee to set the direction for on-going longitudinal data activities.

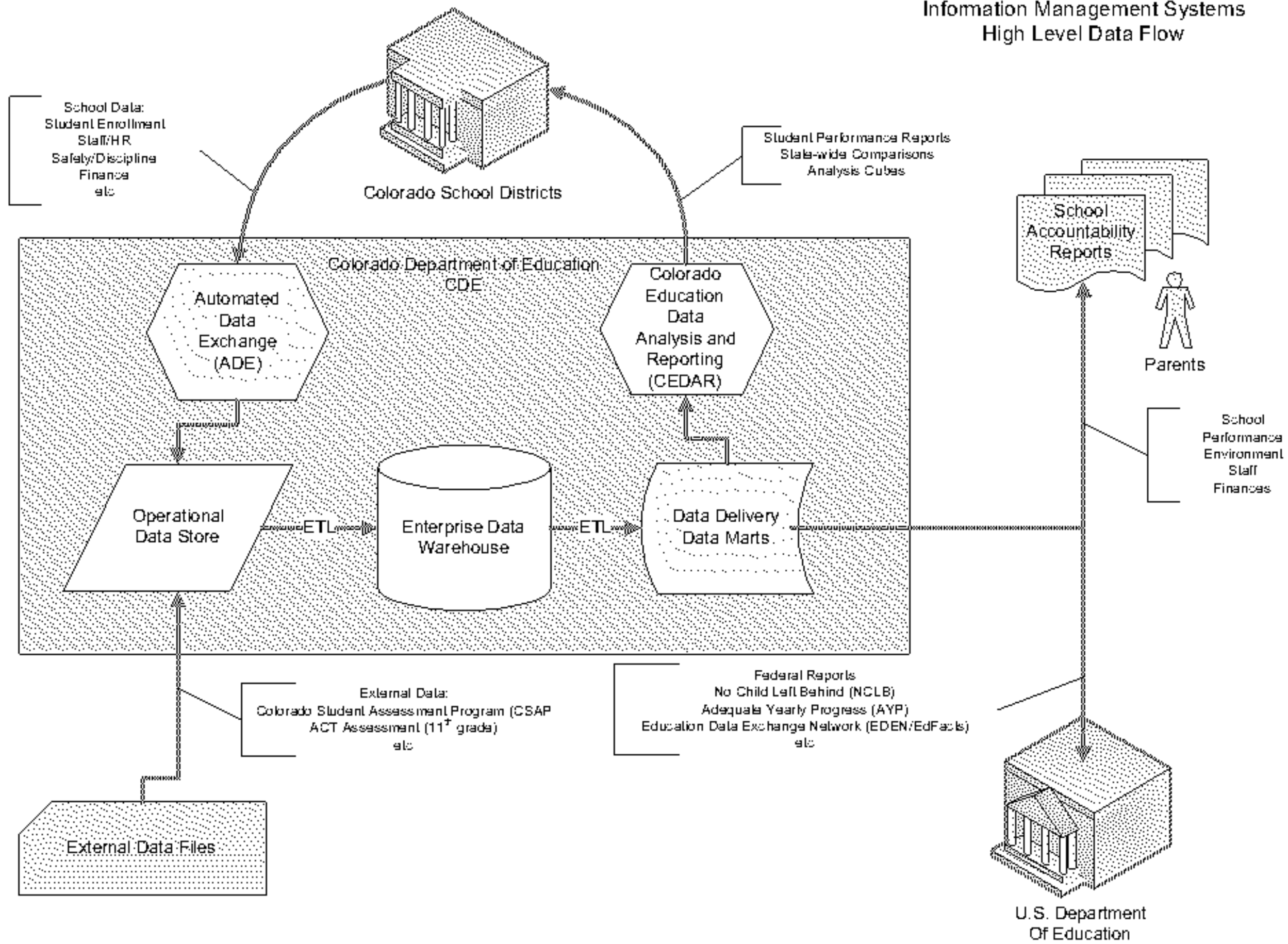
Policy/Implementation Component: *A long-term plan for sustaining the system over time, including allocation of the necessary staff, technical, and monetary resources, and training/technical assistance to key users (teachers, principals, and other district and State education agency staff.*

CDE has demonstrated commitment to building and sustaining a long term longitudinal data system. Since the passage of SENATE BILL-186 in 2000, state funding has been made available to support the technical infrastructure and staff to support the technical infrastructure, data, and limited staff to support the data warehouse. In 2004 the Chief Information Officer hired a dedicated data warehouse team to support the data warehouse and the delivery of information to CDE stakeholders. If this grant is awarded, the Department will continue to increase the level of staffing support to match the increased demands in the areas of user support, training, and technical infrastructure. A bill is currently before the legislature which will mandate a Feasibility Study for creating a state student information system.

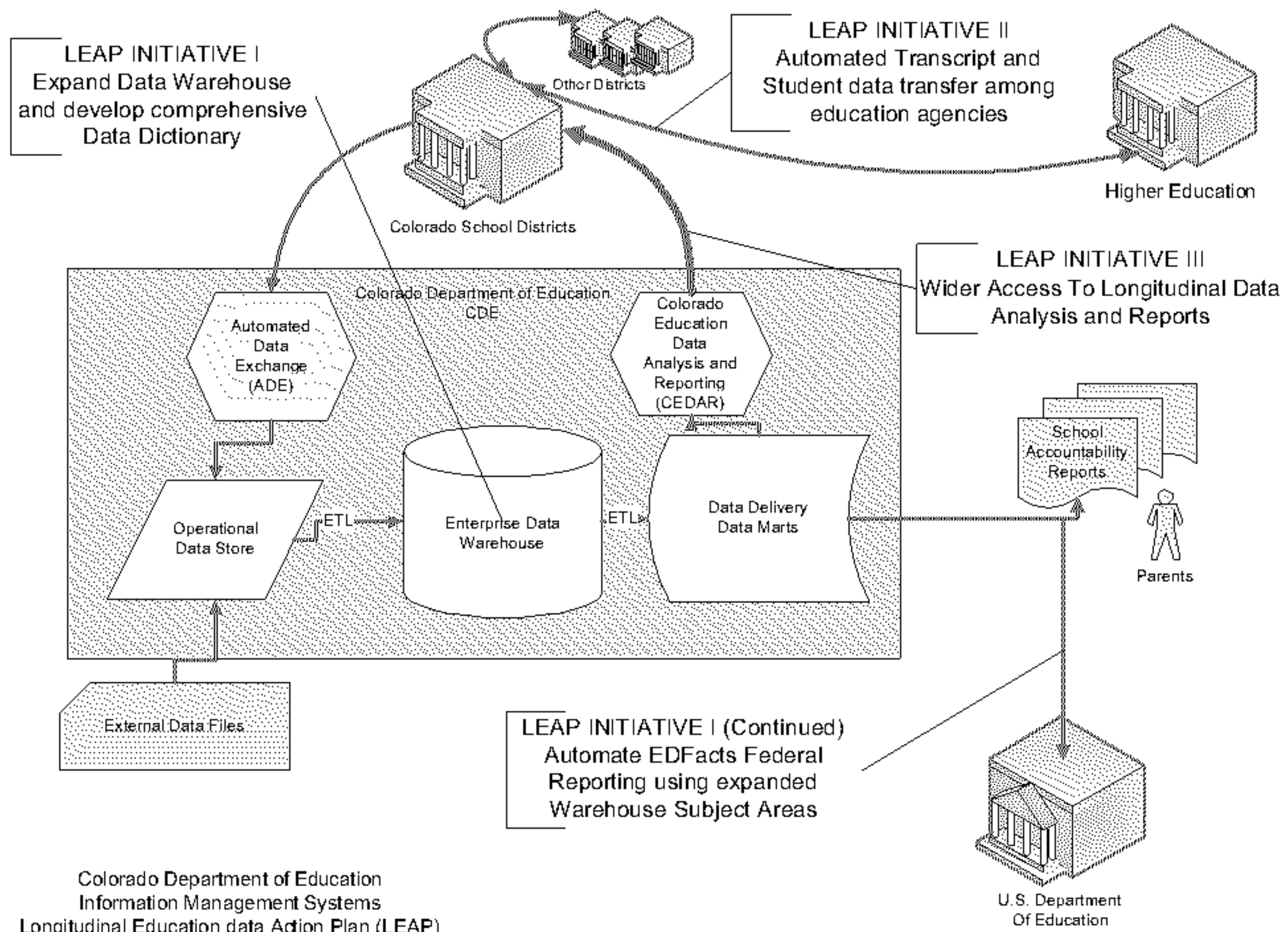
PROJECT DESIGN

The following diagram depicts the high-level data flow architecture for the Colorado Department of Education:

Colorado Department of Education
Information Management Systems
High Level Data Flow



Colorado's **Longitudinal Education Data Action Plan (LEAP)** builds upon the foundation of our statewide student record system begun in 2002. Three major initiatives of LEAP aim to expand the current Data Warehouse, automate transcript and student data transfer among education agencies, and rapidly expand access to student-level data analysis and reporting. LEAP Initiatives are depicted in the next data flow diagram:



LEAP INITIATIVE I – Data Warehouse Expansion

Initiated in 2001, the Colorado Department of Education’s Enterprise Data Warehouse continues to mature and evolve. At the present time, the data warehouse and associated reporting systems provide information on these subjects:

- Accreditation (District-Level)
- Adequate Yearly Progress AYP (District, School, Student-Level)
- Assessment (District, School, Student-Level)
- Safety and Discipline
- School Accountability
- School/District Finance
- School Staff

Immediate expansion needs identified by CDE, school districts, and project stakeholders include:

- Longitudinal projections and detailed student-level analysis (i.e. based on past 3 years of scores, student projects to be ‘proficient’ in reading by 10th grade)
- Graduation/Drop-out data (student level)
- Migrant/Homeless data (student level)
- Teacher Statistics/Licensure (teacher level detail)
- Special Education (student level)

In all cases, these critical subject areas warrant data warehouse expansion and augmentation. CDE’s proven approach to providing accurate and reliable reporting information involves capturing and warehousing a validated single version of the truth. While this takes upfront planning, coordination, and detailed data processing, the end result is a sustainable and reliable database of report-ready data. Work to be done in all these areas includes: gathering reporting and data analysis needs from key stakeholders, developing database models to house the information in query-ready formats, architecting data extract-transformation-load routines to move data from source to warehouse to on-line information systems, and developing reports and/or data cubes for information access.

CDE has limited internal staff available to build out the data warehouse quickly and produce reports for these desired subject areas. Rather than slowly build this over a period of many years, Colorado seeks to LEAP forward by contracting expert services to supplement the work of internal development and maintenance staff. Based on prior contract services that successfully assisted in the development and deployment of AYP and Assessment data, CDE estimates the following budget requirements for data warehouse enhancements:

	Longitudinal Analysis	Grads/ Drop-outs	Migrant/ Homeless Data	Teacher Stats	Special Ed	Total hours
Project Management	180	140	100	180	160	760
Systems Architecture	240	240	80	240	160	960
Database Modeling	120	120	180	160	240	820
ETL (data flow) Development	400	400	160	400	400	1760
Report/Data Mart/Dictionary Development	960	560	400	880	560	3360
Validation /Testing	160	160	120	160	200	800
Total	2060	1620	1040	2020	1720	8460 hours

The LEAP plan calls for expanding the data warehouse to incorporate these five subject areas over a 3 year period:

- Year 1
 - * Longitudinal Analysis
 - * Graduation Drop-outs
 - 3,680 hours total contracted services
- Year 2
 - * Migrant/Homeless Data
 - * Teacher Statistics
 - 3,060 hours total contracted services

- ⊛ Year 3
 - * Special Education
 - 1720 hours total contracted services
 - ◆ TOTAL CONTRACTED HOURS OVER 3 YEARS = 8460

It is important to note that planned contract services will *supplement* the work of existing CDE technical staff. CDE has in-house expertise in all phases of the development lifecycle, including access to certified project managers from a state-level IT agency. Contracted services are planned to *expedite* the delivery of additional data subject areas within the current reporting infrastructure.

Automation of Federal Data Submission Files

A direct benefit of data warehouse expansion is accurate and timely submittal of Federal data. A tremendous amount of CDE effort has already been poured into the process of creating, validating, and submitting data files for the Federal-based Education Data Exchange Network (EDEN) project. Since the inception of this project (initially called PBDMI – Performance Based Data Management Initiative), CDE has worked diligently to automate the creation of data files while incorporating rigid data quality standards. For the 2006-2007 submission cycle, CDE has the current capacity to create, validate, and submit 79 out of 172 requested data files.

The arduous process of aligning business unit data flow processes with the technical demands of EDEN requires dedicated resources and project management skills. Grant dollars can be utilized to provide these focused resources and enable Colorado to fully automate and validate the process of submitting all 172 EDEN files by the legislated mandate of 2008-2009. Ultimately, this will benefit all Colorado educators and researchers via the ED Facts data reporting system – the Federal data window that promises to provide education data and statistics for state-by-state comparison and analysis.

Based on past efforts to create and submit EDEN files for the 2004, 2005, and 2006 data cycles, CDE has determined an average of 28 hours per file is required for pre-warehoused data.

EDEN FILE GENERATION PROCESS	Maximum time (hours)	Minimum time (hours)	Observed Average (hours)
File Specifications review/analysis	2	2	2
Design/Develop automated file creation routines	20	1	12
Create/Review file for approval	4	2	3
Validation of file by data steward	12	4	8
Submit File via EDEN, resolve edit checks	5	2	3
TOTAL ESTIMATED HOURS	43 Hours	11 Hours	28 Hours on Average

As EDEN matures, and CDE gains experience in the creation and validation process, the average hours required to produce and submit each file should gradually decrease. However, due to

significant file changes thus far imposed by EDEN every year, we have not yet realized true cost savings. Constantly rewriting automated routines to match changing requirements makes it increasingly difficult to keep up with growing EDEN demands.

For the 2006-2007 school years, EDEN has requested the submission of 172 Colorado data files. Current Colorado plans call for the creation and submission of 79 out of those 172 files during the 2007 submission cycle, fully utilizing the resources of 1 full time person. These 79 are the ‘easy’ files, projected to be generated from data already stored and organized in the CDE Data Warehouse.

The remaining 93 files will build off warehouse expansion efforts. The twenty-eight hour estimate for file preparation is required for all 93 files. The estimated effort looks like this:

REMAINING EDEN FILE GENERATION EFFORT	Estimated Effort per file	Number of EDEN Files	Total Estimated Effort
File Generation/Validation	28 Hours	93 Files	2,604 Hours

This grant will allow this work to be outsourced, via contracted services, with technical guidance from CDE staff. Project management will be supplied by the Office of Information Technology, an office reporting to the Governor or by a contracted Project Manager. The work shall take place over a two year period, with completion in 2009, corresponding with the EDEN mandate for one hundred percent of mandatory files submitted for the 2008-2009 collection.

Creation of Comprehensive Data Dictionary

Intricately related to the Data Warehouse expansion effort is development of a comprehensive Data Dictionary. Through various attempts to collect and organize data elements, CDE has realized both the importance of a comprehensive data dictionary and the supreme effort required to create such a repository. While an effort is currently in progress, additional resources and expertise are desired to swiftly and accurately meet the goal of determining how, why, and when every single piece of data is collected by the state, and the means by which that data ultimately gets aggregated or reported.

A complete element-level Data Dictionary will help CDE to determine where redundant collections may be consolidated or streamlined, as well as providing education researchers a centralized list of available data elements. The Data Dictionary will also serve as a data ‘roadmap’ for Colorado’s EDEN file generation process – detailing source collections, edit checks, and transformation rules for every EDEN data element. The same data ‘road map’ idea applies for Colorado’s on-line Education Data Analysis and Reporting system (CEDAR).

In addition to providing definitions and relationships of data, a comprehensive Data Dictionary also provides the basis for consolidation of inputs and outputs. Armed with a complete set of required elements, duplicative requests can be either justified or eliminated. Once completed, a comprehensive Data Dictionary enables CDE to streamline data collections and outputs, ultimately leading to better data quality for EDEN/EDFacts and reduced burden on data gathering and submittal for both CDE and Colorado’s local school districts. Focus can then shift from data gathering to data analysis.

Approximately 5,000 unique data elements are currently captured or calculated by CDE. About 2,500 distinct business rules are applied to these elements, and roughly 100 collections and 500 reports comprise the primary inputs and outputs. This adds up to 8,100 primary data dictionary items. At an average rate of 4 definitions an hour, it is estimated to take 2,025 hours to fully populate a comprehensive data dictionary for the Colorado Department of Education. Spread over a three-year period, this equates to 675 hours per year. Once the data dictionary is fully populated, CDE will allocate sufficient resources to keep the dictionary up-to-date, and synchronized with federal dictionaries from NCES and EDfacts.

As these data elements, relationships, and descriptions are collected and organized, CDE plans to create a java-based web interface – similar to the NCES on-line handbooks. While initial requirements and interface design prototypes are currently in progress, CDE would like to supplement this technical work with grant dollars to assist with the arduous data gathering and definition effort.

LEAP INITIATIVE II - Automate Transcript/Student Data transfer between local education agencies and between local education agencies and higher-ed

Some Colorado school districts have expressed a desire to automate the transfer of student data between districts and from K-12 to Higher Education. Exploratory analysis of a state-wide ‘K-20’ information system is needed, along with creation of a detailed plan to determine the optimal system architecture for sharing data among education-related entities. Critical to this is the development of student-level data security policies, procedures, and guidelines which adhere to both state and federal rules (such as FERPA – the Federal Education Rights Privacy Act).

Design for the Electronic Transcript Component

Attachment E contains technical documents and diagrams for the National Transcript Center. This shows how the schools will be connected.

With the awarding of this grant, CDE will adopt The National Transcript Center (NTC) in Austin, Texas, as the vendor of choice for implementing the Electronic Transcript Transfer System in Colorado. This system has been adopted by three state education agencies including Texas and has proven to be a solid, easy to implement solution. Colorado and Texas share a large population of highly mobile students. Electronic transmission of student records can help provide continuity of services for those students. Schools and districts cannot build an intrastate and interstate process for exchanging electronic student records on their own. There are too many differences in local student information systems, too many ways an education record can be exchanged (e.g., paper, fax, ASCII file, ANSI EDI X12 SPEEDE/EXPRESS, PESC XML, FASTER, etc.), and too many differences in the layout of data within the same electronic standard. A school or district today must choose among these standards and typically defer to paper for the majority of the transcripts they send and receive. NTC supports a variety of record formats including SPEEDE/EXPRESS EDI, PESC XML college transcript and PK-12 student record, SIF electronic student record, authenticated pdf documents or a paper document. This will accommodate the diverse capabilities within our K-12 school districts and, based on our

implementation strategy, build their capacity for future electronic data reporting. The Texas Education Agency published a study that estimated a 92.3% reduction in costs to exchange electronic transcripts compared to paper transcripts. This would net a savings in Colorado of over \$4.3 million over 3 years. Beyond the dollars, our interest is in reducing the time required for a new school to receive records and to begin delivery of appropriate educational services.

In order to create and exchange student transcripts electronically, schools and districts must implement all of the standards, infrastructure, systems, and processes described or implied in the “Map of Core Elements for Establishing a Statewide Longitudinal Data System.” This means simply that the creation and support of electronic transcript exchange systems by our CDE will encourage and enable schools and districts to meet the goals targeted by the Statewide Longitudinal Data Systems Grants.

CDE also realizes that by supporting schools and districts in the creation and exchange of electronic transcripts within Colorado, across states, and from secondary to postsecondary institutions, the Department addresses its own need to improve the quality and timeliness of the education data collected for state funding formulas, CDE’s public reports, No Child Left Behind’s adequate yearly progress determinations, and submissions to EDEN.

To begin the project, CDE will convene a 12-member LEAP Advisory Committee with the following representatives: 2 CDE staff members, 2 members each from small, medium, large, and rural school districts across the state; and 2 members from an institution of higher education. This group will help identify the core components for an electronic transcript including a common format for course work. Based on the committee’s decisions, CDE will produce a document to be circulated to all school districts and a select group of higher education institutions for comment. Comments will be considered by the committee and a final implementation document will be produced for dissemination during training. Following the production of this document, meetings will be held with student information system vendors to encourage them to develop acceptable extract formats to assist their districts.

As additional components for the Electronic Transcript project NTC will:

- In cooperation with the overall LEAP project manager, create a project management process that incorporates the use of MS Project plans with resources and dependencies detailed. This will include posting documents detailing all project activities on the Longitudinal Data Systems project website.
- Assist Colorado in developing plans for research activities
- Provide to the Institute of Education Sciences, NCES, EDEN, and other key entities insights and recommendations of how they can support the states in both electronic transcript exchange and the use of longitudinal records for data driven decision making
- Develop guidance for schools and districts in support of both intra-and interstate records exchange, FERPA, and other crucial issues
- Develop and deliver training for schools and districts, and for CDE staff
- Disseminate findings, insights, best practice, and other information to any state interested in electronic transcript exchange and the benefits derived from its use in areas such as data quality, cycle time, research, and standards implementation
- Conduct training

- “train the trainer” training to state
- training of school district staff
- training for institutions of higher education, as needed
- Train existing help desk staff on the electronic transcript solution.
- Register and authenticate users.
- Design a sampling of transcripts for research purposes; align process with the Data Access and Management Policies
- Design protocols for PK-12 schools to exchange transcripts with postsecondary institutions
- Implement exchanges with postsecondary institutions
- Evaluate the participation levels, user satisfaction, exchange efficiency, and accuracy of electronic exchanges
- Design and conduct research activities using data sampled from transcripts; disseminate findings to impact teaching and learning activities in the schools, and funding of projects by the state
- Design a long-term plan for sustaining the electronic exchange activities beyond the funding of this grant

LEAP INITIATIVE III - Rapid expansion of Local Data Analysis and Reporting

In 2005, CDE launched an ambitious effort to provide stakeholders with a window into its maturing data warehouse. Dubbed CEDAR (Colorado Education Data Analysis and Reporting), this 4-district pilot program quickly blossomed into a statewide information portal for authorized district assessment coordinators (DACs). Utilizing Cognos business intelligence software, this web-based system is establishing a foothold while rapidly gaining momentum and loyalty among Colorado school districts.

Wider access to data reporting/analysis

As CEDAR matures, local school districts are overwhelmingly asking for additional access to the system. Current license agreements with Cognos allow Colorado to provide a maximum of two userids per school district, with some additional logins available for authorized CDE personnel. As of 2007, Colorado has a total of 323 licenses of Cognos ReportNet (advanced reporting tool) and 225 licenses for the Cognos PowerPlay tool (data analysis cubes).

The ultimate goal is to provide secure information access down to a school principal and teacher classroom level. This entails significant support and infrastructure enhancements, which the initial system plan was fortunately designed to accommodate. User access expansion also involves additional license agreements with Cognos, significantly increasing CDE’s number of named userids to roll-out secure data access to approximately 1800 Colorado schools.

Based on a February 2007 Cost Summary Clarification worksheet from Cognos Corporation (attachment C), Colorado can expand access to 8,000 userids for a \$1 million dollar non-recurring license fee. This greatly increases access to interactive reports and customizable analysis data cubes for authorized education professionals.

With expanded access, CDE can fulfill multi-user access requests from schools and districts. Information and reports can be more readily accessed among education professionals, quickly reaching those who are in a position to utilize the information to improve instruction and make informed decisions. Expanded access also opens the door to a public information portal, providing the potential to supply comprehensive, aggregated snapshots of state-wide education information to parents, researchers, and statisticians.

With the acquisition of an 8,000 user license agreement for Cognos ReportNet and Cognos PowerPlay, CDE will plan a school-level roll-out in years 1 and 2, followed by analysis and requirements for a teacher-level roll-out in year 3. Going from the current district-level access to a school-level access plan, will result in a ten-fold increase in users and infrastructure (178 districts, 1700 schools). After year 2, CDE will be in a position to evaluate the challenges involved with supporting access for 1700 schools and better determine the potential needs, benefits, and system challenges associated with providing secure system access at a teacher level. Regardless, unlimited access to web-based information and analysis tools allows for flexibility in access and dissemination strategies.

It should also be stressed that this strategy provides wide access to sophisticated analysis tools, as well as the information. Providing data is a good first step, but providing the tools to analyze and craft that data into useful information is equally critical. Colorado (along with Georgia, Massachusetts, Arkansas, New York, and other states) believes that Cognos' web-based software tools provide the necessary end-user reporting and analysis capabilities to fully exploit complex longitudinal education data. CDE's successful implementation of CEDAR is a living proof-of-concept, and Colorado looks forward to building on the current foundation by providing wider access to detailed information and on-line analysis functions.

Professional Development/Training Opportunities

A critical companion of expanded access to local data analysis and reporting is professional development and training. For Colorado's CEDAR system, training thus far has primarily focused on basic use of the web tool. Future professional development needs to cater to a wider audience and focus on how to *analyze* the data.

In CDE's experience, hands-on training is the most effective method of instructing new users in the use of a web-based reporting and analysis tool like the Cognos-based CEDAR system. Live instruction in a classroom computer lab setting allows participants to learn by doing, as well as learn from each other. The difficulty of this approach is logistical. To date, CDE has conducted 25 regional training sessions in all corners of the state. It takes a fair amount of effort to develop training materials, coordinate and travel to sessions, and finally provide instruction to classes of about 20 participants.

As the on-line CEDAR data analysis and reporting system continues to mature and grow, it is imperative that training and professional development evolves alongside. Not only must training accommodate a ten-fold expansion of users, but professional development must expand beyond merely 'how to use the tool', into 'how to use the information'. Advanced and expert level training sessions must also be offered, encouraging and motivating system users to create their

own reports. And lastly, the potential use of on-line webinars, tutorials, or recorded DVD training sessions should be explored and evaluated as supplemental training delivery mechanisms.

Estimated costs for training and professional development efforts associated with rapid user access expansion of on-line reporting/analysis via CEDAR:

CEDAR Training	Year 1	Year 2	Year 3	PROJECT TOTAL
Training Material Development	\$75,000			
Single Region 'Pilot' Training Program (approx. 200 schools)	\$50,000			
Evaluation and Refinements		\$25,000		
Multi-Region Training Sessions (1500+ schools)		\$100,000	\$100,000	
Webinar-based training		\$20,000	\$30,000	
TOTAL	\$125,000	\$145,000	\$130,000	\$400,000

Technical Data Standards

LEAP is based upon national technical and data standards that support Colorado's commitment to full participation in the Education Data Exchange Network (EDEN), Common Core of Data (CCD), and other requirements under No Child Left Behind.

Additionally, Colorado uses the following voluntary standards and guidelines, established or identified by the National Center for Education Statistics (NCES):

1. Data element definitions in the NCES data handbooks:
 - a. NCES Handbooks Online, <http://nces.ed.gov/programs/handbook/>; and
 - b. Financial Accounting for Local and State School Systems: 2003 Edition, <http://nces.ed.gov/pubs2004/h2r2/>;
2. Schools Interoperability Framework (SIF) standards (http://www.sifinfo.org/tool_kit.asp);
3. Recommendation 7 (Integrating Data Systems) of the U.S. Department of Education's National Educational Technology Plan (<http://www.ed.gov/technology/plan>);
4. Data confidentiality guide of the National Forum on Education (*Forum Guide to Protecting the Privacy of Student Information: State and Local Education Agencies* (2004), http://nces.ed.gov/forum/pub_2004330.asp);
5. Technology security standards of the National Forum on Education (*Weaving a Secure Web Around Education: A Guide to Technology Standards and Security* (2003), http://nces.ed.gov/forum/pub_2003381.asp); and

Project Personnel

The Colorado Department of Education's Information Management Services unit (IMS) provides technical systems design, development, maintenance, and support. Also, the recently formed Longitudinal Data Systems unit specializes in the analysis and use of longitudinal student data. This unit will work closely with contracted resources to enhance and deliver effective longitudinal data system instruction and professional development. Actionable and immediate use of longitudinal information will result, fostering data-driven decision making to continuously improve K-12 education in Colorado

Other units within CDE involved in this grant proposal include the Unit of Student Assessment, and Data & Research. A Colorado-legislated Longitudinal Technical Advisory Committee was formed in 2004, and continues to provide guidance and models regarding longitudinal data analysis.

Key CDE Personnel:

Project Sponsors

William Moloney, Commissioner, (b)(4) of time devoted to project
Karen Stroup, Chief of Staff, Assistant Commissioner, (b)(4)

Project Director

Dianne Kress, Chief Information Officer, (b)(4)

Longitudinal Data Systems

Dwayne Schmitz, Director, Longitudinal Data Systems, (b)(4)
Erin O'Leary, Senior Consultant, Longitudinal Data Systems, (b)(4)
Mike Wilcox, Senior Consultant, Longitudinal Data Systems, (b)(4)

Systems Architecture

Jerry Taylor, Programming Supervisor, Transcripts Project Coordinator
(LEAP Initiative II) (b)(4)

Data Warehouse

Daniel Domagala, Data Warehouse Supervisor, ED Facts Coordinator, Warehouse
Expansion and Reporting Project Coordinator (LEAP Initiative I, III) (b)(4)
Manilal Bhoraniya (contractor hired by CDE), Database modeling and
architecture, (b)(4)

Network and Server Administration

Chris Edmundson, Information Systems, (b)(4)

Database Administration

Abdisalam Aimad, Certified Oracle Database Administrator, (b)(4)

Business Intelligence

Dean Bixler, Cognos report developer, CEDAR administrator, (b)(4)
Boris Slavkin, Cognos administrator and developer, (b)(4)

Data Extraction-Transformation-Loading

Peter McCaffree, Informatica administrator and developer, ED Facts administrator, (b)(4)

Key Contracted Personnel:

Transcript Solution Team (LEAP Initiative II)

Glynn D. Ligon, Ph.D., President and Chief Executive Officer, ESP Solutions Group, (b)(4)

Barbara S. Clements, Ph.D., Chief Standards Officer, National Transcript Center

Vice President, ESP Solutions Group, (b)(4)

Bob Fulton, Project Lead, ESP Solutions Group, (b)(4)

Project Management

Assigned Resource, Overall Project Management (All Initiatives), Colorado State Office of Information Technology, (b)(4)

Resources

The CDE has the infrastructure to support the proposed Initiative Projects. The agency maintains a secure computer room with controlled access and test environment servers to physically isolate and test development projects separately from the production environment. The CDE has peripheral facilities and equipment to support the Longitudinal Grant development project including separate rooms for housing contracting personnel with network access work stations and printers, and adequate conference rooms available for staff and status meetings.

To help support the longitudinal initiatives, the CDE developed a student identifier system in 2002 that is integrated into all systems that collect data at the student level such as Student October, EOY, CSAP (Colorado Student Assessment Program), and Special Education. Colorado's student identifier system (RITS) was noted by a federal survey presented at the 2005 NCES conference as one of two states having a proactive system that helps districts eliminate student duplication issues by testing for invalid identifiers during applicable data collections, by running post collection processes to identify and reconcile duplicates caused by student migration between districts, and by maintaining a dedicated Case Management Team. It was noted that this effort would be mandatory by all states, in some form, in order for their long term longitudinal data analysis to be meaningful.

The Colorado Accountability Data Warehouse developed with state funds in 2000 to support a legislated School Accountability Report has continued to evolve using state funding to support all aspects of NCLB including Adequate Yearly Progress calculations and determinations. A Java web interface system was also developed to support final AYP determinations and appeals. The COGNOS BI tool was purchased using state funds in 2004 to afford districts the opportunity to review and analyze their student assessment data using Cubes and a variety of reports. For small to medium sized districts with less funding available for analytical tools, the COGNOS warehouse interface, CEDAR (Colorado Education Data Analysis and Reporting), has afforded

them a state supported web based tool for analysis. Initiative III will expand this capability as noted in the Project Narrative Design Section. The Accountability Data Warehouse has also been maintained to accommodate the automatic extraction of EDEN data. This has encompassed significant research to identify data sources within the CDE and to plan for their incorporation into the warehouse making it the most common repository for the EDEN data extractions.

Initiative I will further promote the automation of the federal reporting requirements. Integrated with all aspects of the LEAP Initiatives is the refinement of Colorado's existing Data Dictionary which was created using state funds. Although a fully functional data base and supportive interface was created during the initial project, it was not comprehensive enough to become fully operational. Initiative I would build on this initial work and a currently in-development Java web interface system to map all collected data elements from the source collection to the warehouse repository to federal reporting requirements as detailed in the Design Section under Creation of a Comprehensive Data Dictionary.

Management Plan

The state of Colorado has implemented a common project methodology framework which all state agencies are obligated to follow for business critical or high budget projects. This common methodology comprises the common phases associated with best practice project management. The CDE will follow this methodology as outlined below to assure success of the proposed initiatives.

Initiating Phase:

Upon award of the grant, the CDE will acquire a resource to assist with creation of an Request For Proposal detailing the three proposed initiatives, project scope, and methodology guidelines. The selected vendor will oversee the three year project in conjunction with the CDE CIO, CDE Project Supervisors, and LEAP Governance Committee referenced in the Policy/Implementation Component in the Needs Section above. A concurrent RFP will also be initiated to select an independent third-party IV&V (Independent Verification and Validation) vendor to monitor and assess the effectiveness of the individual and combined initiatives as projects progress and after their completion in the following areas: number of people served, quality of services and products, customer satisfaction, extent to which new skills and tools are used, degree of change in using data to drive decision making, efficiency and effectiveness of the design, unintended consequences, and the overall impact and success the initiatives have in moving toward the development and implementation of a comprehensive Longitudinal Data System (LDS).

As indicated in Appendix A, Timeline:

Initiative I comprises three consecutive one year sub-projects: Longitudinal Analysis and Graduation/Dropouts in year 1; Migrant/Homeless Data and Teacher Statistics in year 2; Special Education in year 3.

Initiative II and Initiative III comprise single year projects that will run simultaneous to Initiative I projects.

Although initiating phases have been completed in preparation for this application including Project Scaling, Statement of Work, Risk consideration, and basic Resource Planning, the RFP will require an independent SOW from applying vendors to assure their ability to complete the project scope within budget and proposed timelines.

Planning Phase:

The selected vendor will be required to hold independent interview sessions with CDE program staff and applicable Colorado education stakeholders in order to produce a Work Breakdown Structure (WBS) detailing the tasks required for all Initiative Projects. Deliverables from this work will include independent Project Plans with assigned vendor and CDE resources for each Initiative Project maintained in MS Project or Platinum PM with Phased Milestones tied to a Vendor Payment Schedule dependent on successful milestone completion (the project plan will be signed off by the vendor and CDE project management teams); scheduled recurring Status Meetings with a formal Status Report format, detailed Risk Evaluation Forms and Log; a Quality Control Plan including a formal Change Request Form, Request Log, and identification of a Change Request Approval Committee. A preliminary test plan will be created during planning that will include module and milestone validation; final system testing will be refined as a project development task.

Executing/Controlling:

A Kick Off meeting will be held for each Initiative Project in order to establish a common understanding of the scope of work and detailed project expectations such as daily work schedules and location, Status Meeting schedules, etc. Scheduled work progress on active Initiative Projects will be monitored via regular scheduled Status Meetings. Project schedule deviations, resource issues, and any identified risks will be discussed and remediation plans initiated during the scheduled Status Meetings. Milestone success is monitored during this phase and vendor payments will be approved based on CDE project management and business owner review and signoff.

Change requests will also be addressed initially in these meetings to assess scope, priority, and impact on the schedule. Approval may occur for minor requests, but those needing more definition or that impact the project schedule will be discussed in detail in a separate meeting. Before final project implementation, full system testing will be completed and signed off by CDE project management and the primary business owner.

Project Close Out:

This will be a final review meeting to assess lessons learned and how they may be applied to future or on-going Initiative Projects. Since the same vendor will be managing all Initiative Projects for this grant, these meeting will be important for improving performance on the overall project.

SECTION G: RESUMES

DIANNE E. KRESS

(b)(6)

e-mail – dianne.kress@cde.state.co.us

PROFESSIONAL ACCOMPLISHMENTS

Over 25 years experience in information technology and education.

Leadership and Staff Management

- Hired and supervised staff which has included both technical and business resources for the past 16 years.
- Acted as Project Manager on numerous education-related projects including: development of Colorado's Education Data Warehouse; development of Colorado's web-enabled data collection systems; development of Colorado's State-Assigned Student Identifier System; development of Colorado School Accountability Reports which rate each school in the state and provides relevant information on the individual schools; implementation of a Business Intelligence solution for the Department.
- Managed multi-million dollar budgets.
- Department representative on state and local committees. Colorado Portfolio Management Committee; Colorado CIO Forum; Education Data Advisory Committee

PROFESSIONAL EXPERIENCE

Colorado Department of Education, Denver, Colorado 1996-Present
Chief Information Officer

Functioning as the Department of Education's chief information officer by developing strategic technology plans; setting and enforcing the development of policies and procedures; ensuring that all strategic and tactical initiatives promote the agency's information technology vision; setting standards in computing, networking, and security;

establishing system and information architectures; managing, supervising and overseeing all computer related activities for the Department of Education.

CIGNA Healthcare, Denver, Colorado 1988-1996
Regional Information Systems Manager

Responsible for planning, organizing, directing and monitoring the information services function with the region in order to effectively support the delivery of healthcare. Provided the healthplan's management with current, accurate data for their decision making process in seven states.

AI Cohen Construction Company, Denver, Colorado 1984-1987
Information Systems Administrator

Responsible for long and short term data processing planning, staff management, budgeting, training, system's design, software and hardware evaluation and problem resolution.

Honeywell Test Instruments Division, Littleton, Colorado 1984
Programmer/Analyst

Worked on the Manufacturing Systems Team developing and maintaining software.

Monolithic Systems Corporation, Englewood, Colorado 1982-1984
Corporate Training Administrator

Developed and conducted classes for all levels of employees on system use; evaluated software; developed user documentation; investigated and resolved user problems.

Arapahoe County District 6, Littleton, Colorado 1968-1974
Teacher/Gifted Education 1978-1980

Developed and implemented curriculum for regular classroom and gifted children, conducted teacher training.

Education

Graduate Certificate in Computer Science, University of Denver
B.S. Education, University of Colorado - Boulder

Dwayne D. Schmitz

(b)(6)

Phone: (b)(6)

Email: (b)(6)

Email2: dschmitz@psdschools.org

EDUCATION

- Spring 2007 **Ph.D. in Applied Statistics and Research Methods**
University of Northern Colorado, Greeley, CO
- May 1992 **Master of Business Administration, Concentration: Finance**
New Mexico State University, Las Cruces, NM
- July 1990 **Bachelor of Science in Secondary Education**
New Mexico State University, Las Cruces, NM

PROFESSIONAL EVALUATION AND CONSULTATION POSITIONS AND PROJECTS

Assistant Director, Teacher Education-Evaluation and Assurance, August 2003 to February 2005
Chancellors Office-California State University, Sacramento, CA
Duties included: Consulted with managers of sensitive student data systems to foster sustainable partnerships and obtain updates to existing data. Maintained the resulting data set that contained over 200 variables on more than 125,000 students and their teachers. Analyzed multiple alternative models for isolating the effects of teacher preparation on student achievement, including prominent use of various hierarchical linear models. Provided technical support to researchers from individual campuses within the CSU. Prepared and presented, in both written and oral formats, formative and summative reports to internal and external stakeholders. Analyzed all systemwide and campus specific data for the CSU Spring 2004 Statewide Evaluation of Teacher Education Programs. Participated in preparing final reports for the 23 deans of education and the Chancellor. Provided significant contributions in obtaining a one year research grant funded by the U.S. Department of Education in excess of \$500,000.

Evaluation Consultant, February 2003 to May 2003
Greeley Central High School, Greeley, CO
Duties included: Worked with the principal, parent groups, and other teachers to administer school climate assessments. Analyzed and reported results to various stakeholders.

Special Contract Statistical Consultant, April 2002 to September 2002
Colorado Department of Education - Colorado Commission on Higher Education, Denver, CO
Duties included: Analyzed the results of the online administration of the *Colorado First Year Teacher Survey*, which provides data for the Colorado Teacher Education Performance Model.

Statistical Consultant, January 2003 to May 2003
University of Northern Colorado - Research Consulting Lab, Greeley, CO
Duties included: Consulted on a diverse array of research projects across a variety of disciplines and topics.

Statistical Consultant, January 2000 to May 2000

University of Northern Colorado-Center for Human Enrichment (CHE), Greeley, CO

Duties included: Co-investigator of a research study designed to assess the reliability and validity of the *Noel-Levitz College Student Inventory* for a predominantly first generation, low income, and ethnic minority college student population.

Curriculum Evaluation, September 2000 to December 2000

Youth Development, Inc., Albuquerque, NM

Duties included: Evaluated a new mathematics curriculum used on at-risk youth *Pre-Algebra through Entrepreneurship*.

Program Evaluation, September 1999 to December 1999

University of Northern Colorado, Youth Leadership Program, Greeley, CO

Duties included: Conducted a case study of a youth outdoor recreation facilitation team.

TEACHING EXPERIENCE

K-12

Mathematics and Business Secondary School Teacher

Poudre School District RE-1, Fort Collins, CO, August 2005 to Present

Weld County District Six, Greeley, CO, August 1998 to May 2004

Project Succeed, Youth Development Incorporated, Albuquerque, NM, September 1994 to August 1996

Mathematics Curriculum and Instruction Supervisor:

Project Succeed, Youth Development, Inc., Albuquerque, NM, August 1996 to July 1998

Post-secondary

Invited Lecture-Applied Statistics and Research Methods Department

University of Northern Colorado, Greeley, CO, Fall 2003

Teaching Assistant-Mathematics Department

University of Northern Colorado, Greeley, CO, August 2002 to December 2002

Adjunct Faculty Community College -Mathematics Department

AIMS Community College, Greeley, CO, August 1998 to May 1999

Albuquerque Technical Vocational Institute, Albuquerque, NM, September 1997 to July 1998

PRESENTATIONS

Schmitz, D. (April, 2007). An Empirical Sensitivity Analysis of Value-added Teachers' Effect Estimates to Hierarchical Linear Model Parameterizations. Paper to be presented at the annual meeting of the American Educational Research Association in Chicago, IL.

Schmitz, D. and Wright, D. (August, 2004). CSU Teacher Preparation and California Student Academic Achievement: A California State University Partnership. Long Beach, CA.

Schmitz, D. and Raymond, K. (February, 2003). The Colorado First Year Teacher Survey. Invited seminar for the Applied Statistics and Research Methods Colloquium at the University of Northern Colorado, Greeley, CO.

Hutchinson, S., Raymond, K., and Schmitz, D. (January, 2003). Colorado First Year Teacher Survey: Summary of Results. Report presented at the January meeting of the Colorado Commission of Higher Education.

PUBLICATIONS

Non-juried and Technical Reports

Hutchinson, S., Raymond, K., and Schmitz, D. (2002). Colorado First Year Teacher Survey Technical Report. Report given to the Colorado Commission on Higher Education.

Raymond, K., and Schmitz, D. (2000). Predictive Validity of the Noel-Lewitz College Student Inventory for Center for Human Enrichment. University of Northern Colorado, Greeley.

Schmitz, D. (1997). Effective Classroom Management in Alternative Schools. University of New Mexico, Albuquerque, NM.

Schmitz, D. (1995). Pre-algebra through Entrepreneurship. Youth Development Inc, Albuquerque, NM.

HONORS AND AWARDS

Recognized in *"Who's Who Among America's Teachers"* 1998, 2004

Gold Star District 6 Teaching Excellence Award, 2001

NASDAQ/National Council on Economic Education Teaching Award-Regional, 2000

Freedoms Foundation Award for Excellence in Private Enterprise Education, 1995

Financial Executive Institute Excellence Award, 1992

Member *Beta Gamma Sigma* National Business Honorary Society

Member *Sigma Iota Epsilon* National Management Honorary Society

COMMUNITY SERVICE/VOLUNTEER WORK

GRE Volunteer Math instructor, May 2003 to June 2003

University of Northern Colorado, Ronald E. McNair Post-Baccalaureate Scholarship Program, Greeley, CO

At-risk Youth Wilderness Instructor, various dates 1992-1998

Mountain Adventures, Inc., Albuquerque, NM.

REFERENCES AVAILABLE UPON REQUEST

Dwayne D. Schmitz

Addendum: Recent Employment History:

EMPLOYMENT HISTORY				
EMPLOYER/Kind of Business: Poudre School District / Public Education		Your Title: Mathematics Teacher		DATES OF EMPLOYMENT
Address 2407 LaPorte Avenue, Fort Collins, CO 80521		From: Month August	Year 2005	
Supervisor Name Brian Williams	Title: Principal	Phone (970) 482-6332	To: Month Present	Year 2007
Duties: (List major duties and responsibilities relevant to the job for which applying; be specific)		Hour Per Week 40	Monthly Salary: (b)(6)	
Instructor of secondary mathematics. My experiences as a public school educator over the past 13 years have provided me with valuable insights into the data generating environment related to modeling student growth. These insights are critical for analysts who seek to statistically model real phenomenon and make meaningful interpretations of results.		Number of Employees Supervised: 0	# of Professional Staff Supervised: 0	# of Non-Professional Staff Supervised: 0
Reason for leaving or seeking other employment: Graduation with Ph.D. in Applied Statistics. Desire to apply my knowledge of teaching effectiveness and statistics beyond the classroom.				
EMPLOYER/Kind of Business:				

ERIN LEE O'LEARY

EDUCATION

Florida State University College of Law Tallahassee, FL
Juris Doctor, December 2006

University of Denver Sturm College of Law Denver, CO
Visiting Student- Fall 2006

Activities: Law Students' Counsel- Chair
Guardian ad Litem
Law School Golf Association

University of North Carolina Chapel Hill, NC
Bachelor of Arts, Economics, May 2004
Bachelor of Arts, English, May 2004

Honors: Louise Blackman Tollefson Scholar
Dean's List (2003, 2004)

Activities: Resident Hall Association, Vice President of Area Halls
Association of English Majors

EXPERIENCE

May 06-Aug. 06 Tallahassee, FL
Board of Governors- State University System of Florida

Graduate Assistant

Assist Education Policy and Research division in quantitative and qualitative research projects related to university system budgets, facilities, enrollments and personnel. Coordinate and assist in collection and documentation of data using MS Excel and PowerPoint. Design and construct spreadsheets and charts to project budget and space allowances as well as completion dates of university construction projects. Conduct research using online empirical databases, document and analyze data and produce final reports.

Oct. 02 - May 04 Chapel Hill, NC
Sheps Center for Health Services Research

Research Assistant

- Aging, Disability and Long-Term Care Project

Collected, analyzed and documented data using SAS, MS Access and Acti-ware software. Data was used to draw a correlation between light exposure and sleep patterns in dementia patients.

- End-of-Life Care Project

Conducted interviews with patients, caregivers and family members regarding end-of-life care in nursing homes. Designed and constructed the interactive MS Access interview system/database used during the interview process.

Summer 2004, 2005 **C.B. Richard Ellis** Boca Raton, FL
Summer Intern
Performed market research and writing. Edited market and listing portfolios. Assisted senior agents in updating and editing investors and listings in an REA database.

Nov. 05 - Aug. 06 **Florida Guardian Ad Litem** Tallahassee, FL
Guardian Ad Litem
Volunteer as the legal advocate for five young children that have been removed from an at-risk household. Participate in parent case plans, conduct home studies, and ensure that the children's temporary and permanent placement is safe.

Michael D. Wilcox

Summary of Qualifications

- Highly skilled computer business analyst with excellent project development skills.
- Exceptional interpersonal skills and broad experience working with clients from diverse backgrounds.
- Strong technical writing and public presentation skills.
- Proficient in RUP and UML, RFP process and test script writing.
- Programming skills/proficiencies include SQL, DB2, Oracle Discoverer, Visual Basic, Java, JSP and HTML.
- Highly proficient in computer applications including Microsoft Windows, Microsoft Word, Excel, Access, FrontPage, MS Project, MS PowerPoint, Camtasia and Visio.

Experience

2002-Present Colorado Department of Education Denver, CO

Record Integration Tracking System (RITS) Senior Consultant

- Involved in all aspects of the development, implementation and maintenance of 3-tiered data system for identifying and tracking student identifiers for 750,000+ public K-12 students statewide under strict deadline.
- Developed system requirements through stakeholder consensus, by acting as a liaison with Information Management Systems Unit, Data Collection and Research Department, Student Assessment Unit, and Colorado School Districts, writing design specifications, and consulting with computer programming contractor to oversee design and implementation of system.
- Develop and deliver training modules for school district data and assessment staff statewide, using multiple software programs including Microsoft Excel, PowerPoint and Adobe Acrobat. Conduct biannual on-site training seminars statewide.
- Develop business rules, testing scripts and create user manuals in a variety of formats.
- Work with privacy consultant and state Attorney General office to ensure system compliance with state and federal privacy laws.
- Participated in the testing and implementation of new data system and providing start-up and ongoing daily technical assistance to system users in 178 school districts. Provide troubleshooting and investigate system errors. Provide recommendations for improving accuracy of data submission and collection. Investigate and provide written reports on areas of system improvements.
- Develop and maintain CDE website for Student Identifier Management Unit

using Microsoft FrontPage.

2001-2002 Career Connection, Inc. Boulder, CO

Systems Support/Contract Employee Supervisor

- Served as a contract employee for the support of operating and data systems at IBM.
- Level II support supervisor for technical assistance calls escalated from help desk. Provided technical assistance and troubleshooting for users of various IBM systems.
- Developed Visual Basic programs and Access databases to collect and analyze call center statistics.
- Participated in the screening, interviewing, and hiring of contract personnel. Worked as a liaison between CCI and IBM staff.
- Participated in senior staff meetings to report call center statistics for CCI contract employees.
- Performed supervisory functions including quality assurance, payroll processing, verification and monitoring of user service calls for 13 CCI employees.

1996-2000 GE Capital Flood Services Lakewood, CO

Cyberflood Support Team Lead

- Developed client Web Interface for Cyberflood; flood determination portal used for mortgage purposes. Provided client/user system support by researching causes of user reported system failures or problems and developing solutions.
- Analyzed data and system operation to continually improve system and business processes.
- Created an automatic email customer notification process to alert Cyberflood users of system downtimes and messages; reduced the cost/time of phone notification by 60%.
- Created an automatic Access database to notify Sales staff of clients who had not used the system in over a year to generate a reminder call list.
- Supervised two man Cyberflood team. Responsible for shift scheduling and granting vacation time.

1988-1992 United States Navy Norfolk, VA

Intelligence Specialist Petty Officer Second Class

- Analyzed satellite imagery for mission planning during the Gulf War for the US Navy.
- Created near real-time reports for dissemination to deployed units for use in mission planning.
- Gave intelligence briefs to senior command staff on a daily basis.
- Supervised cell of four analysts.

Education

2000-2001 Information Technology Institute Denver, CO

- Certificate of Applied Information Technology

1992-1996 University of Colorado at Boulder Boulder, CO

- B.S., Journalism.
- Emphasis in Newspaper/Editorial.

Gerald W. Taylor

(b)(6)

E-mail – taylor_j@cde.state.co.us

Career Summary

IT supervision, project management, systems analysis, and programming with proven customer satisfaction in the development and maintenance of complex computer systems.

Professional Experience Full Time / Contract

- 11/97-Present **Colorado Department of Education, Denver, Colorado**
IMS Programmer/Analyst Supervisor
- Responsible for six full time programmers and contract help as needed.
 - Technical project lead for Y2K remediation including supervision of two contractors, full IT staff, project tracking using Platinum PM, and primary technical interface with the states Y2K committee liaison.
 - Primary technical interface for a state mandated Y2K follow-on IV&V audit. The department received one of the highest state scores.
 - Instituted a Business/Feasibility Study process for all development projects and associated project signoff procedures.
 - Supervise development projects for conversion of various web enabled Data Exchange systems including Finance, HR, Student October, EOY, School Safety/Discipline, CSAP Labels, AYP web interface, Adult Education, and Licensure.
 - CDE technical project lead for the state Accountability Data Warehouse and School Accountability Report. Participated in RFP creation and contractor selection. Worked directly with the CDE project manager (IMS Director) and the contractor project/technical project leads, to coordinate the efforts of 14 warehouse/web development contractors and CDE staff during the year long project.
 - Primary technical contact for the state mandated yearly audits of the entire School Accountability Report (SAR) process including data collections, ETL processing, warehouse SAR processing, and SAR validation and distribution.
 - CDE technical project lead for the conversion from Oracle Warehouse Builder to Informatica for Accountability Data Warehouse ETL processing.
 - Participated in selecting COGNOS as the Accountability Data Warehouse BI tool and created an IFB for its purchase.
 - Maintain the legacy State Equal and Auditors System that distribute \$2.7 billion in state aid yearly to Colorado school districts.
 - Ongoing evaluation and supervision for conversion of remaining legacy systems to an Oracle environment and new development as required by state and federal legislation.
- 05/95-10/97 **Chef America, Inc., Englewood, Colorado**
Principal Programmer/Analyst
Supported HP3000 COBOLII/85 AMAPS manufacturing systems: AR, AP, Sales, Inventory, and system operations/management functions.
Member of technical team that converted all company business to a relational database manufacturing system called QAD.
- 05/94-05/95 **Rocky Mountain Health Care Corporation, Denver, Colorado**
Systems Analyst / Programmer

Converted an HP3000 COBOL claims system to COB85XL, and upgraded on-line processing to mandated government standards.

- 05/93-05/94 **Archdioceses of Denver**, Denver, Colorado
Contract Programmer/Analyst
Create an HP3000 reports subsystem in COB85XL used in a new accounts receivable, inventory, and sales tracking system. Corrected online and batch processing problems identified during system start-up.
- 07/93-12/93 **U.S. WEST**, Loveland, Colorado
Contract Programmer/Analyst
Revised an HP3000 invoicing, A/R, and revenue system using COB85XL, SUPRTOOL, QEDIT, and MPEX. Consolidated and converted POWERHOUSE dictionaries to a PDL database format.
- 1983 - 1993 **Martin Marietta Information Systems**, Englewood, Colorado
Principle Programmer/Analyst, EBI Clearance
Hardware: HP3000/900 MPE/XL, IBM 4341, PCs
Languages: COBOL/II, TRANSACT, EASYTRIEVE, JCL
Utilities: VIEW, IMAGE, MPEX, KSAM, SUPRTOOL, OMNIDEX.
Analyzed, designed, programmed, and administered various classified and non-classified accounting and Overhead Budget systems including Contract Billing, Travel/Petty Cash, Billing Book, Vendor Monitoring, Inventory Management.
- 1983 **Kaiser Foundation Health Plan**, Denver, Colorado
HP3000 COBOL Programmer/Analyst
Enhanced and maintained various systems including Patient Appointments, Claims, and In-patient History systems using VIEW, IMAGE, QUERY, KSAM, and DEL.
- 1982 **Worldwide Energy Corporation**, Denver, Colorado
HP3000 COBOL/QUIZ Programmer
Enhanced and maintained various systems including GL, JIB, and Lease Records using VIEW, IMAGE, QUERY, and SUPRTOOL.
- 1981 **State Department of Highways**, Denver, Colorado
HP3000 COBOL/RPGII Programmer
Designed and programmed a Central Reproduction Billings system using VIEW, IMAGE, QUERY, and DEL.
- 1973 - 1981 **Xerox Corporation**, Englewood, Colorado
Technical Representative.
- Education** **Parks College**, Denver, Colorado
1981 attend a one year night course in data processing.
- Colorado State University**, Fort Collins, Colorado
1973 received a B.S. in Electrical Engineering.

Daniel Domagala

Office: (303) 866-6961

SUMMARY

Information Technology Professional with twenty years of progressive experience. Recent specialization in Data Warehouse design and architecture. Other expertise includes systems analysis and design, applications development, data modeling, system configuration and tuning, and database administration.

BUSINESS EXPERIENCE

Colorado Department of Education Denver, Colorado 2004-present

Data Warehouse/Database Supervisor, Information Management Services

- Supervise and direct data warehouse team, guiding ETL, data validation, reporting, and administrative tasks. Key task is directing the annual effort of producing and distributing statewide School Accountability Reports for all public K-12 schools in Colorado, accommodating legislative reporting mandates and focus group enhancement requests.
- Worked with State and Federal personnel to incorporate data elements for tracking progress towards the Federal No Child Left Behind (NCLB) act. Enhanced and extended the CDE Data Warehouse to accommodate and report annual yearly progress towards meeting the lofty goals of this important education legislation.
- Implemented Cognos to provide a query window into the data warehouse and allow detailed analysis via customized reports and cubes. Replaced antiquated OracleReports and Discoverer infrastructure with a web-based Cognos solution, to better service the data needs of education units and local school districts.

Cendant/Trip Network, Inc. (cheaptickets.com, trip.com) Englewood, Colorado 2000-2004

Sr. Data Warehouse Architect/Warehouse Technical Lead, Business Intelligence

- Conceptualized, designed, and led development of an enterprise data warehouse from the ground up, for on-line travel agency Trip.com, integrating customer profile data with travel transactions, financial records and website click-stream data.
- Integrated a second on-line agency (cheaptickets.com) into existing infrastructure, accommodating 25 million new customers and handling a ten-fold increase in search and purchase transactions, while also guiding expansion of Business Intelligence group from 2 members to 11.
- Introduced Brio as a data delivery tool, providing marketing, finance, and business analysts an effective window into the warehouse data. Recruited and guided report developers to meet increasing demands for business intelligence.
- Constructed, implemented, and eventually led the development of hundreds of data Extraction-Transformation-Load (ETL) routines using DataStage and Informatica. Created ETL standards and automated nightly warehouse data processing, including leading and scheduling work of three ETL developers.

- Continuously evolved and tailored the enterprise data warehouse to keep pace with shifting business requests, new data sources and targets, and changing management teams. A flexible architecture built on conformed dimensions and single-grain facts provided a solid foundation capable of growing with the business.

Jato Communications Denver, Colorado

Feb 2000-Oct 2000

Data Architect, Operations Support Systems

- Designed and deployed enterprise-wide data warehouse, integrating data from disparate telecommunications systems and databases into a centralized repository. Incorporated dimensional modeling techniques, Sun hardware, Oracle database technology, and Oracle's Warehouse Builder software.
- Administered Oracle database systems including billing, order management, and data warehousing. Responsible for defining/implementing database hardware and software requirements related to purchased and developed applications.

IHS Energy Group (formerly Petroleum Information/Dwights) Denver, Colorado 1994-2000

Database Analyst, worldwide products

- Designed world's largest independent oil & gas data warehouse, effectively handling information on 3.2 million active and historic wells along with 2.8 million producing properties.
- Created data structures, validation routines, and relational dependencies to house massive amounts of oil and gas related exploration and production data.
- Designed and developed a commercial Internet-based application to browse and report oil and gas information. Devised a de-normalized dimensional-based model to improve data query performance and simplify program code for this and other database applications.
- Partnered with international offices and external organizations (such as the Public Petroleum Data Model association) to standardize and streamline data storage and retrieval, ultimately benefiting the entire oil and gas industry.

CONOCO INC., Houston, Texas

1989-1994

Systems Analyst, Upstream Business Solutions

- Led development and implementation of million-dollar global property information system designed to guide executive management in portfolio investment decisions. Managed implementation phase of project, directing responsibilities for team members.
- Implemented a customized dual-language financial system in Moscow for a \$375 million Russian joint venture project. The system was a key component in this pioneering Russian/American petroleum development partnership. Trained Russian co-workers in the use and maintenance of the system.
- Installed and configured Oracle/UNIX based database in Oklahoma City division office, providing client/server application access for 200 employees. Teamed with local staff to provide dependable database administration and application support.

HEWLETT-PACKARD, Fort Collins, Colorado

1988-1989

Programmer Analyst - Intern, Information Systems Department

- Provided Local Area Network (LAN) Administration to PC users throughout 2,000 user complex, effectively tying together PC workstations to allow sharing of software tools.

- CITY OF FORT COLLINS**, Fort Collins, Colorado 1988
Computer Operator, Information and Communications Systems Department
- Operated and monitored hardware in the city computer center, processing billing statements, archiving critical government data, and assisting analysts with troubleshooting and maintenance.

EDUCATION

- M.B.A.** University of Colorado at Denver 1999
B.Sc. Computer Information Systems, Colorado State University 1989

Recent Professional Training includes:

- Cognos ReportNet, Cognos Coporation
- Informatica Boot-camp, Core Integration Partners
- Data Warehouse World Conference, The Data Warehouse Institute
- Oracle Web Application Server, Oracle Corporation
- Oracle Database Administration, SageLogix/Oracle Corporation
- Introduction and Advanced UNIX, Miacco Corporation
- Oracle PL/SQL, Performance Tuning, TUSC, Inc.

Active member of Data Management Association (DAMA), Denver chapter
 Member of The Data Warehouse Institute (TDWI)

EXPERTISE

Relational Databases: Oracle, Sybase, SQLServer, DB2
 Modeling Tools: QDesigner/PowerDesigner, ERWin, Oracle Designer2000
 ETL: Informatica PowerCenter, Assential DataStage, Oracle SQLLoader
 Reporting Tools: Cognos, Brio, Crystal Reports
 Software: Oracle Tools, Novell Netware, PowerBuilder, IDEAS
 Hardware: PC Workstations/Servers, Sun, IBM Mainframes, HP-3000, UNISYS 80
 Operating Systems: UNIX, OS/2, Windows
 Languages: SQL, PL/SQL, Java, HTML, XML, C++, COBOL, FORTRAN, BASIC, SAS, JCL

References available upon request

Manilal Bhoraniya

Sr. Consultant, BearingPoint, Inc

Manilal Bhoraniya is a senior consultant in the Cross Industry Solutions Group at BearingPoint. He has more than 14 years of experience covering Oracle DBA, Database design, software design and development and large data warehouse implementation. He has been involved in design, development, testing and implementation of custom business application using Oracle tools. He has worked as Oracle Database Administrator for more than 6 years. He also worked as Oracle Application Administrator. He is knowledgeable in writing custom design Interfaces for Oracle Application using Developer-2000. He also worked in Development of Web application using PERL and HTML. He worked on large Data Warehouse project using different ETL tools. He is Oracle Certified Database Administrator.

Relevant Experience

Mr. Bhoraniya's accomplishments include:

- Worked as Data Warehouse Consultant for Colorado Department of Education, Work Included Data Warehouse Design, Training to Client DBA, Build ETL mapping using Oracle Warehouse builder/Informatica, Design report using Oracle Discoverer, write some of the complex calculation program using PL/SQL, Write reports using Oracle Reports.
- Worked in Installation and Administration of Oracle Application (11.5.3),at the Denver Solution Center. Work includes Apps Installation, User Administration and 8i Database Administration.
- Was a member of KPMG team at Reader's Digest in the implementation of Oracle Applications 11.03.Worked on the development of Custom Interfaces for Oracle Bill of Materials. This Interface was developed using FORMS 4.5 and REPORTS2.5. This form invoked some pl/sql procedures. Also worked on reports customizations for various modules. Also used a third party tool OPTIO, in formatting reports like Purchase Order, Check Printing, Request for Quote etc.
- Worked as ORACLE DBA at Qwest Communications. This work includes database creation, user administration on SEQUENT(Dynix) and performance tuning, query optimization, table space and rollback segment management, parameter tuning and Oracle software database upgrade. Writing automation script using PL/SQL, PERL, Pro*C for loading data in decision support system from different data source whenever source data has been updated/inserted. Writing UNIX shell script to transfer text data file to designated machines using FTP. Also wrote daemon process using PERL and C to automate loading to DSS, Prioritized execution time to different jobs to distribute the load on database. Assisted in Logical and Physical Data modeling using Oracle Designer. Upgrade Oracle 7.3 to 8i.
- Worked as Oracle Data Warehouse DBA for NASDAQ Work includes Data Loading strategy, Database Design and database load distribution. Also worked to configure ETI Extract tool to extract data into Data Warehouse from different data sourcing like Ingress,

text file and other Oracle Database, Scheduling jobs using Maestro. Wrote PRO*C, PL/SQL programs for ETL. Involved in Configuration management and Version Control using RCS on Unix. Also made a release build for testing team and attached a release symbol to each program/script.

- Worked as SYBASE DBA, HP UNIX admin these work includes Sybase Installation, OS and Database user Admin, Application & Parameter tuning, also worked for upgrading current system from Sybase-4.0 to Sybase-10. Writing UNIX shell Scripts and program using DB Library and APT/SQL.
- Worked in the Development and validation of ETL scripts for reporting application at Cable Vision. KOM Micro strategy implementation. This work includes extraction, transformation and loading data from current legacy system to new Oracle reporting tool database using PL/SQL.
- Worked In Implementation of Oracle 9i Application Server including Oracle portal and Oracle Application Interconnect at Denver Solution Center.
- Worked as Oracle Technical Support person for Oracle Support Group of TCS, this work includes Oracle Database Installation on Different platform (Hp, SUN and Digital Unix), DBA training and fulltime support for any oracle problems. Was involved in Upgrade oracle 6.x to Oracle 7.x.
- Worked in CMM (Capability Maturity Model) evolution process, wrote different documents for CMM level 4 compliance like Configuration Management, developed different process for compliance to CMM.
- Worked as developer for Bills Discounting Sub system and its interface with financial accounting. These includes developing forms using Oracle Forms and reports using Oracle reports. Writing functions, procedure, triggers on Oracle Database. Also includes Testing and User documentation. Worked in payroll module of Enterprise Information system, wrote a PL/SQL procedure for salary computation.

Mr. Bhoraniya has worked on different RDBMS, programming languages, ERP and tools. He has through experience in software development life cycle and complete knowledge of oracle DBA. The industries in which Mr. Bhoraniya has specific experience include financial services, manufacturing, telecommunication and education. His clients include the following corporations:

Cablevision	Qwest Communications	NASDAQ
Readers Digest	Banking Industries (India)	Choksi Tube Company (India)
GLFL(India)	GCMMF (India)	Colorado Department Of Education

Professional Background

Prior to joining BearingPoint, Mr. Bhoraniya was employed by a consulting firm as IT Analyst. He was also employed by the Choksi Tube Company, India as programmer analyst. He worked with Uptron ACL, India as developer.

He holds a Bachelors degree in Computer Science from the MS University of Baroda, India

Education

Texas A&M University Master of Science August 1995	Educational Human Resource Development The Distance Learning Program
Texas A&M University Bachelor of Science August 1993	Curriculum and Instruction Special Education (Texas Teacher Certification)

Technical Skills

Operating Systems:

- HP-UX 11 v.2
- Red Hat Certified Technician (RHCT) 3.0 and 4.0
- RHCT Certificate Numbers: 604006551611152 and 603004290291886
- Windows NT/2000/2003/R2 Server, including: Active Directory, DNS, and DHCP services
- Windows XP Professional
- Macintosh Systems
- Novell NetWare 3.12/4.11

Hardware & Software Applications:

- Cisco ASA/PIX Firewall
- Cisco 6509 Core, 3524, and 3750 Switches
- Cisco Content Services Switch (CSS)
- Cisco VPN Remote Access
- RSA Token Management
- Microsoft Systems Management Server (SMS) 2003
- Microsoft Windows Server Update Services (WSUS)
- Microsoft Office 2003
- Microsoft Visio 2000/2003
- CVS Server Administration
- HP Data Protector and VERITAS Backup Exec
- Trend Micro Neat Suite with Spam Prevention Solution (Anti-Virus, Anti-Spyware, SPAM filter)

Internet/Intranet Applications:

- Oracle 10g J2EE Application Server
- Cognos Server Administration
- Microsoft Internet Information Server 4.0/5.0/6.0
- Microsoft Windows Media Services
- Apache HTTP Server 1.5
- Microsoft Exchange 2000/2003 Mail Server
- Numara Footprints Helpdesk System
- Lyris List Manager
- FTP and Terminal Services

Programming/Multimedia Authoring Skills:

- Hypertext Markup Language (HTML)
- Macromedia Dreamweaver (HTML Editor)
- Macromedia Authorware & Director
- Microsoft FrontPage 2000/2003

Interactive Video Systems:

- VTEL Certified Systems Engineer
- Setup, configuration, and training for VTEL videoconferencing systems
- PictureTel
- Compression Labs, Inc. (CLI)

Employment

Colorado Department of Education Systems/Network Administrator Primarily responsible for supporting all network and systems management for the Colorado Department of Education (CDE), including, but not limited to: <ul style="list-style-type: none">• Installation, upgrades, and maintenance of hardware and software from the end-user the client desktop computer to the services provided (i.e., Email and Internet Access, File Services, Printer Services, Enterprise Databases, Web Application Services, etc.).• Responsible for supporting, monitoring, and servicing CDE server environments.• Responsible for supporting, monitoring, and servicing CDE network infrastructure and network perimeter security.• Responsible for incident/problem management and implementing the best method to resolve any existing network hardware, software, or performance issues.• Responsible for consulting IT management and end-users on all hardware and software purchases.	8/1999-present
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Colorado Institute of Art Part-time Instructor – “Teleconferencing” - the use of electronic channels to facilitate communication among groups of people at two or more locations.	7/1999-7/2002
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Continuation of Colorado Institute of Art Experience

Part-time Instructor – “Computer Applications” – In this course, students learn to use computer software packages, including word processing, database management, spreadsheets, and presentations. In addition, students become familiar with operating systems such as DOS, Macintosh, and Windows as well as computer equipment such as printers, scanners, and external drives. Students also learn to use the Internet as a research and networking tool.

Andersen Consulting - Change Management

4/1998-8/1999

Analyst in the Performance Design and Development skill track.

Enterprise Billing Software Implementation Project -Business Change Team. Responsible for providing software assistance to users for Visio, Microsoft Office 97, Microsoft NetMeeting, Netscape Communicator (including Calendar & Messenger components), and Microsoft Project. Also responsible for maintaining and providing user assistance on Microsoft Windows 95 and NT Workstations. Primary person responsible for the development and maintenance of the project plan. Using Macromedia Dreamweaver software, also responsible for developing and managing the Business Change Web Site for communications and training of stakeholders for the billing software implementation.

Continuation of Andersen Consulting Experience

Customer Business Modeling Project. Researched and developed a customer billing model based on a hierarchical structure. Developed Visio® diagram of a customer billing hierarchy to represent issues and concerns over the current billing processes by graphically depicting the current hierarchy of a customer. Developed Visio® diagrams of the customer billing hierarchy and participated in representing process flows for the following: present situation; future possibilities (individual billing, regional billing, hybrid billing). In addition, worked with FLEXCAB demo and SIEBEL prototypes to display the customer billing hierarchy. Demonstrated and presented SIEBEL prototype to the client. Developed Authorware multimedia simulation of the SIEBEL prototype to be used in conjunction with presentations to executives.

VTEL Corporation

10/1997-4/1998

Training Development Manager under the supervision of Carol Shaffer. Responsible for providing support and training for interactive digital video technology in all education, corporate, healthcare, and government environments. Primarily responsible for developing curriculum development workshops for training educators, training specialists, and administrators to be successful with the delivery of content using interactive digital video technology. Also responsible for managing the planning, design, development, implementation, and evaluation of various training programs for internal and external applications.

VTEL Corporation

7/1996-10/1997

Education Specialist under the supervision of Dr. Mac McHugh. Responsible for providing support and training for interactive digital video technology in all education and government environments. Primarily responsible for developing curriculum development workshops for training educators, training specialists, and administrators to be successful with the delivery of content using interactive digital video technology.

South Georgia College

8/1995-7/1996

Instructional Technology Support Specialist under the supervision of Elizabeth Bagley. Coordinated all Distance Learning Activities and Instructional Technology for South Georgia College. Also responsible for training faculty and staff to use a wide variety of software and hardware related to instructional technology such as interactive digital video, the Internet, various audio/video devices, and computer technology. Distance learning activities included the management of The Foreign Language Collaborative and several cooperative agreements with Valdosta State University.

South Georgia College

Winter Quarter 1996

Instructor under the supervision of Dr. Roger Nye
 Computer Information Systems 208: *Spreadsheets (Microsoft Excel)*
 Computer Information Systems 209: *Business Application Software (Microsoft Office Professional)*

Texas A&M University

6/1993-8/1995

National Science Foundation Grant *Teachers As Research Partners (TARPS)*
 Research Assistant under the supervision of Dr. Carol Stuessy.
 Provided technical support for the TARPS Project.
 Developed software using HyperCard authoring package on the Macintosh in a user friendly manner to be applied by math, science, and physical education teachers. Established a “World Wide Web” Server for telecommunications support in the dissemination of teacher made curriculum and coordinated various distance education activities for the TARPS Consortium.

Training Attended

HP-UX System and Network Administration for Experienced UNIX System Administrators
 HP

3/2007

Red Hat 300 RHCE Rapid Track Course Red Hat	12/2006
HP OpenView Storage Data Protector-II (integration) HP	10/2006
CCNA Bootcamp Sunset Learning	8/2006
Managing HP StorageWorks Enterprise Virtual Array HP	10/2005
Oracle Jdeveloper 10g: Build Applications with ADF Oracle	10/2005
Cisco Secure PIX Firewall Advanced (CSPFA) Techwise	9/2005
EC-Council – Ethical Hacking and Countermeasures Techwise	9/2005
Fundamentals of Microsoft Network Security Techwise	8/2005
Red Hat 253 - Networking and Security Red Hat	4/2005
Red Hat 133 Red Hat Linux System Administration and RHCT Red Hat	11/2004
Red Hat 033 - Red Hat Linux Essentials Red Hat	7/2004
Oracle Applications Server 10g: Administration I Ed Oracle	4/2004
827/828 Accelerated Administering SMS 2.0 Implementing and Supporting SMS AmerITeach	3/2002
Administering the 9i Application Server Oracle	2/2002
Windows 2000 for Windows NT Administrators Batkey-Howell	3/2001
On-line Teaching Class at Art Institute of Colorado Art Institute of Colorado	8/2000
Implementing Magic Help Desk Network Associates	2/2000
The 7 Habits of Highly Effective People Franklin-Covey	3/1998
VTEL Certified Instructor VTEL Corporation	1/1998
VTEL Certified Systems Engineer VTEL Corporation	1/1998
SmartStation Installation and Service VTEL Corporation	7/1997
Telecommunications Technologies for the Non-Engineering Professional DATA-TECH Institute	1/1997
Enterprise Series Architecture (ESA) Installation and Service VTEL Corporation	1/1997

MCU-II Installation and Operation
VTEL Corporation

1/1997

Novell Netware 3.12 Training
Valdosta State University, Valdosta, GA

10/1995

References

Dr. Carol Stuessy
Texas A&M University
Teaching Learning And Culture
College Station, Texas 77843-4232
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Home: (b)(6)
email: c-stuessy@tamu.edu

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Texas A&M University
Educational Administration
College Station, Texas 77843- 4226
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Home: (b)(6)
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Oracle Corporation
1911 Parfet Estates Drive
Golden, Colorado 80401
Office Phone: (303) 668-6987
Home: (b)(6)
email: matthew.kadillak@oracle.com

Subject: Resumé

Abdisalam M Aimad

Profile

- Certified Oracle 8i and 9i Database Administrator with over 4 years Experience of Information Technology industry including over 3 years with Oracle Production database with BANNER ERP.
- Currently working at Colorado Department of Education as a DBA in both Development and Data warehouse environments.

Professional Experience

- Installed and configured Oracle8i, 9i and 10g on Windows, Linux and Unix Platforms
- Administered Oracle 9i with BANNER 7 ERP for Metro State college of Denver
- Performed Banner upgrades and applied their defects patches.
- Performed Oracle 9i upgrade to Oracle 10g by using DBUA tool.
- Installed and configure and Administered Oracle Application server 10g in UNIX and LINUX platforms.
- Cloned Test databases from production Instances for different purposes like upgrade, development and also as a standby database
- Installed and Configured HTMLDB for reporting and development
- Set up RMAN backup strategy for Oracle databases running 9.2.0.5 for both control file and Catalog
- Monitored multiple instances by using OEM, Embarcadero, TOAD, SqlDeveloper and other home grown scripts.
- Administered Oracle Databases in both OLTP and DSS environments.
- Currently working on Upgrading from oracle 9i to 10g at Colorado Department of Education on HPUX Itanium platform.

Education

1. **Metro State College:** B.S, in Computer Information Systems.
2. **Community College of Denver:** Associate Degree in Network Administration.

Training and Certification

- a. **OCP:** Oracle Certified Professional 8i and 9i.
- b. **Database Analyst:** Certificate from MSCD (Metropolitan State college of Denver).

- c. **Web Developer:** Certificate from MSCD (Metropolitan State college of Denver).
- d. **Programmer Analyst:** Certificate from MSCD (Metropolitan State college of Denver).
- e. **SAP:** Certificate of SAP emphasis on Human Resource Application and DB2 database as backend (Institute of Ideal Technology).

Dean E. Bixler

Objective Backup information for Federal grant request.

Experience March 2006–Current Colorado Department of Education
Denver, CO

Data Warehouse Programmer/Analyst

Colorado Education Data Analysis & Reporting System (CEDAR) Project

- Maintain CEDAR homepage, including the creation of training documents and quick fix publications.
- Developed and revised reports based upon user requirements and feedback.
- Setup user accounts for districts and CDE personnel involving the granting of permissions to secured data.
- Provide training to districts on how to use the CEDAR tool at various locations throughout Colorado.
- Respond to inquiries from users regarding data, navigation, and other inquiries.

School Accountability Report (SAR) Project

- Load and verify source data for fact and dimension tables utilizing Informatica and TOAD software applications.
- Modify the SAR report in Report Studio to comply with legislative bills and amendments.
- Coordinate and organize with printer all activities involved in the School Accountability Reporting Process including, but not limited to the publishing, proofing and distribution of these reports to 182 school districts and 1906 schools (public) in Colorado.
- Generate press packet for Governor's School Accountability Report Press Conference that is distributed to all interested media outlets.

Other Data Warehouse Duties

- Produce reports to fulfill data requests from a variety of sources utilizing TOAD (SQL) and/or Cognos.
- Modify Informatica mappings to meet data requirements.

September 1997–February 2006 Coors Distributing Company
Denver, CO

IT Process Analyst

- Administered Margin Minder server, including, but not limited to data integrity, training, and defining datasets.
- Implemented S4/Edgar archive, messaging and retrieval tool which resulted in time and material savings.
- Successfully converted Route Accounting System – Descartes to VIP
- Executed 150 Pocket PC installations including the creation of training manuals, technical support, and upgrades.
- Ensured that interfaces along with data were in sync with one another across multiple data warehouses – DB2, Oracle, and Margin Minder.
- Point person for all data mining activity.
- Liaison between Pocket PC users and VIP programmers.
- Data Steward (CoorsNET) for Denver and Glenwood Springs facility.
- Set up Windows NT, Squid-Proxy, Exchange, RAS, and other user accounts for Boise, Denver, and

Glenwood Springs.

- Audio/Visual support and troubleshooting for hospitality room events.
- Generate beer order and forecasting tools for sales managers and product procurement on a weekly basis.
- Designed and constructed company wide intranet for employees to access process flow diagrams, company info, and other additional online resources.
- Manage and assist with Lanier print server.
- Revamped reporting process for beginning inventory, forecasting, and removals which resulted in a 2 hour weekly time savings.
- Completely managed the Cognos Impromptu Web server primarily used for Customer Reviews.
- Conducted annual retailer survey which highlighted areas of opportunities and emphasis for the following year.
- Provided all static and ad-hoc volume reporting for Sales Department
- Started advertising tracking program that aided in the number one market share of liquor store advertising.
- Generated sales presentations regarding category management, creating partnerships, and brand acquisition.

Education

1993–1997 University of Colorado Boulder, CO

- B.S. Business Administration; Information Systems

Training

<i>Date</i>	<i>Title of Class</i>	<i>Provider</i>	<i>Software</i>
<i>February 2007</i>	<i>Mapping Colorado Communities: An Introduction to GIS & Community Analysis</i>	<i>New Urban Research, Inc.</i>	<i>ArcGIS 9.2</i>
<i>February 2007</i>	<i>Informatica PowerCenter 7: Level I Developer</i>	<i>Visionary Integration Professionals</i>	<i>Informatica PowerCenter 7</i>
<i>May 2006</i>	<i>Cognos ReportNET 1.1 – Metadata Modeling Part 1</i>	<i>JCB Partners</i>	<i>Framework Manager, Query Studio, ReportNET, Report Studio</i>
<i>May 2006</i>	<i>Cognos ReportNET 1.1 – Report Authoring Part 2</i>	<i>JCB Partners</i>	<i>ReportNET, Report Studio</i>
<i>March 2006</i>	<i>Introduction to Microsoft Project</i>	<i>Steve Mayfield</i>	<i>Microsoft Project</i>

Computer Skills

Cognos: Access Manager(2), Cognos Connection(1), Framework Manager(2), Impromptu(1), PowerPlay(1), Query Studio(1), ReportNET(1), Report Studio(1), Transformer(3)

Databases: DB2(3), Oracle(3)

Informatica PowerCenter: Designer(2), Workflow Manager(2), Workflow Monitor(2)

Microsoft Office Professional: Access(2), Excel(1), FrontPage(2), Outlook(1),

PowerPoint(1), Project(2), Visio(2), Word(1)

Miscellaneous Applications: Crystal Reports(2), Descartes (1), Internet Explorer(1), Margin Minder(1), Monarch(1), Oracle Forms(3), TOAD(2), Textpad(1), VIP (1)

Operating Systems: DOS(2), Linux(3), Pocket PC(1), Windows(1)

Utilities: Ghost(2), PCAnywhere(2), Terminal Services(2), TR Print Server(2)

* Numbers enclosed in parentheses are representative of skill level (1) Advanced, (2) Proficient, (3) Novice

* Professional references available upon request

Boris Slavkin

(303) 866-6919 Work

JOB OBJECTIVE

To obtain a position utilizing my professional skills and the broad software development experience on the Mainframe and Client/Server platforms in Information Technology industry to satisfy the requirements and the overall success of the organization.

SUMMARY OF QUALIFICATIONS:

- Over 15 years of computer system experience as a System Development Specialist.
- Experience at every stage of full life-cycle software development, including customer and requirements negotiations/definitions, systems analysis, architectural and structured design, coding, testing, implementation, product maintenance, and customer support.
- Extensive work with many software methodologies and tools. Experience with database design, conversion and optimization as well as with Client/Server development.
- Experience with education, health care, financial, inventory, accounting, and payroll systems.
- Worked successfully in many team environments.

Languages: SQL+, PL/SQL, SQR, COBOL II, CICS, PL1, JCL, SAS, Easytrieve, C, VB

Databases: Oracle 8i, 9i, DB2 UDB, IDMS, VSAM, MS Access

Operating Systems: UNIX /HP/AIX, IBM MVS/ESA, OS 390/USS, Windows XP/2003/NT, MS DOS

Software: Informatica PowerMart and PowerCenter 6.x, 7.x, Cognos ReportNet 1.x, Cognos PowerPlay 7.3 (OLAP tool), Cognos Access Manager Administration 7.x, Cognos Impromptu 7.x, Brio, TOAD, TSO/ISPF, Intertest, QMF, SPUFI, MVS Utilities (SyncSort, File-Aid, IDCAMS, etc.), Panvalet, Endeavor, Abend-Aid, MS VSS, FTP, MS Office 97-2003, MS Visio

Hardware: HP 9000, RS 6000, IBM 9000, 3090, IBM PC and compatible

PROFESSIONAL EXPERIENCE

Colorado Department of Education, Denver, CO

Data Warehouse IT Professional, CDE Data Warehouse

2005 - current

Participating in all phases of Colorado Student Assessment Program (CSAP) project. My responsibilities include supporting existing Colorado School Accountability Reports (SAR) system - ETL layer as well as Cognos reporting solutions. Develop, test and provide numerous Accreditations reports as requested by CDE and School Districts. My additional responsibility includes Cognos Security Administration and implementing of Configuration Management procedures.

- Design, Model, and Develop Data Marts to accommodate CDE DW project expansions.
- Develop, Implement, Test and Support numerous ETL Maps and Workflows using Informatica.
- Create Cognos Framework models, ReportNet reports, PowerPlay Transformers and Cubes.
- Support, Modify, and Improve existing CDE reporting systems that include: SAR, CSAP, Accreditation, Adult Education and Data Dictionary systems.
- Convert old Brio/SQR and Oracle reports into Informatica maps and Cognos reporting solutions.
- Participate in implementation of new Administrative security system for CSAP project; support, maintain, troubleshoot security system; respond to admin requests (user accounts, access levels, data source links)

Boris Slavkin (303) 368-5905 Home (303) 866-6919 Work slabor@yahoo.com **Page 2**

Lockheed Martin, Aurora, CO

Sr. Business Application Programmer, PEPR/BPA Project

2002 - 2004

I was involved in the enhancement of Patient Encounter Processing and Reporting/Bit Price Adjustment (PEPR/BPA) that was a US Military healthcare based project subcontracted to Lockheed Martin.

Participated in implementation of the system which was responsible for adjusting the amount of money that is awarded to contractors to manage and purchase health care for the region due to the factors that are outside of contractor's control, such as base closer, troop redeployment, treatment facility closures.

My extensive contribution to this project included:

- Actively participated in full life cycle software development. Responsibilities included: System Analysis, Custom Requirements definition, System Architecture development and detailed Design.
- Developed/Restructured the BPA system from Mainframe MVS/COBOLII/SAS/IDMS into AIX/UNIX/Informatica/Oracle/Cognos/PLSQL Client/Server environment utilizing Business Intelligent software specifically Informatica Powercenter 6.x, Oracle 9i, Unix Shell scripting and Cognos Impromptu 7.x.
- Designed and provided development of all data extracts, ETL modules and batch automation strategy. Successfully implemented and supported ETL layer that consists of complex Informatica mappings as well as PL/SQL stored procedures.
- Designed and developed BPA database architecture that included logical and physical design and development of Oracle database.
- Created numerous Cognos Impromptu 7.x reports to support BPA system. Developed and successfully implemented the complex Crosstab and Sub-reports using type-in and pick-up Prompts. Used reference tables, joints and complex filters to query data for reports.

Sr. System Development Specialist,

Claim Processing System

1997 - 2002

TriCare Management Activity/Source Data System – Claim Processing (TMA/SDCS) – DOD healthcare based project subcontracted to Lockheed Martin. I was actively involved in development and implementation of the system that was responsible for Inpatient and Outpatient Validity edits, Claims, Providers and Pricing data processing and Reporting. My broad contribution to this project included:

- Analysis, Development, Maintenance and Enhancement of the software applications on IBM Mainframe utilizing COBOL II/ Easytrieve /DB2 and host of other mainframe tools.
- Extensively worked on variety of Work Orders, Incident Reports and Ad Hoc requests from client in a very short timetable. Performed primary and backup production support to the SDCS.
- Successfully created a number of tools to optimize Claim processing and increase team efficiency. These tools have become the standard for Claim Processing group.
- Participated in full life cycle development of highly visible Noble/Eagle Reimbursement project in a very aggressive deadline. Took leadership role and provided development and analysis support at all stage of this project.

First Data Corporation, Englewood, CO
 Programmer Analyst, **CASHTAX Group**

1994 - 1997

- Supported CASHTAX Management System - Data Collection Services for Financial Institutions, which included Cash Concentration, Cash Disbursement, Tax Reporting and Collection, Draft and Direct Deposit Reimbursement, Check Printing System, Management Information Reporting.
- Analyzed, designed and provided support for projects covering a wide range of applications.
- Coded, tested and implemented various batch programs in a COBOL environment utilizing VSAM files.

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EDUCATION / TRAINING

Bachelor of Science in Math and Computer Systems - Kiev Teacher College, Ukraine

JCB Partners – Cognos ReportNet training – 2005

JCB Partners – Cognos PowerPlay training – 2005

Cognos corp. – Cognos Impromptu training – 2003

Core Integration – Infomatica training – 2002

Oracle corp. – SQL+, PL/SQL training - 2000

References - available upon request

CHARLES PETER MCCAFFREE

CAREER SUMMARY:

A proven senior level engineering solution provider with expertise in Database Software Development, Aerospace Engineering and hands on experience in Accounting. Effective in requirements gathering, design and implementation of complex database software systems ranging from online transactional systems to data warehousing of information and the gathering of technical analysis results used for system design. Solid technical / analytical skills gain after earning a Bachelor Degree in Aerospace Engineering, two Certificates earned in Computer Science and vendor course work in Oracle, Informatica, Microsoft and others.

Technical Tool Skills:

- Informatica Power Center (Designer, Workflow and Administration).
- Oracle DML, DDL, PL/SQL, SQL*Loader, SQL*PLUS.
- Unix Shell Scripting and the Perl programming language.
- Web scripting languages: VB, PHP, ASP, HTML, XML and Java scripting.
- Microsoft Office products Access, Excel, Word, VB and FoxPro.

PROFESSIONAL EXPERIENCE:

SOFTWARE ENGINEERING

Company: Colorado Dept. Of Education, Denver, Colorado (11/04 to Present)

Position: IT Professional

Support the design, development, implementation and maintenance of the State's data warehouse and perform database administration on the many database instances hosted on Unix servers.

- Continue to design, develop and implemented processes to send data to the U.S. Department of Education data warehouse based on given specifications. Implemented such process of extract, translation and generation of flat files using the Informatica tool set.
- Provide database administration at various levels in implementing DML, DDL, DCL and the use of Oracle utilities such as the input/export tool set.
- Implemented a configuration management control process to allow for controlled modification to the production data warehouse database and modifications needed to the support processes changes in Informatica.
- Provide training of the CEDAR application to school district personnel at their location at the central office.
- Continue to provide administration of the Informatica tool (updates, backups and adding new users).
- Implemented changes to the data warehouse per requests from users, bugs and implementation of new law as well as changes to the processes (Informatica) that load new data.
- Source of knowledge base to other developers on architecture design and solutions to coding issues.
- Provide management with project plans, estimates of hours for tasks and initial requests for approval.

Company: Qwest Communication Inc., Denver, Colorado (11/99 to 7/04)

Position: Lead Software Engineer

Supported the corporate IT department in the area of Data Warehousing from analyses of user requirements to the implementation of database objects and software coding for the Finance, Marketing and Legal Departments.

- Implemented a contractor developed application to allow for the generating of reports on the progress of each outside vendors orders through companies order system to avoid possible commission based law suits.
- Implemented a database to monitor customer disputes in transferring long distance phone service to Qwest (PIC disputes) in order to avoid the cost of marketing to the customers under dispute.
- Implemented a company wide database to report on customers that no longer wanted to be solicited (Do-Not-Solicit) in order to avoid possible law suits from individuals or business and reduce marketing costs.
- Major team member in implementing the combining of financial data from two different financial systems to one corporate wide data warehouse reporting system in order to improve data quality.
- Provided support to junior engineers when needed in order to meet customer requirements and provided team leadership/positive enthusiasm at all times.

CHARLES PETER MCCAFFREE (303-443-4267)

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Company: Access Graphics/GE IT Distributions, Boulder, Colorado (05/97 to 11/99)

Position: Software Programmer/Analyst

Supported efforts in the corporate IT department from analyses through coding to customizing and stream-line

operations in the use of the Oracle Financial applications (Oracle Purchasing, Order Entry, Manufacturing).

- Projects included automating the warehouse shipping process, automatic Purchase Order generation from Sales Orders information, ability to process negative Purchase Orders and restricting Sales holds.
- Modified existing and generated new input screens for use at the warehouses to control serial numbers.
- Provide a knowledge base of experience to help in the implementation of new projects which included the integration of a new company into the corporate IT department and the integration of the Oracle service module.
- Provided infrastructure support, process improvement and strategic IT direction ideas and the implementation of corporate development standards.

Company: Logicon Information Technology Group, Englewood, Colorado (09/95 to 04/97)

Position: Software Programmer/Analyst

Provided extensive analysis in developing the Logical & Physical models using sophisticated CASE tool software

with emphasis on the RAD development cycle to convert mainframe computer data to a client/server platform.

- Provided DBA functions in managing multiple schemas, data administration and data security policies.
- Generated DDL scripts and reports in support of project requirements.
- Developed many conversion programs for loading data into predefined custom tables.
- Supported tasks in the installation of the original project infrastructure at the customers' site.

ACCOUNTING POSITIONS

Company: Triad Commercial Properties, Lafayette, Colorado (01/88 to 09/95)

Position: Information Systems Specialist

- Responsible for the financial information through to the Balance Sheet and Income & Expense reports.
- Designed and developed the bookkeeping system to support customized functionality needed.

Company: RMS Electric Inc., Boulder Colorado (01/94 to 09/95)

Position: Information Systems Specialist

- Implemented a booking log, human resources and commission payable system to better track information.
- Responsible for the financial information through the Balance Sheet and Income & Expense reports.

AEROSPACE ENGINEERING

Company: Martin Marietta Corporation, Denver, Colorado (10/86 to 01/93)

Position: Senior Engineer

Contracts Department:

- Part of a team that generated approximately \$70 Million in new business from government contracts.
- Prime contact for changes to the baseline contract for several of the major element contractors.
- Prime contact for changes to the baseline contract for the Vandenberg rocket launch facility.
- Gained working knowledge of planning/scheduling, estimating, system engineering, contract administration.

Vehicle Launch Support Department:

- Provided trajectory simulations (mainframe), reports and parametric studies for the Titan IV program.
- Provided trajectory simulations (PC) and parametric studies for smaller Government programs.
- Provided software programs in to support of various data requirements.

Company: General Dynamics/Space Systems, San Diego, California (05/83 to 09/86)

Position: Engineer

- Provided trajectory simulations (Cyber mainframe), reports and parametric studies for the Space Shuttle program.
- Provided trajectory simulations (Cyber mainframe), reports and parametric studies for the Atlas Vehicle program.
- Built smaller software programs to solve engineering problems using personal computers.

CHARLES PETER MCCAFFREE (303-443-4267)

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TECHNICAL TOOL SET:

Database Management Systems

- Oracle relational database tool set including SQL*PLUS, SQL*PLUS, PL/SQL and SQL*Loader.
- Oracles relational languages to create, drop, grant access to objects (DDL and DML).
- Microsoft SQL Server, Microsoft Access and Sybase.

Software and Programming Languages

- Informatica tool products designer within the Power Center (5.x, 6.x, 7.x) tool set.
- Unix Shell Scripting and Perl programming.
- Web scripting languages: VB, PHP, ASP, HTML, XML and Java scripting.
- Microsoft Office products Excel, Word and Fox Pro 2.x.
- Java, Visual Basic and C programming, Oracle Forms and Reports (4.x), PowerBuilder 4.0 and Dreamweaver.
- CASE Tools: Systems Engineer, Erwin/Windows 2.x and Migration Architect.
- Others: PVCS Dimensions, CONTROL-M, FORTRAN, dBase III, Oracle Manager Console and Apache Server.

Operating Systems

- UNIX based: HP-UNIX, Linux and Sun Solaris.
- PC based: Microsoft Windows, NT and MS-DOS.
- Mainframe: Cyber and VAX/VMS.

Methodology Studied

- Object Oriented Development and XP Best practices.
- Rapid Application Development and Large System Development Cycles.

EDUCATION:

Degree:

Bachelor of Science, Aerospace Engineering, San Diego State University, May 1983.

Certificate:

- *Database Administration*, University of Denver/University College, March 1997 (core for Masters).
- *Computer Information Systems*, University of Denver/University College, November 2001 (core for Masters).

Other Education:

- Financial & Cost Accounting from the University of Colorado at Boulder (1994).
- Real Estate Appraisal and Broker Licensing from the University of Colorado at Boulder (1992).
- Government Contracting from the University of Phoenix (1991).

Tool Set Education: Infomatica Power Center Beginning, Intermediate and Advance practices; Oracle Forms, Reports and PL/SQL (7 courses in total); CompUSA User Training: Access 2000 Levels 1,2,3; Excel 2000 Levels 1,2; XP Best Practices; Rapid Application Development (RAD); COGNOS tool set; Other tool vendor courses in Business Analysis, System Engineer and Migration Architecture.

COMMUNITY SERVICE:

The coaching of my son's soccer team for 9 years has given me great insight into the management of both a team of young people and their parents.

GLYNN D. LIGON

EDUCATION

Ph.D.	The University of Texas at Austin	<i>Educational Psychology</i>	August 1980
M.A.	Texas A & I University	<i>Psychology and Education</i>	June 1971
B.A.	Baylor University	<i>Psychology</i>	June 1969

EXPERIENCE

ESP Solutions Group (Evaluation Software Publishing, Inc.)

President and Chief Executive Officer

March 1993 - Present

Founded and led leading K-12 education data services firm. Responsible for overall strategic direction and operational performance of the firm. Client-facing responsibilities include the development and management of strategic information services and technology projects, evaluation of the effectiveness of programs, and design and development of large-scale software applications. Clients include the U.S. Department of Education and dozens of state education agencies.

Austin Independent School District

Executive Director, Dept. of Management Information March 1985 - February 1993

Responsible for managing the activities of this department. Served on the Superintendent's Cabinet. Provided coordination and efficiency among the District's offices, collecting, analyzing, and reporting information. Directed the activities within six major areas: 1) research, evaluation and student testing; 2) student records, eligibility, transfers, and District elections; 3) systems and applications computer programming; 4) computer operations and production; 5) telecommunications for voice, data, and video transmissions; 6) and planning and projections for student enrollment and facility use.

Director, Office of Research and Evaluation

July 1983 - February 1985

Responsible for providing AISD with information for decision making for the improvement of instructional programs. Major areas of responsibility: (1) supervised federally and locally funded project evaluations; (2) preparation, administration, and review of various budgets under which the office is funded; (3) recruitment, screening, and hiring of competent personnel; (4) supervised all research activities conducted in the District by external agencies, including the responsibility of screening of projects; (5) acted as a general consultant to the AISD staff in all phases of evaluation; and (6) acted as official liaison between the public and media and the District.

Evaluator

November 1972 - June 1983

Edgewood I.S.D. and Mission I.S.D. (Texas)

Teacher

June 1969 - November 1972

PUBLICATIONS AND PAPERS

Extensive list of evaluation papers and other publications. Available upon request.

SELECTED HONORS AND PROFESSIONAL APPOINTMENTS

American Educational Research Association, Vice President (1991-93)

Southwest Educational Research Association, President (1990-91)

Evaluation Review Panel, United States Department of Education (1992-current)

National Education Goals Panel, Data Definition Task Force (1993-1995)

Barbara Clements

EDUCATION

Ph.D.	The University of Texas at Austin	<i>Educational Psychology</i>	1991
M.A.	The University of Texas at Austin	<i>Foreign Language Education</i>	1977
B.S.Ed.	The University of Texas at Austin	<i>Education</i>	1969

EXPERIENCE

ESP Solutions Group (formerly Evaluation Software Publishing, Inc.)

Vice President for Education Services May 1997 – Present

Responsibilities include project design and management, program evaluation, software conceptualization, and consulting on education information management systems and technology utilization. Extensive work completed with U.S. Department of Education and many state education agencies.

Council of Chief State School Officers (Washington, D. C.)

Acting Director, State Education Assessment Center August 1995 – Sept. 1996

Directed projects designed to improve the quality and availability of information on education. Responsibilities included coordinating Center activities and advising project directors; coordinating a task force of Council members; developing funding proposals; and handling inquiries about Center projects and activities.

Project Director, Data and Information System Project September 1987 – April 1997

Directed a series of federally funded projects to promote better collection and management of education information. Oversaw the development of indicators to assess the quality and progress of the education system, handbooks for the standardization of student and staff data, guidelines on information management systems, and guidelines on technology implementation. Provided technical support for state education agencies as they automated data collection and reporting. Responsibilities included analysis of data collection systems, convening of task forces and working groups, development of written recommendations, provision of technical assistance, and presentation and dissemination of information to the public.

Texas Education Agency

Education Program Director October 1984 – July 1987

Worked on projects related to the development and research on assessment and appraisal systems for Texas educators. Responsibilities included analysis and interpretation of data, monitoring funded research projects, development of descriptive materials, and dissemination of information to the public.

The University of Texas at Austin

Research Associate, R&D Center for Teacher Education August 1977 – Sept. 1984

Provided direction and conducted data collection and analyses on seven classroom management research projects.

PUBLICATIONS AND PAPERS

Extensive list of publications and presentations. Available upon request.

HONORS

Who's Who of American Women
Phi Delta Kappa

Bob Fulton

SPECIALIZED TRAINING / SKILLS

PMI Project Management Professional (PMP) Certification (2006)
ASQ Certified Software Quality Engineer (CSQE) (1997)
AT&T and SPRINT technical and managerial courses
IBM technical schools

EDUCATION

Candidatus Magisterii, Informatikk (Master, Information Systems)
University of Oslo
Oslo, Norway

Bachelor Science, Education (Non-professional) Major: Music
Delta State University
Cleveland, MS

EMPLOYMENT HISTORY

SOFTMED SYSTEMS (FORMERLY EXPRESIV TECHNOLOGIES, INC) (Austin, TX)

02/2002 to 10/2006

Manager, Software Quality Assurance

Responsibilities:

Direct report to VP, Engineering for overall software quality of Expresiv Technologies' Client/Server and Web-based Voice Recognition and Document Management products.

With The VP Engineering and VP Development, established project management processes and deliverables, participated in project planning and implementation meetings for Expresiv product releases. Manage QA and testing activities on development projects for Expresiv's major products – MDDictate PC (client/server), ChartScript.Net (web-hosted), and Expresiv Data Integration Gateways.

Supervise 4 contract QA engineers, scheduled work hours, resolved conflicts, determine salaries.

Manage testing activities of 'virtual test team' (6 employees) consisting of professional services, tech support, operations, training, and technical writing staff.

Accomplishments:

Built / configured an engineering QA lab consisting 6 application servers, 2 database (MS SQL Server) servers, 2 DNS domain controllers, 1 - Symantec Ghost server (for imaging and backups), and 2 Web Application Servers (1–Windows 2000 Advanced Server, 1–IBMRISC 6000 WebSphere server).

At the direction of the VP, Engineering completed a review of software engineering processes. From this review, developed and implemented software QA processes that resulted in a 72 percent reduction in tech support calls for the Client/Server product, a 60 percent reduction in defects in Web-hosted applications, as well as a 33 percent reduction in development time to market for both medical professional and Enterprise applications.

Served as Project and QA Manager for 4 enterprise customer pilot implementations. Each of these projects were completed ahead of schedules outlined in Statements of Work and resulted in 4 'reference'-able enterprise customers and \$1.2M for professional services and licensing fees for our web-hosted products.

- Defined processes and activities.

- Created statements of work, project plans, work breakdown structures, and risk assessment plans.
- Created weekly progress reports for project sponsor, Expressiv upper management, and customer that tracked cost performance index (CPI), schedule performance index (SPI), planned value, and earned value.
- Created weekly QA status reports for project team and stake holders on customer acceptance testing.

Trained 'virtual test team' in basic software testing techniques, defining test scenarios, creating test case specifications; test case execution, defect reporting/tracking, and creation/restoration of test machine images using Symantec Ghost Enterprise Server.

NEON SYSTEMS (Sugar Land, TX)

08/2001 to 09/2001

QA Product Coordinator

Responsibilities:

Project Leader for certification of Neon JDBC driver and JCA Connector technologies on application server software products (e.g., IBM WebSphere, HP Bluestone, Sun iPlanet, BEA WebLogic)

Coordinate certification test results between application server vendors, and Neon's R&D, Product Management, Sales, Marketing, and Product Support organizations

Accomplishments:

Implemented QA and software testing processes; created project test plan and test case templates; defined test scenarios and test case specifications; coordinated availability of backend systems; prepared test data beds; installed and configured application servers and operating systems (NT4.0 and Windows 2000); executed test cases, logged defects in tracking system and coordinated fixes with off-site developers.

Completed certification project for Neon's JDBC driver for IBM WebSphere and Neon's JCA Connector for HP Bluestone.

Note: My position at Neon Systems was eliminated due to corporate restructuring action, re-alignment of Neon Systems product line, and events of 9/11.

Journee Software Corporation (Austin, TX)

08/2000 to 07/2001

Senior Quality Assurance Analyst

Responsibilities:

Lead QA Engineer for Journee's ServiceStream and Dialog Server web-based 'middleware' products.

Accomplishments:

Developed quality improvement processes, reporting metrics, and test strategies, documented test plans, and defined test case specifications for functional and performance testing of EJB's, session beans, servlets, JDBC connectivity, JMS messaging (MQSeries), database loads / updates (MS SQL Server and DB2 UMB), JSP pages, and WebSphere configuration scripts.

Wrote test harnesses (usually in JavaScript and HTML) for validating test results for cases where no GUI 'front end' existed.

Created and maintained test data beds in both DB2 (7.1.2a) and SQL Server (7.0).

Created and maintained QA website on the Journee intranet to publish test results and metrics, test plans, and various 'knowledgebase' articles (e.g., FAQ sheets, configuration and installation instructions, etc).

Established procedures for managing and maintaining QA Lab. Lab consisted of 12 dual processor 'server' grade machines running NT4.0 Server (SP6) with various configurations of IBM WebSphere (clustered and non-clustered); 2 Database Servers, 10 web client personal computers running various

configurations; and a single processor machine running Symantec Ghost Enterprise 2000 for configuration imaging.

All of the above resulted in higher quality software with reduced project 'chaos', shorter development cycles, and more accurate prediction of time/cost estimates of new development and maintenance releases.

MONEYSTAR Corporation (Austin, TX)

06/1999 to 8/2000

Senior Quality Assurance Engineer

Responsibilities:

Lead QA Engineer for the MoneyStar Financial Network (MoneyStar/fn).

Technical supervision of 5 QA engineers.

Accomplishments:

Developed/defined test plans and test case specifications for thin- and thick-client, Web-based applications developed in C++ using Microsoft Foundation Classes (MFC), running Windows NT40 and Windows 2000 IIS servers with MS SQL Server as the 'backend' database.

Prepare test case specifications for migration to automated test tools (SQA Test/Robot; Segue Silk)

Work with development leads and engineers to define test scenarios

Work with Project Management to develop and maintain QA portion of Release project plans (MS Project)

Develop SQL scripts for database validation

Define and execute test cases; validate test results

Develop/define software test metrics

Assist QA Manager in process definition and documentation standards

Conduct interviews and make hiring recommendations for QA engineering candidates

Configure test machines to validate product on various OS (i.e., Windows 95, Windows 98, Windows N/T 4.0 with IIS, and Windows 2000).

RCG Information Technology (Austin, TX)

05/1997 to 06/1999

Computer Sciences Corporation – Financial Services Group (CSC/FSG)

Quality Assurance Project Manager

Responsibilities:

QA and Testing Project Lead (contractor) for CSC/FSG, who contracted with RCGIT for three Y2K remediation projects

Served as RCGIT Southwest Region Subject Matter Expert for software testing processes and procedures.

In addition, conducted technical interviews with testing and Quality Control candidates for Southwest region branch offices (Austin, Dallas, Denver, Houston, and Los Angeles).

Accomplishments:

Developed / documented processes associated with Year 2000 (Y2K) assessment and remediation projects, based on James Martin (JMA) methodologies

Developed project Statements of Work, Terms of Reference documentation, and project plans

Worked with CSC/FSG management and clients in establishing software testing strategies, processes, and testing environments for major Y2K projects.

Managed the evaluation, trial tests, and recommended the acquisition of Y2K software testing tools for both mainframe and client/server environments

Managed Y2K test team of eight 'in-house' test analysts in Austin
Managed Y2K software testing efforts of both consultants and client staff at locations in Denver and Los Angeles
Created weekly QA status reports for RCGIT management, CSC project manager, project teams, and CSC stake holders on system integration and customer acceptance testing
Trained both RCGIT and client project teams in Y2K testing and validation processes and techniques.

COMPUTER HORIZONS CORPORATION (Tallahassee, FL)

07/1996 to 02/1997

State of Florida – Dept of Children and Family Services

Quality Assurance Consultant

Responsibilities:

Develop, document, and recommend quality improvement processes and test procedures to help ensure *FLORIDA* system meets certification standards of the US General Accounting Office (GAO).

Accomplishments:

Performed an analysis of the development life cycle (ISDM) used by client and, based on that analysis, provided a structured system and unit testing process to the project manager

Developed a Unit Test training course, customized for the Federal Certification project

Trained four Test Analysts in proper system testing analysis, documentation, and test execution procedures

Performed an analysis of Child Support Enforcement software development and maintenance processes and provided the Federal Certification Project Manager a document which recommended release management process changes to improve the quality and turn-around times for software development and maintenance.

The above resulted in reduced number of software defects in early test cycles, developers with improved unit testing skills, standardized documentation templates for test planning, test case design, and test execution, and more accurate estimates of project time lines and costs.

CMS Data Corporation (Tallahassee, FL)

7/1995 to 07/1996

Director of Development, CMS Open

Responsibilities:

Director of Development major player in legal accounting and practice management software industry.

Key responsibilities included scheduling, staffing and training resources, project scheduling, and evaluation of end-user productivity tools

Directed staff of 2 development managers, 15 C++ developers, 2 Database Administrators (SQL Server and Sybase), 7 QA analysts, and 4 documentation specialists

Accomplishments:


Extended the base capability of CMS Open applications in areas of client/server reporting, data access, inquiry, desktop integration and end user productivity

SECTION H: TIMELINE (5 page limit)

ID	Task Name	Work	Duration	Start	Finish
1	Longitudinal Grant Project	19,200 hrs	783 days?	Mon 10/1/07	Wed 9/29/10
2	YEAR 1 INITIATIVES	7,610 hrs	325 days?	Mon 10/1/07	Fri 12/26/08
3	LEAP INITIATIVE I	5,310 hrs	325 days	Mon 10/1/07	Fri 12/26/08
4	Longitudinal Analysis	2,060 hrs	325 days	Mon 10/1/07	Fri 12/26/08
5	Project Mgmt	180 hrs	180 hrs	Mon 10/1/07	Wed 10/31/07
6	System Architecture	240 hrs	240 hrs	Mon 10/1/07	Fri 11/9/07
7	Database Modeling	120 hrs	120 hrs	Mon 11/12/07	Fri 11/30/07
8	ETL Data Flow Devel	400 hrs	400 hrs	Mon 12/3/07	Fri 2/8/08
9	Report Devel	960 hrs	960 hrs	Mon 2/11/08	Fri 7/25/08
10	Testing	160 hrs	160 hrs	Mon 12/1/08	Fri 12/26/08
11	Graduation/Dropouts	1,620 hrs	282.5 days	Wed 10/31/07	Fri 11/28/08
12	Project Mgmt	140 hrs	140 hrs	Wed 10/31/07	Wed 12/12/07
13	System Architecture	240 hrs	240 hrs	Mon 11/12/07	Fri 12/21/07
14	Database Modeling	120 hrs	120 hrs	Mon 12/24/07	Fri 1/11/08
15	ETL Data Flow Devel	400 hrs	400 hrs	Mon 2/11/08	Fri 4/18/08
16	Report Devel	560 hrs	560 hrs	Mon 7/28/08	Fri 10/31/08
17	Testing	160 hrs	160 hrs	Mon 11/3/08	Fri 11/28/08
18	Automate EDEN File Submission	955 hrs	108.5 days	Mon 3/3/08	Thu 7/31/08
19	Project Mgmt	87 hrs	87 hrs	Mon 3/3/08	Mon 3/17/08
20	File Spec Review/Analysis	62 hrs	62 hrs	Mon 3/3/08	Wed 3/12/08
21	Automate File Creation	372 hrs	372 hrs	Wed 3/12/08	Fri 5/16/08
22	Create/Review Files	93 hrs	93 hrs	Fri 5/16/08	Mon 6/2/08
23	Data Steward File Validation	248 hrs	248 hrs	Mon 6/2/08	Tue 7/15/08
24	Submit Files Via EDEN	93 hrs	93 hrs	Tue 7/15/08	Thu 7/31/08
25	Data Dictionary	675 hrs	675 hrs	Mon 6/2/08	Fri 8/26/08
26	LEAP INITIATIVE II	1,050 hrs	131 days	Thu 11/1/07	Thu 5/1/08
27	NTC Electronic Transcript Exchan	1,050 hrs	131 days	Thu 11/1/07	Thu 5/1/08
28	Project Management	100 hrs	100 hrs	Thu 11/1/07	Mon 11/19/07
29	Transcript Standards/Template	600 hrs	600 hrs	Mon 11/5/07	Fri 2/15/08
30	Warehouse Design/Maint	300 hrs	300 hrs	Mon 2/18/08	Wed 4/9/08

ID		Task Name	Work	Duration	Start	Finish
31		Data Dictionary Enhancement	50 hrs	50 hrs	Wed 4/9/08	Thu 4/17/08
32		NTC Fees Year 1	0 hrs	1 hr	Thu 5/1/08	Thu 5/1/08
33		Advisory Committee Meetings	0 hrs	1048 hrs	Thu 11/1/07	Thu 5/1/08
34		LEAP INITIATIVE III	1,250 hrs	280 days?	Mon 11/5/07	Fri 11/28/08
35		Cognos License Expansion	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08
36		8,000 ReportNet/PowerPlay Lic	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08
37		Cognos Professional Services	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08
38		Local Data Analysis & Reporting	1,250 hrs	156.25 days	Mon 11/5/07	Tue 6/10/08
39		Training Material Development	750 hrs	750 hrs	Mon 11/5/07	Thu 3/13/08
40		Single Region Pilot training	500 hrs	500 hrs	Thu 3/13/08	Tue 8/10/08
41		ADDITIONAL PROJECT COSTS (All Incl)	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08
42		Internal Policy Review Board Initiate	0 hrs	131 days?	Mon 10/1/07	Mon 3/31/08
43		3rd party Project Evaluation Services	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08
44		Travel to Grant-related meetings	0 hrs	260 days?	Mon 10/1/07	Fri 9/28/08
45		RFP Proposal Writing	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08
46		Training for CDE staff support	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08
47		YEAR 2 INITIATIVES	6,590 hrs	325 days?	Wed 10/1/08	Tue 12/29/09
48		LEAP INITIATIVE I	4,690 hrs	325 days	Wed 10/1/08	Tue 12/29/09
49		Migrant/Homeless Data	1,040 hrs	252.5 days	Fri 10/31/08	Tue 10/20/09
50		Project Mgmt	100 hrs	100 hrs	Fri 10/31/08	Fri 12/5/08
51		System Architecture	80 hrs	80 hrs	Wed 11/12/08	Tue 11/25/08
52		Database Modeling	180 hrs	180 hrs	Wed 12/10/08	Fri 1/9/09
53		ETL Data Flow Devel	160 hrs	160 hrs	Wed 2/18/09	Tue 3/17/09
54		Report Devel	400 hrs	400 hrs	Wed 7/22/09	Tue 9/29/09
55		Testing	120 hrs	120 hrs	Wed 9/30/09	Tue 10/20/09
56		Teacher Statistics	2,020 hrs	295 days	Wed 10/1/08	Tue 11/17/09
57		Project Mgmt	180 hrs	180 hrs	Wed 10/1/08	Fri 10/31/08
58		System Architecture	240 hrs	240 hrs	Wed 10/1/08	Tue 11/11/08
59		Database Modeling	160 hrs	160 hrs	Wed 11/12/08	Tue 12/9/08
60		ETL Data Flow Devel	400 hrs	400 hrs	Wed 12/10/08	Tue 2/17/09

ID		Task Name	Work	Duration	Start	Finish
61		Report Devel	880 hrs	880 hrs	Wed 2/18/09	Tue 7/21/09
62		Testing	160 hrs	160 hrs	Wed 10/21/09	Tue 11/17/09
63		Automate EDEN File Submission	955 hrs	216 days	Tue 3/3/09	Tue 12/29/09
64		Project Mgmt	87 hrs	87 hrs	Tue 3/3/09	Tue 3/17/09
65		File Spec Review/Analysis	62 hrs	62 hrs	Tue 3/3/09	Thu 3/12/09
66		Automate File Creation	372 hrs	372 hrs	Mon 3/23/09	Tue 5/26/09
67		Create/Review Files	93 hrs	93 hrs	Thu 7/30/09	Mon 8/17/09
68		Data Steward File Validation	248 hrs	248 hrs	Tue 9/1/09	Wed 10/14/09
69		Submit Files Via EDEN	93 hrs	93 hrs	Mon 12/14/09	Tue 12/29/09
70		Data Dictionary	675 hrs	675 hrs	Mon 8/3/09	Fri 11/27/09
71		LEAP INITIATIVE II	450 hrs	66 days	Mon 11/3/08	Mon 2/2/09
72		NTC Electronic Transcript Exchan	450 hrs	66 days	Mon 11/3/08	Mon 2/2/09
73		Project Management	100 hrs	100 hrs	Mon 11/3/08	Wed 11/19/08
74		Warehouse Design/Maint	300 hrs	300 hrs	Mon 11/3/08	Wed 12/24/08
75		Data Dictionary Enhancement	50 hrs	50 hrs	Wed 12/24/08	Thu 1/1/09
76		NTC Fees Year 2	0 hrs	1 hr	Mon 2/2/09	Mon 2/2/09
77		Advisory Committee Meetings	0 hrs	528 hrs	Mon 11/3/08	Mon 2/2/09
78		LEAP INITIATIVE III	1,450 hrs	181.25 days	Mon 11/3/08	Tue 7/14/09
79		Local Data Analysis & Reporting	1,450 hrs	181.25 days	Mon 11/3/08	Tue 7/14/09
80		Evaluation and Refinement	250 hrs	250 hrs	Mon 11/3/08	Tue 12/16/08
81		Multi-Region Training	1,000 hrs	1000 hrs	Tue 12/16/08	Tue 6/9/09
82		Webinar-based Training	200 hrs	200 hrs	Tue 6/9/09	Tue 7/14/09
83		ADDITIONAL PROJECT COSTS (All Init)	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09
84		Travel to Grant-related meetings	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09
85		3rd party Project Evaluation Services	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09
86		Training for CDE staff support	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09
87		YEAR 3 INITIATIVES	5,000 hrs	433 days?	Mon 2/2/09	Wed 9/29/10
88		LEAP INITIATIVE I	3,350 hrs	348 days	Mon 3/2/09	Wed 6/30/10
89		Special Education	1,720 hrs	195 days	Thu 10/1/09	Wed 6/30/10
90		Project Mgmt	160 hrs	160 hrs	Thu 10/1/09	Wed 10/28/09

ID		Task Name	Work	Duration	Start	Finish
91		System Architecture	160 hrs	160 hrs	Thu 10/1/09	Wed 10/28/09
92		Database Modeling	240 hrs	240 hrs	Thu 10/29/09	Wed 12/9/09
93		ETL Data Flow Devel	400 hrs	400 hrs	Thu 12/10/09	Wed 2/17/10
94		Report Devel	560 hrs	560 hrs	Thu 2/18/10	Wed 5/26/10
95		Testing	200 hrs	200 hrs	Thu 5/27/10	Wed 8/30/10
96		Automate EDEN File Submission	966 hrs	205.38 days	Mon 3/2/09	Mon 12/14/09
97		Project Mgmt	87 hrs	87 hrs	Mon 3/2/09	Tue 3/31/09
98		File Spec Review/Analysis	62 hrs	62 hrs	Mon 3/2/09	Mon 3/23/09
99		Automate File Creation	372 hrs	372 hrs	Wed 5/27/09	Thu 7/30/09
100		Create/Review Files	93 hrs	93 hrs	Mon 8/17/09	Tue 9/1/09
101		Data Steward File Validation	248 hrs	248 hrs	Wed 10/14/09	Thu 11/26/09
102		Submit Files Via EDEN	93 hrs	93 hrs	Thu 11/26/09	Mon 12/14/09
103		Data Dictionary	675 hrs	675 hrs	Wed 8/3/09	Tue 9/29/09
104		LEAP INITIATIVE II	450 hrs	262 days	Mon 2/2/09	Tue 2/2/10
105		NTC Electronic Transcript Exchan	450 hrs	262 days	Mon 2/2/09	Tue 2/2/10
106		Project Management	100 hrs	100 hrs	Tue 11/3/09	Thu 11/19/09
107		Warehouse Design/Maint	300 hrs	300 hrs	Tue 11/3/09	Thu 12/24/09
108		Data Dictionary Enhancement	50 hrs	50 hrs	Thu 12/24/09	Fri 1/1/10
109		NTC Fees Year 3	0 hrs	1 hr	Mon 2/2/09	Mon 2/2/09
110		Advisory Committee Meetings	0 hrs	528 hrs	Tue 11/3/09	Tue 2/2/10
111		LEAP INITIATIVE III	1,200 hrs	150 days	Tue 11/3/09	Mon 5/31/10
112		Local Data Analysis & Reporting	1,200 hrs	150 days	Tue 11/3/09	Mon 5/31/10
113		Webinar-based Training	200 hrs	200 hrs	Tue 11/3/09	Mon 12/7/09
114		Multi-Region Training	1,000 hrs	1000 hrs	Tue 12/8/09	Mon 5/31/10
115		ADDITIONAL PROJECT COSTS (All In)	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10
116		Travel to Grant-related meetings	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10
117		3rd party Project Evaluation Services	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10
118		Training for CDE staff support	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10

SECTION J: OPTIONAL ATTACHMENTS (15 page limit)

Attachment A – Letters of Support

KEN SALAZAR
COLORADO

COMMITTEE
AGRICULTURE, NUTRITION, AND FORESTRY
ENERGY AND NATURAL RESOURCES
FINANCE
SPECIAL COMMITTEE ON AGING
SELECT COMMITTEE ON ETHICS

United States Senate

WASHINGTON, DC 20510

WASHINGTON, DC
100 First Street, Second Building
Washington, DC 20510
202-224-6000

COLORADO
1200 West 17th Street
Suite 400
Boulder, CO 80502
303-440-3000
www.senate.gov

March 13, 2007

The Honorable Margaret Spellings
Secretary
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202

Dear Secretary Spellings:

I am writing to express my support for an application submitted by the Colorado Department of Education (CDE) for a Longitudinal Data Systems Grant through the U.S. Department of Education.

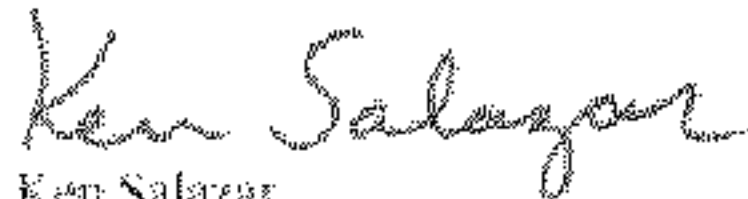
The Colorado Department of Education is seeking this grant in an effort to design, develop and implement longitudinal data systems on a statewide basis. The ability to effectively collect and evaluate longitudinal data is a critical part of any education agency's effort to measure student progress, teacher performance, and overall educational outcomes.

I have been informed that full implementation of CDE's proposal, entitled the "Colorado Longitudinal Data Action Plan," would allow the department to evaluate and disseminate data that is necessary for the state to comply with federal and state education requirements. In addition, it would help provide comprehensive and meaningful information with which education stakeholders – including school districts, schools, teachers, and parents – can work to improve educational outcomes for Colorado's students.

With the vast reservoir of information this grant will help make available, Colorado educators will have another critical resource in their effort to help all children reach their educational potential.

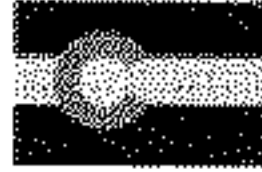
Thank you for your prompt consideration of this matter. Please feel free to contact me or Ashley Wheeland of my staff at 202-228-5434, if you require any additional information.

Sincerely,



Ken Salazar
United States Senator

WASHINGTON, DC 20510



SUE WINDELS
State Senator
13925 West 73rd Avenue
Arvada, Colorado 80005
Home: (303) 421-5405
Capitol: (303) 866-4840
Capitol FAX: (303) 866-4543
E-mail: senatorwindels@comcast.net
Senate District 19

Senate Chamber
State of Colorado
Denver

COMMITTEES:
Chair of:
Education
Member of:
Appropriations
State, Veterans & Military Affairs
Capital Development
Legislative Council

March 13, 2007

The Honorable Margaret Spellings
Secretary
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202

Dear Secretary Spellings:

It has come to my attention that the officials at the Colorado Department of Education (CDE) are submitting an application for a Longitudinal Data Systems Grant under the U.S. Department of Education.

The Colorado Department of Education seeks to design, develop and implement statewide longitudinal data systems. It is my understanding that the CDE's proposal, titled "Colorado Longitudinal Data System" will efficiently and accurately respond to federal and state mandates and meet the multiple information needs of the education stakeholders. Students, teachers, families, schools, and researchers will be able to rely on secure and consistent data to assure that all children reach their highest potential.

I would appreciate your office giving their proposal your consideration. Please feel free to contact me at SenatorWindels@comcast.net or at (303) 866-4840 if you require any additional information.

Very respectfully yours,

Sue Windels
State Senator



NANCY SPENCE
Assistant Minority Leader
State Senator
6330 South Clatsop Street
Centennial, CO 80016
Home (303) 690-5106
Capitol: (303) 866-4883
FAX: (303) 866-2012
nancyspence@qwest.net

Senate Chamber
State of Colorado
Denver

State Capitol
Denver
80203

COMMITTEES
Member of:
Education
Legislative Audit
Legislative Council
Transportation

March 13, 2007

The Honorable Margaret Spellings
Secretary
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202

Dear Secretary Spellings:

It has come to my attention that the officials at the Colorado Department of Education (CDE) are submitting an application for a Longitudinal Systems Grant under the U.S. Department of Education.

The Colorado Department of Education seeks to design, develop and implement statewide longitudinal data systems. It is my understanding that their proposal, titled "Colorado Longitudinal Data System" will efficiently and accurately respond to federal and state mandates and meet the multiple information needs of the education stakeholders. Students, teachers, families, schools and researchers will be able to rely on secure and consistent data to assure that all children reach their highest potential.

I would appreciate your office giving their proposal your consideration. Please feel free to contact me if you require and additional information.

Sincerely,


Nancy Spence
State Senator



STATE OF COLORADO

DEPARTMENT OF HIGHER EDUCATION
Colorado Commission on Higher Education

Bill Ritter, Jr.
Governor

David E. Skaggs
Executive Director

Raymond T. Baker, Chair
Dean L. Quamra, Vice Chair
Richard L. Garcia
Richard L. Ramirez
Edward A. Robinson
Joel Rosenstein
Greg C. Stevinson
James M. Stewart
Judy Weaver

March 13, 2007

The Honorable Margaret Spellings
Secretary
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202

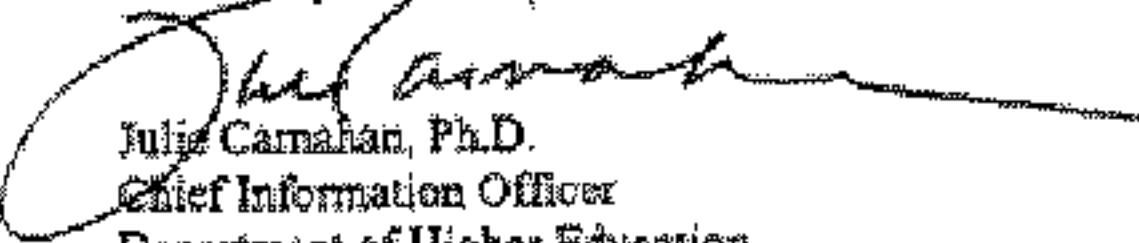
Dear Secretary Spellings:

It has come to my attention that the officials at the Colorado Department of Education (CDE) are submitting an application for a Longitudinal Data Systems Grant under the U.S. Department of Education.

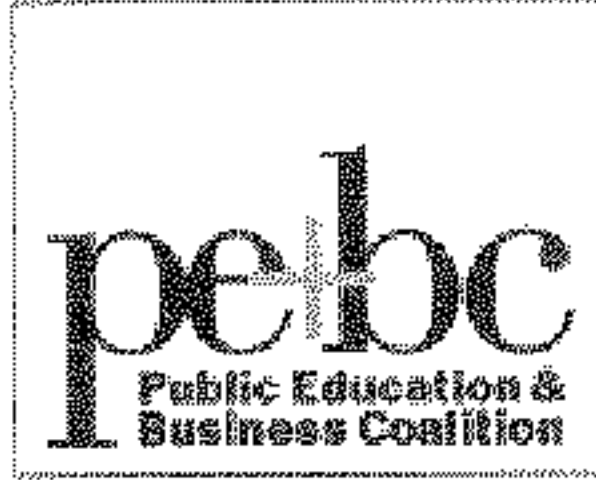
The Colorado Department of Education seeks to design, develop and implement statewide longitudinal data systems. It is my understanding that the CDE's proposal, titled "Colorado Longitudinal Data System" will efficiently and accurately respond to federal and state mandates and meet the multiple information needs of the education stakeholders. Students, teachers, families, schools, and researchers will be able to rely on secure and consistent data to assure that all children reach their highest potential.

I would appreciate your office giving their proposal your consideration. Please feel free to contact me at (303) 866-2723 if you require any additional information.

Very respectfully yours,


Julie Camahan, Ph.D.
Chief Information Officer
Department of Higher Education
1380 Lawrence Street, Suite 1200
Denver, Colorado 80204-2059

1380 Lawrence Street, Suite 1200, Denver, Colorado 80204 • (303) 866-2723 • fax (303) 866-4266
www.state.co.us/cche



The Honorable Margaret Spellings
Secretary
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202

Dear Secretary Spellings:

It is with great enthusiasm that the Board and staff of the Public Education and Business Coalition (PEBC) support the Colorado Department of Education's (CDE) application for a Longitudinal Data Systems Grant.

The PEBC is non profit organization that has, for the past 25 years, provided customized, on-site training for teachers and principals in research-based best instructional practices in literacy K-12, and support in the development of sustainable systems and structures that ensure quality teaching for all students. Assessing and evaluating student academic development, performance and achievement are among the most effective strategies that we employ in our work. And the understanding and use of data among educators is key to student success. Therefore, CDE's plan, through this grant to design, develop and implement statewide longitudinal data systems will provide at the state level the tools all educators need to meet the needs of our students.

It is my understanding that the CDE's proposal, titled "Colorado Longitudinal Data System" will efficiently and accurately respond to federal and state mandates and meet the multiple information needs of the education stakeholders. Students, teachers, families, schools, and researchers will be able to rely on secure and consistent data to assure that all children reach their highest potential. We applaud CDE's efforts in this area and look forward to partnering with them as they develop this data system.

Thank you in advance for the time and attention you will give to this proposal. Please feel free to contact me at 303-861-8661, or via email at rbward@pebc.org if you would like any additional information

Sincerely,

A handwritten signature in black ink, appearing to read "Rosann B. Ward".

Rosann B. Ward
President
PEBC

Public Education & Business Coalition
1410 Grant Street • Suite A-302 • Denver, Colorado 80203
tel. 303.861.8661 fax 303.861.1502 www.pebc.org

Attachment B – CEDAR (Colorado Education Data Analysis and Reporting) Informational Handout



cde

Colorado Department of Education

Dianne E. Kress, Information Systems Director
201 E. Colfax Ave. Denver, CO 80203, (303) 866-8823

CSAP Analysis and Reporting – Easily Manage Your CSAP Data!

<https://cedar.cde.state.co.us/>

Would you like a customizable report to measure and present the progress of students over time so that you can quickly customize a single report to address the needs of many different audiences?

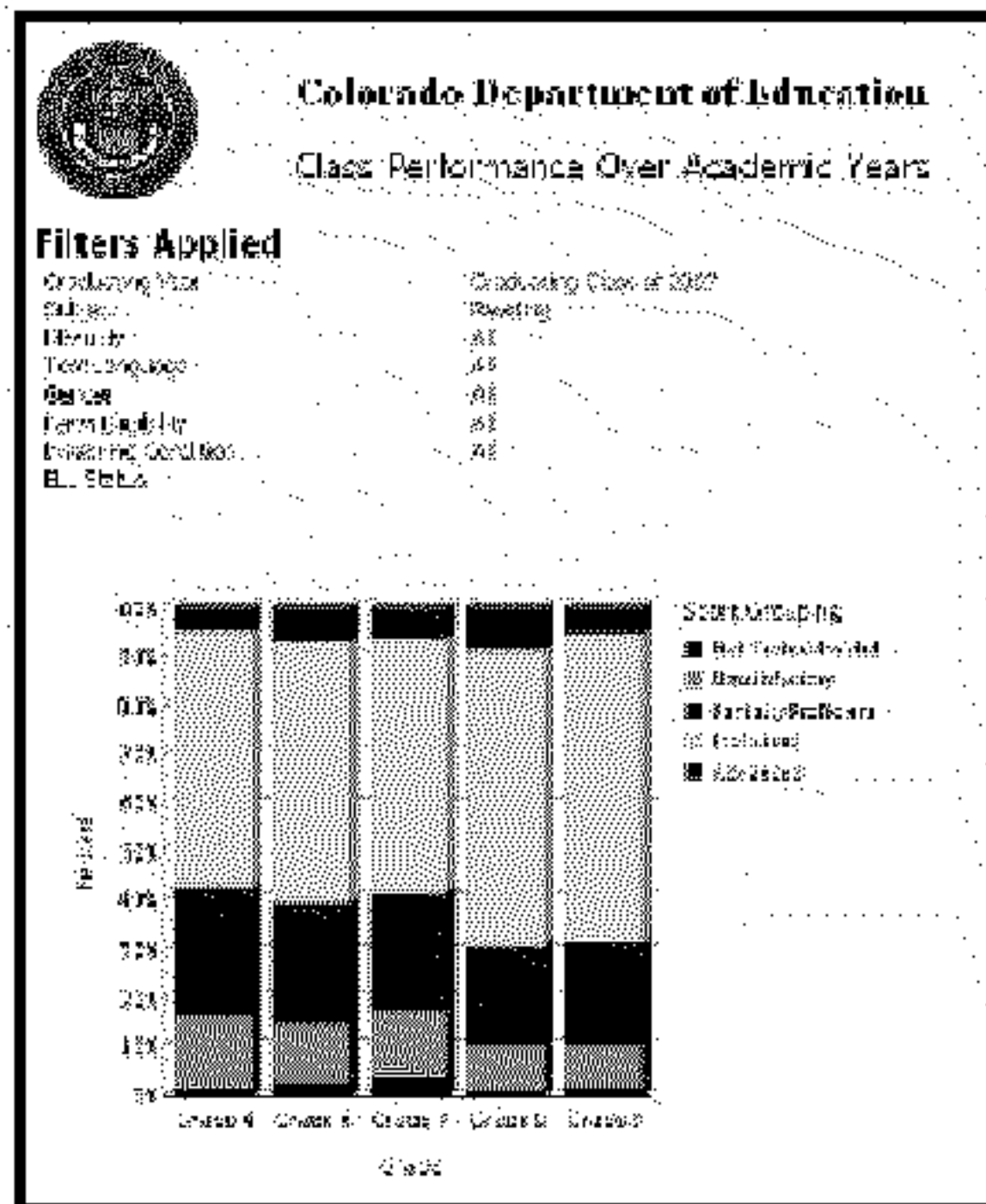
Do you want to more easily access and determine the level at which your Colorado students achieve the Colorado Model Content Standards, Frameworks, Ranges and measures?

The Colorado Student Assessment Program (CSAP) is a standards-based assessment designed to provide a picture of student performance to schools, districts, educators, parents and the community. It provides more than 25 tests in 8 grades. This is a great deal of information to handle – and to manage for internal and external audiences.

We want to help you now with your CSAP Assessment reporting challenges! To help you and your Assessment Teams effectively analyze, customize and present CSAP information and Reports to:

- Boards of Education
- Teachers
- School Specialists
- Principals
- Interested Groups who manage and use CSAP information...

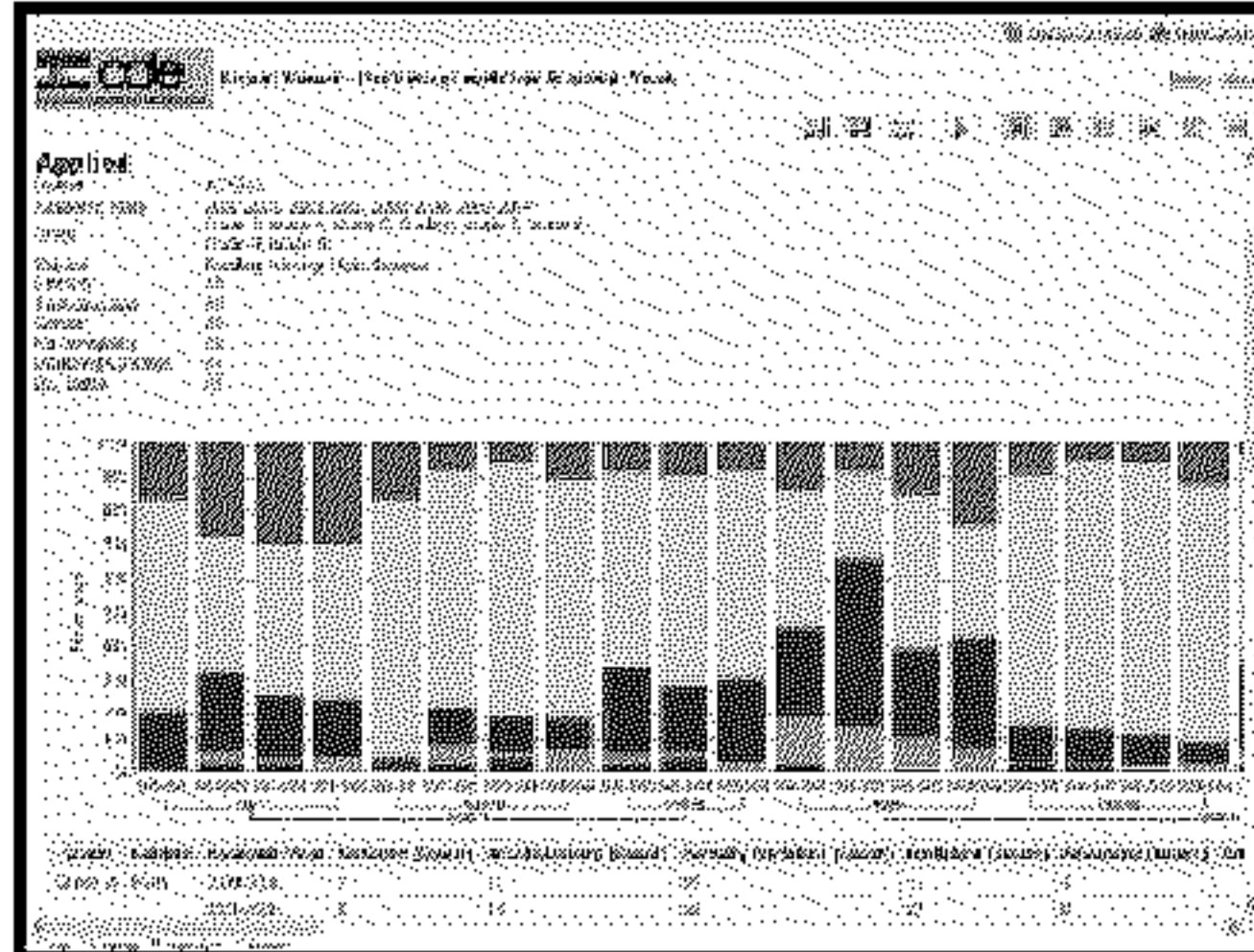
... the CDE has developed new and easy to access Analysis and Managed Query Reports for your use.



If you have missed previous CEDAR training sessions or if you would like a refresher, contact us now to reserve seats at a training session or to talk about having training in your area. Please email the CEDAR Team at cedar@cde.state.co.us.

Analytical and Managed Reports have been developed to help you obtain information to answer questions in minutes not hours or days in the areas of:

- Proficiency Level Over Academic Years
- Class Performance Over Academic Years
- District Comparison By Proficiency Level By Year
- Comparison of Schools to District and State Averages
- CSAP Assessment details and comparisons.



Additional Filters and Prompts help you to examine this data by such groupings as:

- Districts and Schools
- Academic Years
- Gender and Ethnicities
- District FARM Ranges
- School FARM Range
- Migrant
- Subjects
- Proficiency Levels
- Graduating Class
- Regions
- Bi-lingual Status
- Gifted - Talented
- Proficiency Levels
- IEP Status
- Congressional Districts
- District ELL Continuity
- Disability
- Time in District & School
- AYP Proficiency Levels
- Ethnicities
- Grades
- Free - Reduced Meal
- Homeless
- Title 1 Status ...and more!

League PowerTop Web Explorer CSAP Assessment

Search here for school or districts

WILSON COUNTY K-12 0500 215,116 (1,186) All Proficiency Levels All Grades All Schools

Test Count		as % of FOM SUBJECTS														
		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13	Grade 14	
Reading	2001-2002	37.50%	7.50%	15.00%	17.50%	10.00%	10.00%	10.00%	20.00%	20.00%	15.00%	20.00%	20.00%	20.00%	20.00%	20.00%
	2002-2003	14.29%	7.14%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%
	2003-2004	16.25%	6.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%
	2004-2005	17.50%	7.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%
Writing	2001-2002	17.50%	7.50%	15.00%	17.50%	10.00%	10.00%	10.00%	20.00%	20.00%	15.00%	20.00%	20.00%	20.00%	20.00%	20.00%
	2002-2003	17.50%	7.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%
	2003-2004	16.25%	6.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%	16.25%
	2004-2005	17.50%	7.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%
Math	2001-2002	0.00%	0.00%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%	27.15%
	2002-2003	0.00%	0.00%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%
	2003-2004	0.00%	0.00%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%
	2004-2005	0.00%	0.00%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%	26.58%
Science	2001-2002	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	2003-2004	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Attachment C – Cognos Cost Worksheet



**Cognos Corporation
Cost Summary Clarification
February 22, 2007**

(b)(4)

(b)(4)

(b)(4)

Attachment D – National Transcript Center Information

This Architecture Solves Our Intrastate and Interstate Problems

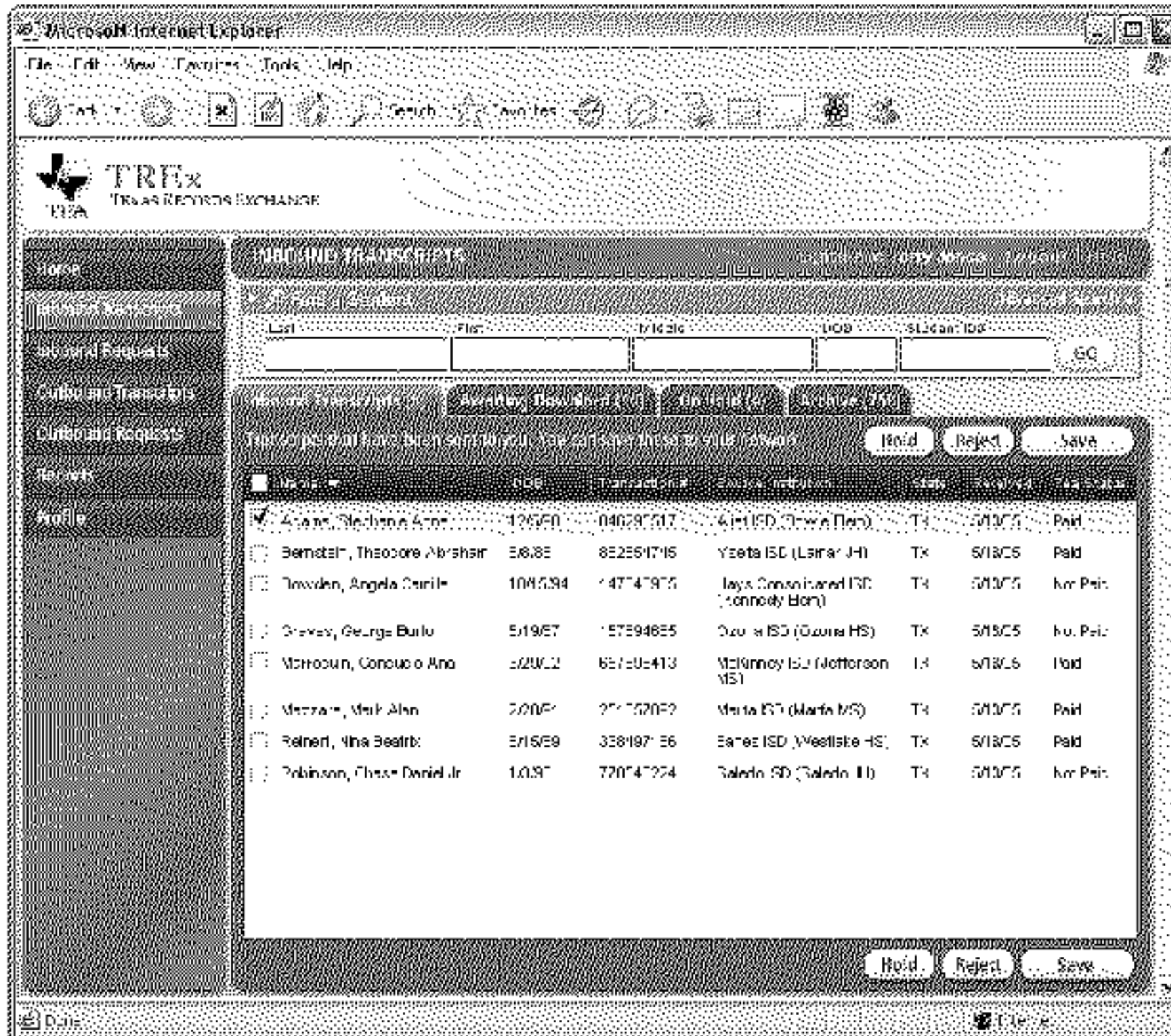
The National Transcript Center is a collaborative of states interested in deploying a highly secure, FERPA compliant, and very cost effective e-transcript portal for their LEA's. Our state's SEA portal would not only facilitate intrastate record exchange among the districts in our state, but it would also facilitate *interstate* exchange to other/neighboring states (easing our pain with student mobility) and to postsecondary institutions. It also will provide excellent means for longitudinal analysis.

Solution Architecture

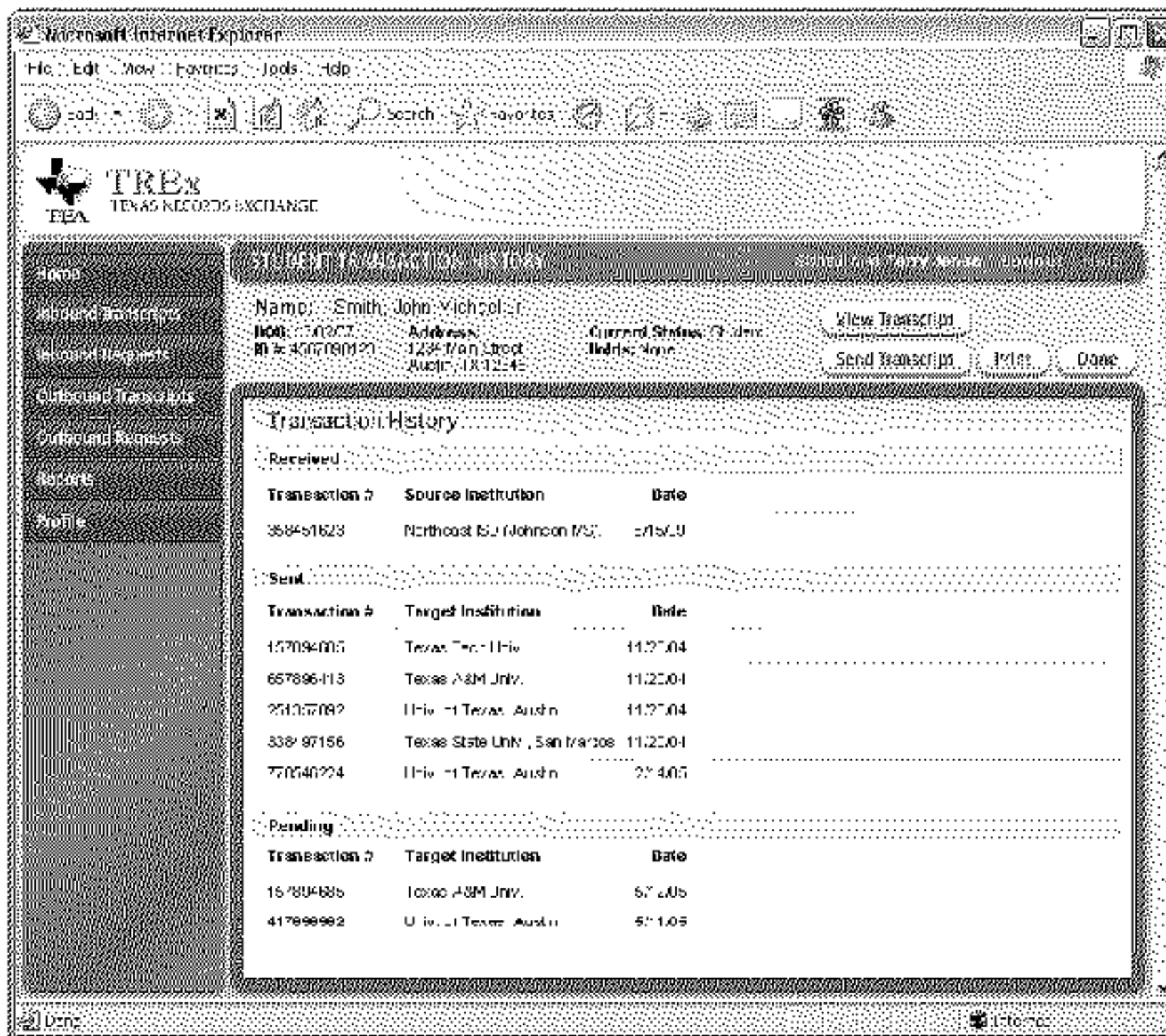
- Three-tier, services-oriented architecture brings leading edge technology to the E-Transcript System solution – from the beginning
- National standards are supported, inc. PESC (XML), SIF (XML), SPEEDE (EDI), and ASCII
- Light footprint client – accessed through a simple web browser with no plug-ins required
- Standards-based platforms instill flexibility from the ground up
- Easy-to-use interface designed by our SEA in conjunction with NTC
- Scalability, reliability, security, modularity, extensibility
-

Example Screenshots of a State E-Transcript Portal on NTC

Please note that these screenshots are EXAMPLES ONLY. These screenshots are not intended to indicate that our state's user interface design is complete or set in stone. Rather, *NTC will work with our SEA to create, tailor, and test a new state-specific interface.*



Users can view, print, or save records/transcripts sent to them from other schools



One historical view of a student's transaction history

Data Format Standards

- Our system supports the most recent two releases of the EDI and XML standards, including:

- Postsecondary Education Standards Council (PESC) College Transcript XML standard
- ANSI X.12 EDI College Transcript (SPEEDE Committee of AACRAO) standard
- In addition, the National Transcript Center will also support the:
 - Schools Interoperability Framework (SIF) E-Transcript Profile
 - ESP chairs the SIF E-Transcript Working Group
 - PESC XML High School transcript standard
 - ESP personnel are on the PESC XML High School Transcript workgroup
- ***NTC is committed to supporting OPEN standards, not proprietary vendor standards***
- As more become prevalent, NTC will be leading the charge to crosswalk those and integrate them into our Data Translation Engine

FERPA and Privacy Compliance

- NTC/ESP IS ABSOLUTELY COMMITTED TO PROTECTING AND MASKING THE IDENTITIES OF RECORD HOLDERS in situations that are outside the parameters of FERPA

Application Security

- Member institutions will transact with the E-Transcript Initiative only through highly secure HTTPS Internet connections.
 - 128-bit SSL digital certificates
- NTC employs policies, procedures, and technical protocols that prevent the unauthorized use or disclosure of confidential information.
 - Crucial given the confidential nature of student records
- NTC uses Extreme Networks' multi-layered security to safeguard our network.
 - Airtight authentication blocks users at the switch, until they've been approved.
- Extensive Access Control Lists (ACLs) make it easy to apply policies that keep users from reaching restricted resources.
 - This approach helps defend against Denial of Service (DoS) attacks without degrading application performance and allow us to integrate intrusion prevention systems within the network.

Physical/Hosted Security

- Hosted at co-location facilities around the country
- First facility: in New York. Same facility used by large multinational banks to process billions of dollars in transactions a day.
- Onsite security at our facility is provided by a combination of biometric hand scanners, electronic card control systems, hi-resolution motion sensitive digital video surveillance systems and onsite personnel.
- NTC's hardware configuration provides hot-site, fail-safe redundancy

Training Program Overview

- We recommend that all users take a **Web-Based Training (WBT) course** as an overview to the E-Transcript Initiative to help them understand the big picture.
- Each user will have access to a **User Manual *customized for their user level***
- Trainers will lead **Instructor Led Training (ILT) courses**
- **Online help** will also be designed into the system, so that users can find answers to their questions as they arise.
- In addition, we will manage a **Knowledge Transfer** process with your SEA personnel.

Support Overview

- NTC provides a Customer Support Help Desk for the E-Transcript Initiative users, including SEA and school district personnel.

Project Narrative

Other Narrative

Attachment 1:

Title: Pages: Uploaded File: **2352-Mandatory_LDS_GRANT_SECTION_D_Budget_Line_Items.pdf**

SECTION D: Budget Information

This section must provide an itemized budget breakdown for each project year, for each budget category listed in Sections B and C.

Year 1 Budget Breakdown

\$5,000	Travel	To IES Grant Meetings (see budget detail plan line 44)
\$1,000,000	Equipment	Cognos License Expansion (see budget detail line 36)
\$1,570,884	Contractual	All Initiatives (see budget detail lines 2-46)
\$2,575,884 total Year 1		

Year 2 Budget Breakdown

\$5,000	Travel	To IES Grant Meetings (see budget detail plan line 84)
\$901,996	Contractual	All Initiatives (see budget detail lines 47-86)
\$906,996 total Year 2		

Year 3 Budget Breakdown

\$5,000	Travel	To IES Grant Meetings (see budget detail plan line 116)
\$756,639	Contractual	All Initiatives (see budget detail lines 87-118)
\$761,639 total Year 3		

Total Grant Request Amount - \$4,244,519

Budget Detail per Project Plan Follows:

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
1	Longitudinal Grant Project	19,200 hrs	783 days?	Mon 10/1/07	Wed 9/29/10			\$4,244,519.00
2	YEAR 1 INITIATIVES	7,810 hrs	325 days?	Mon 10/1/07	Fri 12/28/08			\$2,575,884.00
3	LEAP INITIATIVE I	5,310 hrs	325 days	Mon 10/1/07	Fri 12/26/08			\$557,525.00
4	Longitudinal Analysis	2,060 hrs	325 days	Mon 10/1/07	Fri 12/26/08			\$215,500.00
5	Project Mgmt	180 hrs	180 hrs	Mon 10/1/07	Wed 10/31/07		Project Manager	\$31,500.00
6	System Architecture	240 hrs	240 hrs	Mon 10/1/07	Fri 11/9/07		System Architect	\$28,800.00
7	Database Modeling	120 hrs	120 hrs	Mon 11/12/07	Fri 11/30/07	6	Database Modeler	\$14,400.00
8	ETL Data Flow Devel	400 hrs	400 hrs	Mon 12/3/07	Fri 2/8/08	7	ETL Developer	\$40,000.00
9	Report Devel	560 hrs	560 hrs	Mon 2/11/08	Fri 7/25/08	8	Application Developer	\$66,400.00
10	Testing	160 hrs	160 hrs	Mon 12/1/08	Fri 12/26/08	9	Application Developer	\$14,400.00
11	Graduation/Dropouts	1,620 hrs	262.5 days	Wed 10/31/07	Fri 11/29/08			\$172,500.00
12	Project Mgmt	140 hrs	140 hrs	Wed 10/31/07	Wed 12/12/07		Project Manager	\$24,500.00
13	System Architecture	240 hrs	240 hrs	Mon 11/12/07	Fri 12/21/07		System Architect	\$28,800.00
14	Database Modeling	120 hrs	120 hrs	Mon 12/24/07	Fri 1/11/08	13	Database Modeler	\$14,400.00
15	ETL Data Flow Devel	400 hrs	400 hrs	Mon 2/11/08	Fri 4/18/08	14	ETL Developer	\$40,000.00
16	Report Devel	560 hrs	560 hrs	Mon 7/28/08	Fri 10/31/08	15	Application Developer	\$60,400.00
17	Testing	160 hrs	160 hrs	Mon 11/3/08	Fri 11/28/08	16	Application Developer	\$14,400.00
18	Automate EDEN File Submission	955 hrs	108.5 days	Mon 3/3/08	Thu 7/31/08			\$102,025.00
19	Project Mgmt	87 hrs	87 hrs	Mon 3/3/08	Mon 3/17/08		Project Manager	\$15,225.00
20	File Specs Review/Analysis	62 hrs	62 hrs	Mon 3/3/08	Wed 3/12/08		Warehouse Developer	\$6,200.00
21	Automate File Creation	372 hrs	372 hrs	Wed 3/12/08	Fri 5/16/08	20	Warehouse Developer	\$37,200.00
22	Create/Review Files	93 hrs	93 hrs	Fri 5/16/08	Mon 6/2/08	21	Warehouse Developer	\$9,300.00
23	Data Steward File Validation	248 hrs	248 hrs	Mon 6/2/08	Tue 7/15/08	22	Warehouse Developer	\$24,800.00
24	Submit Files via EDEN	93 hrs	93 hrs	Tue 7/15/08	Thu 7/31/08	23	Warehouse Developer	\$9,300.00
25	Data Dictionary	675 hrs	675 hrs	Mon 6/2/08	Fri 9/26/08		Document Specialist	\$67,500.00
26	LEAP INITIATIVE II	1,050 hrs	131 days	Thu 11/1/07	Thu 5/1/08			\$525,359.00
27	NTC Electronic Transcript Exchan	1,050 hrs	131 days	Thu 11/1/07	Thu 5/1/08			\$525,359.00
28	Project Management	100 hrs	100 hrs	Thu 11/1/07	Mon 11/19/07		Project Manager	\$17,500.00
29	Transcript Standards Template	600 hrs	600 hrs	Mon 11/5/07	Fri 2/15/08		Transcript Analyst	\$60,000.00
30	Warehouse Design/Maint	300 hrs	300 hrs	Mon 2/18/08	Wed 4/9/08	29	Warehouse Architect	\$36,000.00

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
31	Data Dictionary Enhancement	50 hrs	50 hrs	Wed 4/9/08	Thu 4/17/08 : 30		Document Specialist	\$5,000.00
32	NTC Fees Year 1	0 hrs	1 hr	Thu 5/1/08	Thu 5/1/08		NTC Fees Year 1(1)	\$366,859.00
33	Advisory Committee Meetings	0 hrs	1048 hrs	Thu 11/1/07	Thu 5/1/08		Advisory Committee M	\$10,000.00
34	LEAP INITIATIVE III	1,250 hrs	280 days?	Mon 11/5/07	Fri 11/28/08			\$1,295,000.00
35	Cognos License Expansion	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08			\$1,170,000.00
36	8,000 ReportNet/PowerPlay Lic	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08		Cognos License Expan	\$1,000,000.00
37	Cognos Professional Services	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08		Cognos Professional S	\$170,000.00
38	Local Data Analysis & Reporting	1,260 hrs	156.25 days	Mon 11/5/07	Tue 6/10/08			\$725,000.00
39	Training Material Development	750 hrs	750 hrs	Mon 11/5/07	Thu 3/13/08		COGNOS Trainer	\$75,000.00
40	Single Region Pilot training	500 hrs	500 hrs	Thu 3/13/08	Tue 6/10/08 : 39		COGNOS Trainer	\$50,000.00
41	ADDITIONAL PROJECT COSTS (All Init	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08			\$198,000.00
42	Internal Policy Review Board Initiate	0 hrs	131 days?	Mon 10/1/07	Mon 3/31/08		Policy Review Board I	\$48,000.00
43	3rd party Project Evaluation Services	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08		Project Evaluation(1)	\$100,000.00
44	Travel to Grant-related meetings	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08		Travel(1)	\$5,000.00
45	RFP Proposal Writing	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08		RFP Writer(1)	\$50,000.00
46	Training for CODE staff support	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08		Support Staff Training	\$15,000.00
47	YEAR 2 INITIATIVES	6,590 hrs	325 days?	Wed 10/1/08	Tue 12/29/09			\$906,896.00
48	LEAP INITIATIVE I	4,690 hrs	325 days	Wed 10/1/08	Tue 12/29/09			\$494,126.00
49	Migrant/Homesless Data	1,040 hrs	252.5 days	Fri 10/31/08	Tue 10/20/09			\$111,600.00
50	Project Mgmt	100 hrs	100 hrs	Fri 10/31/08	Fri 12/5/08		Project Manager	\$17,500.00
51	System Architecture	80 hrs	80 hrs	Wed 11/12/08	Tue 11/25/08		System Architect	\$9,600.00
52	Database Modeling	180 hrs	180 hrs	Wed 12/10/08	Fri 18/09 : 51		Database Modeler	\$21,600.00
53	ETL Data Flow Devel	160 hrs	160 hrs	Wed 2/18/09	Tue 3/17/09 : 52		ETL Developer	\$16,000.00
54	Report Devel	400 hrs	400 hrs	Wed 7/22/09	Tue 8/25/09 : 53		Application Developer	\$36,000.00
55	Testing	120 hrs	120 hrs	Wed 9/30/09	Tue 10/20/09 : 54		Application Developer	\$10,800.00
56	Teacher Statistics	2,020 hrs	295 days	Wed 10/1/08	Tue 11/17/09			\$213,100.00
57	Project Mgmt	180 hrs	180 hrs	Wed 10/1/08	Fri 10/31/08		Project Manager	\$31,500.00
58	System Architecture	240 hrs	240 hrs	Wed 10/1/08	Tue 11/11/08		System Architect	\$26,800.00
59	Database Modeling	160 hrs	160 hrs	Wed 11/12/08	Tue 12/9/08 : 58		Database Modeler	\$19,200.00
60	ETL Data Flow Devel	400 hrs	400 hrs	Wed 12/10/08	Tue 2/17/09 : 59		ETL Developer	\$40,000.00

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
61	Report Devel	888 hrs	350 hrs	Wed 2/18/09	Tue 7/21/09	60	Application Developer	\$79,200.00
62	Testing	160 hrs	150 hrs	Wed 10/21/09	Tue 11/17/09	61	Application Developer	\$14,400.00
63	Automate EDEN File Submission	956 hrs	216 days	Tue 3/3/09	Tue 12/29/09		Project Manager	\$102,025.00
64	Project Mgmt	87 hrs	87 hrs	Tue 3/3/09	Tue 3/17/09		Warehouse Developer	\$15,225.00
65	File Spec Review/Analysis	62 hrs	62 hrs	Tue 3/3/09	Thu 3/12/09		Warehouse Developer	\$6,200.00
66	Automate File Creation	372 hrs	372 hrs	Mon 3/23/09	Tue 5/26/09	65	Warehouse Developer	\$37,200.00
67	Create/Review Files	93 hrs	93 hrs	Thu 7/30/09	Mon 8/17/09	66	Warehouse Developer	\$9,300.00
68	Data Steward File Validation	249 hrs	249 hrs	Tue 9/1/09	Wed 10/14/09	67	Warehouse Developer	\$24,900.00
69	Submit Files via EDEN	93 hrs	93 hrs	Mon 12/14/09	Tue 12/29/09	66	Warehouse Developer	\$9,300.00
70	Data Dictionary	675 hrs	675 hrs	Mon 8/3/09	Fri 11/27/09		Document Specialist	\$67,500.00
71	LEAP INITIATIVE II	450 hrs	66 days	Mon 11/3/08	Mon 2/2/09			\$147,871.00
72	NTC Electronic Transcript Exchan	450 hrs	66 days	Mon 11/3/08	Mon 2/2/09			\$147,871.00
73	Project Management	100 hrs	100 hrs	Mon 11/3/08	Wed 11/19/08		Project Manager	\$17,500.00
74	Warehouse Design/Maint	300 hrs	300 hrs	Mon 11/3/08	Wed 12/24/08		Warehouse Architect	\$36,000.00
75	Data Dictionary Enhancement	50 hrs	50 hrs	Wed 12/24/08	Thu 1/1/09	74	Document Specialist	\$5,000.00
76	NTC Fees Year 2	0 hrs	1 hr	Mon 2/2/09	Mon 2/2/09		NTC Fees Year 2(1)	\$79,371.00
77	Advisory Committee Meetings	0 hrs	528 hrs	Mon 11/3/08	Mon 2/2/09		Advisory Committee M	\$10,000.00
78	LEAP INITIATIVE III	1,450 hrs	181.25 days	Mon 11/3/08	Tue 7/14/09			\$145,000.00
79	Local Data Analysis & Reporting	1,450 hrs	181.25 days	Mon 11/3/08	Tue 7/14/09			\$145,000.00
80	Evaluation and Refinement	250 hrs	250 hrs	Mon 11/3/08	Tue 12/16/08		COGNOS Trainer	\$25,000.00
81	Multi-Region Training	1,000 hrs	1000 hrs	Tue 12/16/08	Tue 6/9/09	80	COGNOS Trainer	\$100,000.00
82	Webinar-based Training	200 hrs	200 hrs	Tue 6/9/09	Tue 7/14/09	61	COGNOS Trainer	\$20,000.00
83	ADDITIONAL PROJECT COSTS (All Init	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09			\$120,000.00
84	Travel to Grant-related meetings	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09		Travel(1)	\$5,000.00
85	3rd party Project Evaluation Services	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09		Project Evaluation(1)	\$100,000.00
86	Training for CDE staff support	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09		Support Staff Training	\$15,000.00
87	YEAR 3 INITIATIVES	5,000 hrs	433 days?	Mon 2/2/09	Wed 9/29/10			\$761,639.00
88	LEAP INITIATIVE I	3,350 hrs	348 days	Mon 3/2/09	Wed 8/30/10			\$353,925.00
89	Special Education	1,720 hrs	195 days	Thu 10/1/09	Wed 6/30/10			\$184,400.00
90	Project Mgmt	160 hrs	150 hrs	Thu 10/1/09	Wed 10/28/09		Project Manager	\$28,000.00

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
91	System Architecture	160 hrs	160 hrs	Thu 10/1/09	Wed 10/28/09		System Architect	\$19,200.00
92	Database Modeling	240 hrs	240 hrs	Thu 10/29/09	Wed 12/9/09	91	Database Modeler	\$28,800.00
93	ETL Data Flow Devel	400 hrs	400 hrs	Thu 12/10/09	Wed 2/17/10	92	ETL Developer	\$40,000.00
94	Report Devel	560 hrs	560 hrs	Thu 2/18/10	Wed 5/26/10	93	Application Developer	\$50,400.00
95	Testing	200 hrs	200 hrs	Thu 5/27/10	Wed 8/30/10	94	Application Developer	\$18,000.00
96	Automate EDEN File Submission	856 hrs	205.38 days	Mon 3/2/09	Mon 12/14/09			\$102,025.00
97	Project Mgmt	87 hrs	87 hrs	Mon 3/2/09	Tue 3/23/09		Project Manager	\$15,225.00
98	File Spec Review/Analysis	62 hrs	62 hrs	Mon 3/2/09	Mon 3/23/09		Warehouse Developer	\$6,200.00
99	Automate File Creation	372 hrs	372 hrs	Wed 5/27/09	Thu 7/30/09	98	Warehouse Developer	\$37,200.00
100	Create/Review Files	93 hrs	93 hrs	Mon 6/1/09	Tue 9/1/09	99	Warehouse Developer	\$9,300.00
101	Data Steward File Validation	248 hrs	248 hrs	Wed 10/14/09	Thu 11/26/09	100	Warehouse Developer	\$24,800.00
102	Submit Files Via EDEN	93 hrs	93 hrs	Thu 11/26/09	Mon 12/14/09	101	Warehouse Developer	\$9,300.00
103	Data Dictionary	675 hrs	675 hrs	Wed 6/3/09	Tue 8/28/09		Document Specialist	\$67,500.00
104	LEAP INITIATIVE II	450 hrs	262 days	Mon 2/2/09	Tue 2/2/10			\$167,714.00
105	NTC Electronic Transcript Exchan	450 hrs	262 days	Mon 2/2/09	Tue 2/2/10			\$167,714.00
106	Project Management	100 hrs	100 hrs	Tue 11/3/09	Thu 11/19/09		Project Manager	\$17,500.00
107	Warehouse Design/Maint	300 hrs	300 hrs	Tue 11/3/09	Thu 12/24/09		Warehouse Architect	\$36,000.00
108	Data Dictionary Enhancement	50 hrs	50 hrs	Thu 12/24/09	Fri 1/1/10	107	Document Specialist	\$5,000.00
109	NTC Fees Year 3	0 hrs	1 hr	Mon 2/2/09	Mon 2/2/09		NTC Fees Year 3[1]	\$99,214.00
110	Advisory Committee Meetings	0 hrs	528 hrs	Tue 11/3/09	Tue 2/2/10		Advisory Committee M	\$10,000.00
111	LEAP INITIATIVE III	1,200 hrs	150 days	Tue 11/3/09	Mon 5/31/10			\$120,000.00
112	Local Data Analysis & Reporting	1,200 hrs	150 days	Tue 11/3/09	Mon 5/31/10			\$120,000.00
113	Webinar-based Training	200 hrs	200 hrs	Tue 11/3/09	Mon 12/7/09		COGNOS Trainer	\$20,000.00
114	Multi-Region Training	1,000 hrs	1000 hrs	Tue 12/8/09	Mon 5/31/10	113	COGNOS Trainer	\$100,000.00
115	ADDITIONAL PROJECT COSTS (All Init	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10			\$120,000.00
116	Travel to Grant-related meetings	0 hrs	260 days?	Thu 10/1/09	Wed 8/29/10		Travel[1]	\$5,000.00
117	3rd party Project Evaluation Services	0 hrs	260 days?	Thu 10/1/09	Wed 8/29/10		Project Evaluation[1]	\$100,000.00
118	Training for CDE staff support	0 hrs	260 days?	Thu 10/1/09	Wed 8/29/10		Support Staff Training	\$15,000.00

Budget Detail Listed Above.

Total Grant Request Amount - \$4,244,519

Budget Narrative

Budget Narrative

Attachment 1:

Title: Pages: Uploaded File: **3640-Mandatory_LDSGRANT_SECTION_I_Budget_Narrative.pdf**

SECTION I: BUDGET NARRATIVE

The Colorado Department of Education (CDE) is requesting a total of \$4,244,519 over three years for its Longitudinal Education Data Action Plan (LEAP). CDE has identified 3 key initiatives of the LEAP plan that are outlined below along with associated costs. Detailed costs down to a project plan level are also included in this section.

Budget Analysis by Initiatives:

LEAP INITIATIVE I – Data Warehouse Expansion

Year 1	
Longitudinal Analysis	\$215,500
Graduation/Dropouts	\$172,500
Automate EDEN File Generation	\$102,025
Data Dictionary	\$67,500
Total Year 1	\$557,525
Year 2	
Migrant/Homeless Data	\$111,500
Teacher Statistics	\$213,100
Automate EDEN File Generation	\$102,025
Data Dictionary	\$67,500
Total Year 2	\$494,125
Year 3	
Special Education	\$184,400
Automate EDEN File Generation	\$102,025
Data Dictionary	\$67,500
Total Year 3	\$353,925
Total LEAP INITIATIVE I	\$1,405,575

LEAP INITIATIVE II – Transcripts

Year 1	
National Transcript Center Electronic Exchange Phase 1	\$525,359
Year 2	
National Transcript Center Electronic Exchange Phase 2	\$147,871
Year 3	
National Transcript Center Electronic Exchange Phase 3	\$167,714
TOTAL LEAP INITIATIVE II	\$840,944

LEAP INITIATIVE III - Rapid expansion of Local Data Analysis and Reporting

Year 1		
	Cognos License Expansion	\$1,170,000
	Local Data Analysis & Report Development/Training	\$125,000
	Total Year 1	\$1,295,000
Year 2		
	Local Data Analysis & Report Development/Training	\$145,000
Year 3		
	Local Data Analysis & Report Development/Training	\$120,000
	TOTAL LEAP INITIATIVE III	1,560,000

ADDITIONAL PROJECT COSTS (For All Initiatives)

Year 1		
	RFPs, Policy Initiation, Proj. Eval, Staff Training, Travel	\$198,000
Year 2		
	3 rd Party Project Evaluation, Staff Training, Travel	\$120,000
Year 3		
	3 rd Party Project Evaluation, Staff Training, Travel	\$120,000
	TOTAL ADDITIONAL PROJECT COSTS	\$438,000

GRAND TOTAL LONGITUDINAL GRANT REQUEST \$4,244,519

Budget Detail per Project Plan Follows:

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
1	Longitudinal Grant Project	19,200 hrs	763 days?	Mon 10/1/07	Wed 9/29/10			\$4,244,519.00
2	YEAR 1 INITIATIVES	7,610 hrs	325 days?	Mon 10/1/07	Fri 12/28/08			\$2,575,884.00
3	LEAP INITIATIVE I	5,310 hrs	325 days	Mon 10/1/07	Fri 12/26/08			\$557,525.00
4	Longitudinal Analysis	2,060 hrs	325 days	Mon 10/1/07	Fri 12/26/08			\$215,500.00
5	Project Mgmt	180 hrs	130 hrs	Mon 10/1/07	Wed 10/31/07		Project Manager	\$31,500.00
6	System Architecture	240 hrs	240 hrs	Mon 10/1/07	Fri 1/19/07		System Architect	\$28,800.00
7	Database Modeling	120 hrs	120 hrs	Mon 11/12/07	Fri 1/13/07	6	Database Modeler	\$14,400.00
8	ETL Data Flow Devel	400 hrs	400 hrs	Mon 12/3/07	Fri 2/8/08	7	ETL Developer	\$40,000.00
9	Report Devel	960 hrs	960 hrs	Mon 2/11/08	Fri 7/25/08	8	Application Developer	\$86,400.00
10	Testing	160 hrs	160 hrs	Mon 12/1/08	Fri 12/26/08	9	Application Developer	\$14,400.00
11	Graduation/Dropouts	1,620 hrs	282.5 days	Wed 10/31/07	Fri 4/12/08			\$172,500.00
12	Project Mgmt	140 hrs	140 hrs	Wed 10/31/07	Wed 12/12/07		Project Manager	\$24,500.00
13	System Architecture	240 hrs	240 hrs	Mon 11/12/07	Fri 12/21/07		System Architect	\$26,800.00
14	Database Modeling	120 hrs	120 hrs	Mon 12/24/07	Fri 1/11/08	13	Database Modeler	\$14,400.00
15	ETL Data Flow Devel	400 hrs	400 hrs	Mon 2/11/08	Fri 4/18/08	14	ETL Developer	\$40,000.00
16	Report Devel	560 hrs	560 hrs	Mon 7/28/08	Fri 10/31/08	15	Application Developer	\$50,400.00
17	Testing	160 hrs	160 hrs	Mon 11/3/08	Fri 11/28/08	16	Application Developer	\$14,400.00
18	Automate EDEN File Submission	955 hrs	108.5 days	Mon 3/3/08	Thu 7/31/08			\$102,025.00
19	Project Mgmt	87 hrs	87 hrs	Mon 3/3/08	Mon 3/17/08		Project Manager	\$15,225.00
20	File Spec Review/Analysis	62 hrs	62 hrs	Mon 3/3/08	Wed 3/12/08		Warehouse Developer	\$6,200.00
21	Automate File Creation	372 hrs	372 hrs	Wed 3/12/08	Fri 5/16/08	20	Warehouse Developer	\$37,200.00
22	Create/Review Files	93 hrs	93 hrs	Fri 5/16/08	Mon 6/2/08	21	Warehouse Developer	\$9,300.00
23	Data Steward File Validation	248 hrs	248 hrs	Mon 6/2/08	Tue 7/15/08	22	Warehouse Developer	\$24,800.00
24	Submit Files Via EDEN	93 hrs	93 hrs	Tue 7/15/08	Thu 7/31/08	23	Warehouse Developer	\$9,300.00
25	Data Dictionary	675 hrs	675 hrs	Mon 6/2/08	Fri 9/26/08		Document Specialist	\$67,500.00
26	LEAP INITIATIVE II	1,050 hrs	131 days	Thu 11/1/07	Thu 5/1/08			\$525,359.00
27	NTC Electronic Transcript Exchan	1,050 hrs	131 days	Thu 11/1/07	Thu 5/1/08			\$525,359.00
28	Project Management	100 hrs	100 hrs	Thu 11/1/07	Mon 11/19/07		Project Manager	\$17,500.00
29	Transcript Standards Template	600 hrs	600 hrs	Mon 11/5/07	Fri 2/15/08		Transcript Analyst	\$60,000.00
30	Warehouse Design/Maint	300 hrs	300 hrs	Mon 2/18/08	Wed 4/9/08	29	Warehouse Architect	\$36,000.00

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
31	Data Dictionary Enhancement	50 hrs	50 hrs	Wed 4/9/08	Thu 4/17/08	30	Document Specialist	\$5,000.00
32	NTC Fees Year 1	0 hrs	1 hr	Thu 5/1/08	Thu 5/1/08		NTC Fees Year 1(1)	\$396,859.00
33	Advisory Committee Meetings	0 hrs	1048 hrs	Thu 11/1/07	Thu 5/1/08		Advisory Committee M	\$10,000.00
34	LEAP INITIATIVE III	1,250 hrs	288 days?	Mon 11/5/07	Fri 11/28/08			\$1,295,000.00
35	Cognos License Expansion	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08			\$1,170,000.00
36	3,000 ReportNetPowerPlay Lic	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08		Cognos License Expat	\$1,000,000.00
37	Cognos Professional Services	0 hrs	260 days?	Mon 12/3/07	Fri 11/28/08		Cognos Professional S	\$170,000.00
38	Local Data Analysis & Reporting	1,250 hrs	156.25 days	Mon 11/5/07	Tue 6/10/08			\$125,000.00
39	Training Material Development	750 hrs	750 hrs	Mon 11/5/07	Thu 3/13/08		COGNOS Trainer	\$75,000.00
40	Single Region Pilot training	500 hrs	500 hrs	Thu 3/13/08	Tue 6/10/08	39	COGNOS Trainer	\$50,000.00
41	ADDITIONAL PROJECT COSTS (All init	0 hrs	260 days?	Mon 10/1/07	Fri 9/26/08			\$198,000.00
42	Internal Policy Review Board Initiate	0 hrs	131 days?	Mon 10/1/07	Mon 3/31/08		Policy Review Board H	\$48,000.00
43	3rd party Project Evaluation Services	0 hrs	260 days?	Mon 10/1/07	Fri 8/26/08		Project Evaluation(1)	\$100,000.00
44	Travel to Grant-related meetings	0 hrs	260 days?	Mon 10/1/07	Fri 8/26/08		Travel(1)	\$5,000.00
45	RFP Proposal Writing	0 hrs	260 days?	Mon 10/1/07	Fri 8/26/08		RFP Writer(1)	\$30,000.00
46	Training for CDE staff support	0 hrs	260 days?	Mon 10/1/07	Fri 8/26/08		Support Staff Training	\$15,000.00
47	YEAR 2 INITIATIVES	6,590 hrs	325 days?	Wed 10/1/08	Tue 12/29/09			\$906,996.00
48	LEAP INITIATIVE I	4,680 hrs	325 days	Wed 10/1/08	Tue 12/29/09			\$484,125.00
49	Migrant/Homeless Data	1,040 hrs	252.5 days	Fri 10/31/08	Tue 10/26/09			\$111,600.00
50	Project Mgmt	100 hrs	100 hrs	Fri 10/31/08	Fri 12/5/08		Project Manager	\$17,500.00
51	System Architecture	80 hrs	80 hrs	Wed 11/12/08	Tue 11/25/08		System Architect	\$9,600.00
52	Database Modeling	180 hrs	180 hrs	Wed 12/10/08	Fri 12/19/08	51	Database Modeler	\$21,000.00
53	ETL Data Flow Devel	160 hrs	160 hrs	Wed 2/18/09	Tue 3/17/09	52	ETL Developer	\$16,000.00
54	Report Devel	400 hrs	400 hrs	Wed 7/22/09	Tue 8/29/09	53	Application Developer	\$36,000.00
55	Testing	120 hrs	120 hrs	Wed 9/30/09	Tue 10/20/09	54	Application Developer	\$10,800.00
56	Teacher Statistics	2,020 hrs	295 days	Wed 10/1/08	Tue 11/17/09			\$213,100.00
57	Project Mgmt	180 hrs	180 hrs	Wed 10/1/08	Fri 10/31/08		Project Manager	\$31,500.00
58	System Architecture	240 hrs	240 hrs	Wed 10/1/08	Tue 11/11/08		System Architect	\$26,800.00
59	Database Modeling	160 hrs	160 hrs	Wed 11/12/08	Tue 12/9/08	58	Database Modeler	\$19,200.00
60	ETL Data Flow Devel	400 hrs	400 hrs	Wed 12/10/08	Tue 2/17/09	59	ETL Developer	\$40,000.00

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
61	Report Devel	680 hrs	680 hrs	Wed 2/16/09	Tue 7/21/09	60	Application Developer	\$79,200.00
62	Testing	160 hrs	160 hrs	Wed 10/21/09	Tue 11/17/09	61	Application Developer	\$14,400.00
63	Automate EDEN File Submission	966 hrs	216 days	Tue 3/3/09	Tue 12/29/09		Project Manager	\$102,025.00
64	Project Mgmt	87 hrs	87 hrs	Tue 3/3/09	Tue 3/17/09		Warehouse Developer	\$15,225.00
65	File Spec Review/Analysis	62 hrs	62 hrs	Tue 3/3/09	Thu 3/12/09		Warehouse Developer	\$6,200.00
66	Automate File Creation	372 hrs	372 hrs	Mon 3/23/09	Tue 5/26/09	65	Warehouse Developer	\$37,200.00
67	Create/Review Files	93 hrs	93 hrs	Thu 7/30/09	Mon 8/17/09	66	Warehouse Developer	\$9,300.00
68	Data Steward File Validation	248 hrs	248 hrs	Tue 9/1/09	Wed 10/14/09	67	Warehouse Developer	\$24,800.00
69	Submit Files Via EDEN	93 hrs	93 hrs	Mon 12/14/09	Tue 12/29/09	66	Warehouse Developer	\$9,300.00
70	Data Dictionary	675 hrs	675 hrs	Mon 8/3/09	Fri 11/27/09		Document Specialist	\$67,500.00
71	LEAP INITIATIVE II	450 hrs	66 days	Mon 11/3/08	Mon 2/2/09			\$147,871.00
72	NTC Electronic Transcript Exchan	450 hrs	66 days	Mon 11/3/08	Mon 2/2/09			\$147,871.00
73	Project Management	100 hrs	100 hrs	Mon 11/3/08	Wed 1/13/09		Project Manager	\$17,500.00
74	Warehouse Design/Maint	300 hrs	300 hrs	Mon 11/3/08	Wed 12/24/08		Warehouse Architect	\$36,000.00
75	Data Dictionary Enhancement	50 hrs	50 hrs	Wed 12/24/08	Thu 1/1/09	74	Document Specialist	\$5,000.00
76	NTC Fees Year 2	0 hrs	1 hr	Mon 2/2/09	Mon 2/2/09		NTC Fees Year 2(f)	\$79,371.00
77	Advisory Committee Meetings	0 hrs	528 hrs	Mon 11/3/08	Mon 2/2/09		Advisory Committee M	\$10,000.00
78	LEAP INITIATIVE III	1,450 hrs	181.25 days	Mon 11/3/08	Tue 7/14/09			\$145,000.00
79	Local Data Analysis & Reporting	1,450 hrs	181.25 days	Mon 11/3/08	Tue 7/14/09			\$145,000.00
80	Evaluation and Refinement	250 hrs	250 hrs	Mon 11/3/08	Tue 12/16/08		COGNOS Trainer	\$25,000.00
81	Multi-Region Training	1,000 hrs	1000 hrs	Tue 12/16/08	Tue 6/9/09	80	COGNOS Trainer	\$100,000.00
82	Webinar-based Training	200 hrs	200 hrs	Tue 6/9/09	Tue 7/14/09	81	COGNOS Trainer	\$20,000.00
83	ADDITIONAL PROJECT COSTS (All Inv)	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09			\$120,000.00
84	Travel to Grant-related mtg's	0 hrs	260 days?	Wed 10/1/08	Tue 9/29/09		Travel(f)	\$5,000.00
85	3rd party Project Evaluation Services	0 hrs	260 days?	Wed 10/1/08	Tue 8/29/09		Project Evaluation(f)	\$100,000.00
86	Training for COE staff support	0 hrs	260 days?	Wed 10/1/08	Tue 8/29/09		Support Staff Training	\$15,000.00
87	YEAR 3 INITIATIVES	5,000 hrs	433 days?	Mon 2/2/09	Wed 9/29/10			\$761,639.00
88	LEAP INITIATIVE I	3,350 hrs	348 days	Mon 3/2/09	Wed 6/30/10			\$353,925.00
89	Special Education	1,720 hrs	195 days	Thu 10/1/09	Wed 8/30/10			\$184,400.00
90	Project Mgmt	160 hrs	160 hrs	Thu 10/1/09	Wed 10/28/09		Project Manager	\$28,000.00

ID	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names	Cost
91	System Architecture	160 hrs	160 hrs	Thu 10/1/09	Wed 10/28/09		System Architect	\$19,200.00
92	Database Modeling	240 hrs	240 hrs	Thu 10/29/09	Wed 12/9/09	91	Database Modeler	\$28,800.00
93	ETL Data Flow Devel	400 hrs	400 hrs	Thu 12/10/09	Wed 2/17/10	92	ETL Developer	\$40,000.00
94	Report Devel	560 hrs	560 hrs	Thu 2/18/10	Wed 5/26/10	93	Application Developer	\$50,400.00
95	Testing	200 hrs	200 hrs	Thu 5/27/10	Wed 6/30/10	94	Application Developer	\$16,000.00
96	Automate EDEN File Submission	856 hrs	205.38 days	Mon 3/2/09	Mon 12/14/09			\$102,825.00
97	Project Mgmt	87 hrs	87 hrs	Mon 3/2/09	Tue 3/3/09		Project Manager	\$15,225.00
98	File Spec Review/Analysis	62 hrs	62 hrs	Mon 3/2/09	Mon 3/23/09		Warehouse Developer	\$6,200.00
99	Automate File Creation	372 hrs	372 hrs	Wed 5/27/08	Thu 7/30/09	96	Warehouse Developer	\$37,200.00
100	Create/Review Files	93 hrs	93 hrs	Mon 8/17/09	Tue 9/1/09	99	Warehouse Developer	\$9,300.00
101	Data Steward File Validation	248 hrs	248 hrs	Wed 10/14/09	Thu 11/26/09	100	Warehouse Developer	\$24,800.00
102	Submit Files via EDEN	93 hrs	93 hrs	Thu 11/26/09	Mon 12/14/09	101	Warehouse Developer	\$9,300.00
103	Data Dictionary	675 hrs	675 hrs	Wed 6/3/09	Tue 8/23/09		Document Specialist	\$67,500.00
104	LEAP INITIATIVE II	450 hrs	262 days	Mon 2/2/09	Tue 2/2/10			\$167,714.00
105	NTC Electronic Transcript Exchan	450 hrs	262 days	Mon 2/2/09	Tue 2/2/10			\$167,714.00
106	Project Management	100 hrs	100 hrs	Tue 1/13/09	Thu 1/19/09		Project Manager	\$17,500.00
107	Warehouse Design/Maint	300 hrs	300 hrs	Tue 1/13/09	Thu 12/24/09		Warehouse Architect	\$36,000.00
108	Data Dictionary Enhancement	50 hrs	50 hrs	Thu 12/24/09	Fri 1/1/10	107	Document Specialist	\$5,000.00
109	NTC Fees Year 3	0 hrs	1 hr	Mon 2/2/09	Mon 2/2/09		NTC Fees Year 3(1)	\$99,214.00
110	Advisory Committee Meetings	0 hrs	528 hrs	Tue 1/13/09	Tue 2/2/10		Advisory Committee M	\$10,000.00
111	LEAP INITIATIVE III	1,200 hrs	150 days	Tue 11/3/09	Mon 5/31/10			\$120,000.00
112	Local Data Analysis & Reporting	1,200 hrs	150 days	Tue 11/3/09	Mon 5/31/10			\$120,000.00
113	Webinar-based Training	200 hrs	200 hrs	Tue 1/13/09	Mon 12/7/09		COGNOS Trainer	\$20,000.00
114	Multi-Region Training	1,000 hrs	1000 hrs	Tue 12/8/09	Mon 5/31/10	113	COGNOS Trainer	\$100,000.00
115	ADDITIONAL PROJECT COSTS (All Inv)	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10			\$120,000.00
116	Travel to Grant-related meetings	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10		Travel(1)	\$5,000.00
117	3rd party Project Evaluation Services	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10		Project Evaluation(1)	\$100,000.00
118	Training for CDE staff support	0 hrs	260 days?	Thu 10/1/09	Wed 9/29/10		Support Staff Training	\$15,000.00

Resource Costs

Resource costs are based on hourly rates CDE has utilized for prior contract work for specific skill sets. Material costs are based on specific quotes for project work (such as those for the National Transcript Center, NTC, project) or software licenses.

<u>ID</u>	<u>Name</u>	<u>Type</u>	<u>Standard Rate</u>
1	Project Manager	Work	(b)(4)
2	System Architect	Work	
3	Database Modeler	Work	
4	ETL Developer	Work	
5	Applicaton Developer	Work	
6	Warehouse Developer	Work	
7	Warehouse Architect	Work	
8	Transcript Analyst	Work	
9	Document Specialist	Work	
10	NTC Fees Year 1	Material	\$396,859.00
11	NTC Fees Year 2	Material	\$79,371.00
12	NTC Fees Year 3	Material	\$99,214.00
13	COGNOS Trainer Advisory Committee	Work	(b)(4)
14	Meetings	Material	\$10,000.00/yr
15	Cognos License Expansion Cognos Professional	Material	\$1,000,000.00
16	Services	Material	\$170,000.00
17	Project Evaluation	Material	\$100,000.00/yr
18	RFP Writer	Material	\$30,000.00
19	Support Staff Training	Material	\$15,000.00/yr
20	Travel Policy Review Board	Material	\$5,000.00/yr
21	Initiation	Material	\$48,000

Budget Analysis

Of the requested total of \$4,244,519 over three years, \$3,229,519 will go towards contract services. \$1,000,000 is budgeted towards a one-time license expansion for Cognos Business Intelligence software, and \$15,000 (5,000 per year) is budgeted for grant-related travel. Specific costs are aligned with the project plan provided above.