

U.S. Department of Education

Washington, D.C. 20202-5335



APPLICATION FOR GRANTS UNDER THE

**STATEWIDE LONGITUDINAL DATA SYSTEM RECOVERY ACT GRANTS
CFDA # 84.384A
PR/Award # R384A100031**

Closing Date: DEC 04, 2009

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Application for Federal Assistance SF-424

Version 02

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

* 3. Date Received:	4. Applicant Identifier:
12/3/2009	

5a. Federal Entity Identifier:	* 5b. Federal Award Identifier:
	NA

State Use Only:

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

8. APPLICANT INFORMATION:

* a. Legal Name: Minnesota Department of Education

* b. Employer/Taxpayer Identification Number (EIN/TIN):	* c. Organizational DUNS:
416007162	933561318

d. Address:

* Street1:	1500 Highway 36 West
Street2:	
* City:	Roseville
County:	
State:	MN
Province:	
* Country:	USA
* Zip / Postal Code:	55113

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:	Cathy
Middle Name:		

* Last Name: Wagner

Suffix:

Title:

Organizational Affiliation:

* Telephone Number: (651)582-8688

Fax Number:

* Email: CATHY.WAGNER@STATE.MN.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:

84.384A

CFDA Title:

Statewide Longitudinal Data System Recovery Act Grants

*** 12. Funding Opportunity Number:**

072909-0001

Title:

Grants for Statewide Longitudinal Data Systems Under the American Recovery and Reinvestment Act of 2009

13. Competition Identification Number:

84-384A2009-1

Title:

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

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

Minnesota Education Data Systems for 21st Century Learning

Attach supporting documents as specified in agency instructions.

Attachment:

Title :

File :

Attachment:

Title :

File :

Attachment:

Title :

File :

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant: all

* b. Program/Project: all

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

Attachment:

Title :

File :

17. Proposed Project:

* a. Start Date: 6/1/2010

* b. End Date: 5/31/2013

18. Estimated Funding (\$):

a. Federal	\$ 12411888
b. Applicant	\$ 0
c. State	\$ 925933
d. Local	\$ 0
e. Other	\$ 0
f. Program Income	\$ 0
g. TOTAL	\$ 13337821

*** 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: Cathy
Middle Name:
* Last Name: Wagner
Suffix:

Title: Director - Information Technology

* Telephone Number: (651)582-8688 Fax Number:

* Email: CATHY.WAGNER@STATE.MN.US

* Signature of Authorized Representative: * Date Signed:

Application for Federal Assistance SF-424

Version 02

*** Applicant Federal Debt Delinquency Explanation**

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



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

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:
Minnesota 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	\$ 862,500	\$ 1,665,000	\$ 1,623,750	\$ 0	\$ 0	\$ 4,151,250
2. Fringe Benefits	\$ 284,625	\$ 549,450	\$ 535,838	\$ 0	\$ 0	\$ 1,369,913
3. Travel	\$ 18,000	\$ 18,000	\$ 18,000	\$ 0	\$ 0	\$ 54,000
4. Equipment	\$ 0	\$ 1,050,000	\$ 0	\$ 0	\$ 0	\$ 1,050,000
5. Supplies	\$ 9,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,000
6. Contractual	\$ 585,000	\$ 1,700,000	\$ 1,450,000	\$ 0	\$ 0	\$ 3,735,000
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
9. Total Direct Costs (lines 1-8)	\$ 1,759,125	\$ 4,982,450	\$ 3,627,588	\$ 0	\$ 0	\$ 10,369,163
10. Indirect Costs*	\$ 346,548	\$ 981,543	\$ 714,635	\$ 0	\$ 0	\$ 2,042,726
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 2,105,673	\$ 5,963,993	\$ 4,342,223	\$ 0	\$ 0	\$ 12,411,889

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

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

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

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

Period Covered by the Indirect Cost Rate Agreement: From: 7/1/2009 To: 9/30/2010 (mm/dd/yyyy)

Approving Federal agency: ED Other (please specify): _____ The Indirect Cost Rate is 19.7%

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

Is included in your approved Indirect Cost Rate Agreement? or, Complies with 34 CFR 76.564(c)(2)? The Restricted Indirect Cost Rate is 0%



U.S. DEPARTMENT OF EDUCATION

BUDGET INFORMATION

NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:
Minnesota 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	\$ 149,250	\$ 186,750	\$ 245,625	\$ 0	\$ 0	\$ 581,625
2. Fringe Benefits	\$ 49,253	\$ 61,628	\$ 81,056	\$ 0	\$ 0	\$ 191,937
3. Travel	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
4. Equipment	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
5. Supplies	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
6. Contractual	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
9. Total Direct Costs (lines 1-8)	\$ 198,503	\$ 248,378	\$ 326,681	\$ 0	\$ 0	\$ 773,562
10. Indirect Costs	\$ 39,105	\$ 48,930	\$ 64,356	\$ 0	\$ 0	\$ 152,391
11. Training Stipends	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
12. Total Costs (lines 9-11)	\$ 237,608	\$ 297,308	\$ 391,037	\$ 0	\$ 0	\$ 925,953

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Standard Form 424B (Rev.7-97)

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

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

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

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

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management, and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. "4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. "1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. '794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. "276a to 276a-7), the Copeland Act (40 U.S.C. '276c and 18 U.S.C. "874) and the Contract Work Hours and Safety Standards Act (40 U.S.C. " 327-333), regarding labor standards for federally assisted construction sub-agreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. "1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. "7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. "1721 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance

of 1975, as amended (42 U.S.C. " 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) " 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. " 290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. ' 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied, with the requirements of Titles II and III of the uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with the provisions of the Hatch Act (5 U.S.C. "1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. '470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. "469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. "2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. "4801 et seq.) which prohibits the use of lead- based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

Signature of Authorized Certifying Representative:

Name of Authorized Certifying Representative: Cathy Wagner

Title: Director - Information Technology

Date Submitted: 12/02/2009

Disclosure of Lobbying Activities

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

1. Type of Federal Action: <input type="checkbox"/> Contract <input type="checkbox"/> Grant <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Loan <input type="checkbox"/> Loan Guarantee <input type="checkbox"/> Loan Insurance	2. Status of Federal Action: <input type="checkbox"/> Bid/Offer/Application <input type="checkbox"/> Initial Award <input type="checkbox"/> Post-Award	3. Report Type: <input type="checkbox"/> Initial Filing <input type="checkbox"/> Material Change For Material Change only: Year: 0 Quarter: 0 Date of Last Report:
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier, if known: 0 Name: Minnesota Department of Education Address: 1500 Highway 36 W City: Roseville State: MN Zip Code + 4: 55113- Congressional District, if known:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Name: Address: City: State: Zip Code + 4: - Congressional District, if known:	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, if applicable:	
8. Federal Action Number, if known:	9. Award Amount, if known: \$0	
10. a. Name of Lobbying Registrant (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: -	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: -	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Name: Cathy Wagner Title: Director - Information Technology Applicant: Minnesota Department of Education Date: 12/02/2009	
Federal Use Only:	Authorized for Local Reproduction Standard Form LLL (Rev. 7- 97)	

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements.

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

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

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

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

Statement for Loan Guarantees and Loan Insurance.

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

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

APPLICANT'S ORGANIZATION

Minnesota Department of Education

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: First Name: Cathy Middle Name:

Last Name: Wagner Suffix:

Title: Director - Information Technology

Signature: _____ Date: 12/02/2009

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

1. Project Director:

Prefix: * First Name: Middle Name: * Last Name: Suffix:
 John L Paulson

Address:

* Street1: 1500 Highway 36 West
Street2:
* City: Roseville
County:
* State: MN* Zip / Postal Code: 55113 * Country: USA

* Phone Number (give area Fax Number (give area
code) code)
(651)582-8451

Email Address:

JOHN.L.PAULSON@STATE.MN.US

2. Applicant Experience

Novice Applicant Yes No Not applicable

3. Human Subjects Research

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

Yes No

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

Yes Provide Exemption(s) #:

No Provide Assurance #, if available:

Please attach an explanation Narrative:

Attachment:

Title :
File :

Project Narrative

Project Narrative - Project Abstract

Attachment 1:

Title: **Minnesota abstract** Pages: **0** Uploaded File: **C:\Documents and Settings\crhombs\Desktop\Project Abstract.pdf**

Project Abstract

The Minnesota Department of Education (MDE) proposes the project *Minnesota Education Data Systems for 21st Century Learning* to build upon successes of the state's initial P-12 Longitudinal Data System (LDS), which currently tracks student enrollment, demographics and statewide assessment data. The proposed system improvements will transition Minnesota's education data capacity to a fully interoperable, enterprise-level data collection, reporting and analysis system. These improvements will include solid data sharing connections across multiple state agencies with links among P-12 education, post secondary education, and the workforce to support the continuous improvement of statewide education services and inform policy and practice.

- **System Improvement Goal A:** Upgrade current data collection systems to simplify data reporting, support accountability systems, and meet additional data elements required by the America COMPETES Act. The collected data will be stored in the P-12 LDS warehouse. The outcome for this Goal is the enterprise data collections systems—Student Education Reporting and Viewing Systems (SERVS)—which includes four products: 1) Base Infrastructure, 2) SERVS Student, 3) SERVS Staff, and 4) SERVS Organization.
- **System Improvement Goal B:** Create a second data warehouse to support accurate management and analysis of disaggregated P-20 data. MDE will manage this warehouse through an interagency governance structure. The new, linkable system will include data from P-12, post secondary and the workforce. The outcome for this Goal is a linkable P-20 interagency warehouse, which includes one product: a Statewide Longitudinal Education Data System (SLEDS).
- **System Improvement Goal C:** Expand data analytic tools for educational research and evaluation to improve student academic achievement and close the achievement gaps. The outcome for this Goal is analytic portals, which includes two products: 1) an extended Educator Portal and 2) the P-20 Research Portal.

Minnesota's current P-12 LDS includes nine of the twelve data elements required in the America COMPETES Act. The proposed System Improvement Goals address the three remaining elements—1) linking teachers to courses to students, 2) end of course completion information and 3) student transition from P-12 to post secondary data. By adding these three elements, Minnesota will meet the requirements of the Race to the Top Application as well as the four assurances of the State Fiscal Stabilization Fund Application.

MDE's work partners on this project include the Office of Higher Education, Office of Enterprise Technology, Department of Employment and Economic Development, as well as the P-20 Education Partnership and the State Advisory Council on Early Childhood Education and Care.

The activities proposed in this grant application align with Minnesota's newly developed Education Performance Vision and the state's Ten Policy Initiatives to support continuous instructional improvement and informed decision-making at the school, district and state levels.

Project Narrative

Project Narrative - Project Narrative

Attachment 1:

Title: **MN Project Narrative** Pages: **0** Uploaded File: **Minnesota Education Data Systems for 21st Century Learning.pdf**

Project Narrative

(a) Need for the Project

The proposed grant project, *Minnesota Education Data Systems for 21st Century Learning*, builds upon initial successes of Minnesota's current P-12 Longitudinal Data System (LDS), which tracks student enrollment, demographics and statewide assessment information over time. When fully implemented, the system improvements described in this grant proposal will transition Minnesota's education data capacity to a fully interoperable, enterprise-level data collection, reporting and analysis system. These system improvements will incorporate solid data sharing connections across state agencies. Links among P-12 education, post secondary education, and the workforce will support the continuous improvement of statewide education services and inform policy and practice.

- **System Improvement Goal A:** Upgrade the current Minnesota Department of Education (MDE) data collection systems to simplify data reporting, support accountability systems, and include additional data elements to meet reporting timelines set forth in the America COMPETES Act. Local education agencies (LEAs) will report linkable student, teacher and organization information through new P-12, enterprise-level, data collection software—the Student Education Reporting and Viewing Systems (SERVS). Information collected through SERVS will be stored in the P-12 LDS.
- **System Improvement Goal B:** Create a second data warehouse managed by MDE through an interagency governance structure to support accurate management and analysis of disaggregated P-20 data. The new P-20 warehouse will include data from P-12, post secondary and the workforce in a linkable Statewide Longitudinal Educational Data System (SLEDS).
- **System Improvement Goal C:** Expand data analytic tools for educational research and evaluation to improve student academic achievement, close the achievement gaps and inform decision making at the school, district and state levels. The existing analytic tool, P-12 Educator Portal, will be extended and a new tool, the P-20 Research Portal of Minnesota (P-20 RMP) for SLEDS will be created. Together these analytic portals will be a clearinghouse for education research.

The work of this grant proposal extends existing system features without supplanting any current funding or policy initiatives.

Minnesota's Longitudinal Data System—Current Capabilities

Minnesota, with funds from a 2006 IES Longitudinal Data Systems Grant, completed nine of the 12 foundational data elements required in the America COMPETES Act:

- Our MARSS ID is a randomly generated, unique P-12 student identifier.
- Student-level enrollment, demographic and program participation data are available in the P-12 data warehouse.
- Data sharing agreements and shared governance structures permit communication and data exchange between P-12 and higher education systems.

- Our web-based collection systems enforce edits at the time of collection and provide the basis for data audits by various program areas.
- We have published disaggregated student level assessment scores since 1998.
- Our annual School Report Card for individual schools and districts within the state includes information on students not tested by grade and subject.
- We began collecting selected transcript data on all high students, including GPA, class rank and non-standard passing information for students on state assessments in 2009.
- Our unique teacher identifier will make it possible to expand current systems enabling linkages between teachers, students, courses and course outcome data.
- We began publishing College Readiness Scores on each district's annual School Report Card in 2009.
- We publish a variety of statistics that address alignment and adequate preparation for postsecondary education success including participation information and the number of students considered college ready on ACT tests.

With this exceptionally strong foundation, we will make optimum use of funds requested in this grant proposal. The 2006 IES Longitudinal Data Systems Grant enabled us to develop the following features of the MDE LDS:

A best-in-class data dictionary: Minnesota's data dictionary has been shared with other states as a national model for education agencies. This common set of definitions and meta-data structures has been used department-wide for the past three years to facilitate inclusion of data in the warehouse and its use in subsequent analytics. This model, using extensible mark-up language (XML), will enable future interoperability with LEAs and simplify the process for making education data transparent.

Longitudinal warehouse: The P-12 warehouse is the core of our enterprise data infrastructure and includes analytic cubes based on the design of the National Center for Education Statistics Handbooks On-line domain data model. To date we have focused on incorporating existing P-12 data elements needed for accountability and reporting. We have developed extract, transformation and load (ETL) software for adding those data into the LDS.

A School Interoperability Framework (SIF) compliant enterprise data model¹: Our enterprise data model (EDM) is organized around SIF modeling objects in an XML based structure that facilitates exchanges among internal MDE applications and external LEA applications. The model supports the collection and reporting of all information associated with student, teacher and organizations. Views from these multiple perspectives eliminate the need for redundant data collection. A student perspective shows the school where a student is currently enrolled, the classes this student is taking, classes taken at any previous schools as well as current and past test scores. Those same data elements can be seen in a teacher view showing which students are currently assigned to the teacher, the courses currently teaching, the preparation institution the teacher attended as well as test results associated with students taught in prior years. With much of the design work already completed, we are positioned to quickly integrate remaining and new data sets into the enterprise data model.

¹ Documentation on our EDM is included in Appendix D.

Ed Facts data repository: Data is stored in the P-12 data warehouse providing a consistent, interoperable source for accountability, growth, disciplinary incidents and school finance information for Ed Facts reporting. These same data are used to validate the No Child Left Behind Consolidated Application and Minnesota's Annual Performance Report for Special Education.

Data Record Linking System (DRLS): Despite the fact that Minnesota has had unique teacher and student identifiers since 1998, our legacy stove piped systems were not interoperable. Each could have slightly different information in the identification key for the same student or teacher resulting in duplicate records when merged in the LDS. For example, a student could be reported as Dave M. Onsrud in one collection but as David O. Onsrud in a subsequent collection in another district. A unique identification number could be one digit off between two records. Are these the same or different students?

DRLS software was developed to solve this problem. It uses a series of algorithmic routines facilitating the match of unit records prior to inclusion in the warehouse. DRLS maximizes the accuracy of data transitioned into a longitudinal system by eliminating the potential for inadvertent record duplication. This is a particularly exciting tool as we look to the next phase of the LDS since many external data sets such as those from ACT and the College Board do not use the same identification keys. Without DRLS, we would be restricted to including only sets sharing our unique identifiers, thereby limiting our functional capacity. DRLS will be instrumental for successfully including postsecondary and workforce data in our P-20 LDS.² With funding from this proposal, we will expand DRLS capacity with common off-the-shelf tools (COTS) from business intelligence vendors to create seamless operational linking for all P-20 data from a variety of Minnesota state agencies.

Identity Management System: The MDE Identity Management System (MIDMS) is an industry-standard, role-based security framework designed to protect the privacy of sensitive data while providing appropriate access for approved users. The ORACLE Access Manager based architecture has a distributed security model that allows LEAs or postsecondary institutions direct control over which staff have authorization to secure web pages thus permitting parents, teachers and administrators differentiated access while allowing for maximum protection of student privacy. Our current technology supports the capacity for districts to approve and retain authorized users while maintaining the highest standard of security. With MIDMS, we can include additional early childhood, postsecondary education data and workforce data elements while preserving the privacy of individual students according to FERPA and Minnesota data practices laws.

Analytic portal: The Educator Portal has become a one-stop website for educators to analyze aggregate or individual student level data in the P-12 LDS. All assessment and accountability results are loaded into the portal as soon as they arrive from the testing company allowing district review, verification and approval prior to the official public release. Data in the Educator Portal answers policy and program questions using disaggregated information about schools and

² White Paper: Creating Student Information from Legacy Record Systems Using Probabilistic Record Linking, John L Paulson, CIO MDE 2008 in Appendix D.

districts. Analysis can be performed based on gender, race ethnicity, socio-economic status and program participation. Authorized users may also access individual student unit record data. District staff can view all district data, data from a single school, or data for a specific group of students.

Analytic options for state assessment results, Minnesota Growth Model analysis, NCLB accountability, and Safe and Healthy Learners can be viewed by county, district, school or individual student while maintaining strict privacy and data security measures. It is secured by our single sign-on, role-based identity management system, and we are ready to add additional customized data analysis tools needed to engage classroom teachers in real time data analysis to impact instructional changes. This design is robust enough to include local assessment information when conforming to uniform data structures.³

Data sharing agreements and governance structures: Our work over the past five years with the P-20 Partnership has culminated in an innovative interagency governance structure that sets a foundation for sharing significant educational data among P-12, higher education and workforce organizations. The Minnesota Legislation passed a law authorizing data exchanges between MDE and the Office of Higher Education. Data sharing agreements between the two state agencies have been signed. This places Minnesota in position to move quickly ahead to the next generation of linked data systems encompassing early childhood, P-12, postsecondary and workforce information.⁴

Highlights of Minnesota's P-12 LDS System in Development

The following capabilities of the LDS system were begun with support from our 2006 award and are in development:

Student Roster Pilot: The Student Roster is intended as an additional tab within the Educator Portal allowing authorized users to create a group of students for data analysis by entering the unique student identifiers into a secure web search. Researchers can then select associated data elements from the warehouse regardless of which districts or schools the students attended at the time of data collection. For example, researchers can use this tool to compare students who take science, technology, engineering and mathematics with those who do not take similar courses. It is equally possible to create a teacher-centric view of these same data.⁵

With input from the Data Management Steering Committee, we are ready to bring this pilot to scale statewide for immediate use in school improvement analysis and planning in the next phase of our LDS. There are substantial challenges in training educators on the appropriate use of this

³ Educator Portal screen shots can be found at:

<http://education.state.mn.us/mdeprod/groups/NCLB/documents/Manual/031960.pdf>

⁴ The complete Statewide Longitudinal Education Data System Charter document including statutes, data sharing agreements and list of initial "seed" data for the interagency warehouse is included in Appendix D

⁵ Minnesota Department of Education Website:

http://education.state.mn.us/MDE/Learning_Support/School_Technology/Data_SIG/index.html

tool. This grant proposal includes the development of training materials, and we intend to leverage resources requested in the Race to the Top Proposal that will be allocated to professional development, including the utilization of data coaches who will work with participating schools.

Business intelligence tools: Information Builders, Inc. is a market leader among business intelligence tools enabling Minnesota to meet its policy initiatives by creating more “canned” or “on-demand” reports. The next phase of development will leverage this initial investment of LDS funding by providing additional custom data analytics in program specific tabs within the Education Portal or the through the publicly available School Report Card.

For a summary of the status of the capabilities and elements of Minnesota’s LDS, please refer to Appendix C.

Highlights of Capabilities to be added for Expanded P-12 and P-20 LDS Capacity

While Minnesota has made great progress toward the goal of a fully integrated, statewide data system, we must add capacity to meet new federal data collection requirements and ease the reporting burdens for LEAs these additional collections necessitate. We intend to pilot new automated data exchange processes with selected districts and states as we begin to collect the additional data required by the America COMPETES Act.

Interoperable Data Exchanges: Our long-range vision is to support SIF compliant, interoperable data exchanges to simplify the process of reporting and collecting new data elements.

District Pilot: With over 500 districts ranging in size from 10 to 40,000⁶ students, the sophistication of data management capacity varies greatly. Some districts will prefer to manage data in-house with web-based submissions via SERVS. Others will prefer more state of the art, automated processing. With funding from this grant proposal, we will conduct a SIF pilot with two of the larger districts in the state and two data management vendors to determine the feasibility of bringing this effort to scale statewide.

Multi- State Pilot: The lessons learned from the Minnesota SIF pilot will inform a seven-state SIF Pilot. Minnesota is partnering with Missouri, Iowa, Kansas, Nebraska, North Dakota and South Dakota to implement a secure, SIF standards-based, student record exchange solution dependent upon a state student ID management system. The Student Locator Framework (SLF) provides seamless interoperability among student information systems installed at each district and the state ID management systems. As students enroll in districts, student IDs are automatically created by the state ID management systems, stored in each state’s student information system and transmitted back to local districts over a secure SIF transport. These seven states are collaborating to leverage each other’s work in the area of student re-enrollment in and graduation from K-12 systems to improve local data quality. There is also interest within the group to develop an educator locator.

⁶ Minnesota Department of Education Website: <http://education.state.mn.us/mde/index.html>

