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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Forms

Narratives

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

Application for Federal Assistance SF-424 Version 02

* 1. Type of Submission	* 2. Type of Application:	* If Revision, select appropriate letter(s):
[ ] Preapplication	[X] New	
[X] Application	[ ] Continuation	* Other (Specify)
[ ] Changed/Corrected Application	[ ] 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.
[X] c. Program is not covered by E.O. 12372.

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

[ ] Yes [X] 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)**

[X] ** 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? [X] 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: [X] 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%

ED Form No. 524

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

Approved by OMB 0348-0046 Exp.

Disclosure of Lobbying Activities

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

1. Type of Federal Action:	**2. Status of Federal Action:**	**3. Report Type:**
[ ] Contract **[ ]** Grant **[ ]** Cooperative Agreement **[ ]** Loan **[ ]** Loan Guarantee **[ ]** Loan Insurance	**[ ]** Bid/Offer/Application **[ ]** Initial Award **[ ]** Post-Award	**[ ]** Initial Filing **[ ]** Material Change **For Material Change only:** Year: 0Quarter: 0 Date of Last Report:

4. Name and Address of Reporting Entity:	**5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:**
[X] Prime **[ ]** 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:**	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

ED 80-0013 03/04

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

Email Address:

JOHN.L.PAULSON@STATE.MN.US

2. Applicant Experience

Novice Applicant [ ] Yes [ ] No [X] Not applicable

3. Human Subjects Research

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

[ ] Yes [X] 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 model [1] : 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

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[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

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[3] Educator Portal screen shots can be fount 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 40,000[6] 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

America COMPETES Act: These three elements of the America COMPETES act must be implemented to meet the application requirements for this grant proposal:

- Ability to link teachers to courses to students.
- End of course completion information including student grades earned by course
- Data regarding student transition from P-12 to postsecondary including remediation information

Linking teachers to courses to students: Based on work done by the National Center for Education Statistics on the Secondary School Course Classification System: School Codes for the Exchange of Data (SCED), we are creating a universal index of all courses taught in Minnesota schools. The Minnesota Common Course Catalogue (MCCC) is scheduled for completion in 2011 and will allow teachers to be linked to students through courses using currently existing unique teacher and student identifier codes.[7]

Beginning in the summer of 2010, school districts will access the MCCC web site and identify which MCCC course descriptions best match the local courses the district offers. Once districts have identified the MCCC course numbers for their local offerings, they will specify the Carnegie units, level of rigor and sequence for each course. This information will be reported to MDE in the expanded SERVS data collection systems identified in System Improvement Goal A listed on page one of this proposal.

Student data will include courses taken, the specific course section, the time of day courses were taken, and grades earned. Staff records identify specific courses taught thorough a unique course number associated with a unique teacher identifier. This information will include section numbers for courses and the period of day each section is taught. School organization data collections will include numbers for all courses and sections offered at the site including the periods of the day when specific sections are offered. This information will be combined in the P-12 LDS allowing students to be linked to teachers for a variety of research and evaluation purposes. Analysis will be conducted through expanded dashboards in the Educator Portal identified in System Improvement Goal C listed on page one of this proposal.

Course Completion Information: End of course completion information as well as other transcript elements will be collected in the new enterprise student data collection system, SERVS Student. Districts currently report GPA, class rank and a series of non-standard scores on large scale assessments, such as Pass Individual for special education students as well as three-year LEP exemption status for students who are new to English speaking classrooms. This information will be expanded to include courses taken, grades earned and other information generated from the MCCC project. Focus groups will identify further transcript elements to be included in the SERVS Student collection.

Student Transitions from P-12 to Post Secondary: Our vision for the Minnesota P-20 data system requires establishing links across a variety of state agency data sets. These cross-agency connections will be accomplished in a new P-20 Statewide Longitudinal Data Warehouse

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7 An expanded summary of the MCCC project is included in Appendix D.

(SLEDS) that will incorporate data from different sources as approved by the SLEDS governing body. P-12 data will come from MDE. Post secondary data will be coordinated through the Office of Higher Education (OHE). Data about the workforce and labor will come from the Department of Employment and Economic Development (DEED). The SLEDS warehouse will be hosted by the Office of Enterprise Technology (OET) at the State Data Center. Service level agreements between MDE, OHE, DEED and OET will facilitate the joint data management responsibilities and secure access to this anonymized research data.[8]

Related Federal Legislation

By adding the three remaining elements of the America Competes Act, the System Improvements described in this grant proposal will provide the data system foundation needed to meet the requirements of both the State Fiscal Stabilization Fund Application and the Race to the Top Application as detailed in guidance for the American Recovery and Reinvestment Act.

State Fiscal Stabilization Fund Application Requirements

This grant proposal includes the System Improvements necessary to expand current data capacity to meet each of the four Stabilization assurances as summarized below:

Assurance 1- Improving Collection and Use of Data: requires a longitudinal data system with links among teachers, courses and students that provides individual teacher information on student performance including estimates of teacher effect. There are no political barriers to implementing these outcomes.

Assurance 2-Achieving Equity in Teacher Distribution: requires states to ensure that highly qualified teachers are teaching in the highest need schools. The linked teacher-student data and expanded licensure information planned for addition to the LDS combined with enrollment and achievement data will accurately pinpoint distribution of teachers in high need districts and provide information for system evaluation.

Assurance 3-Standards and Assessments: requires reporting of information on the number and percentage of students with disabilities and limited English proficiency who are included in state reading and mathematics assessments, the most recent NAEP results and the number and percentage of students who graduate from high school using a four-year adjusted cohort graduation rate. This information is currently published on our School Report Card. With funding from this grant proposal, we will expand to include the number of students who enroll in an institution of higher education and those who complete at least one-year's worth of college credit within two years of high school graduation.

Assurance 4 - Supporting Struggling Schools: requires Minnesota to add information on struggling schools to the School Report Card web site. We currently identify the number and percentage of schools in Needs Improvement, Corrective Action, or Restructuring and highlight schools in which students made improvement on state assessments in reading and mathematics during the previous year. The School Report Card also identifies the number of charter schools currently operating as well as those that have closed including the reasons for closing, such as financial, enrollment, or academic. With additional funding requested in Minnesota's Race to

[8] A Sample Service Level Agreements is included in Appendix D.

the Top Proposal, we will identify and summarize the number and percent of all schools in the lowest five percent of student achievement on state reading and math assessments that have turned around, consolidated or closed in the previous year.

Race to the Top Proposal

Aspects of each strategy in the Minnesota Race to the Top (RTTT) proposal depend on the improved data system capacity described in this grant proposal. All nine RTTT strategies are listed below. The specific LDS System improvements required for successful implementation of that strategy are underlined.

Strategy 1 - Standards and Assessments: We will provide enhanced analytics to support programming that addresses the achievement gap by joining the Common Core Consortium to improve the translation of standards into the classroom.

Strategy 2 - Data Systems: All activities outlined in this grant proposal will be submitted as requirements for the successful implementation of the RTTT proposal to ensure improved statewide availability and use of P-20 longitudinal data among diverse stakeholders to drive greater understanding of how to increase student achievement.

Strategy 3 - Alternative Pathways: Additional teacher licensure data will be included in the P-12 LDS with funding of this grant proposal.

Strategy 4 - Differentiating Performance: A comprehensive professional evaluation system that empowers and incents effective drivers of student achievement based on value-added metrics will be created. These metrics will use linked student-teacher data in combination with licensure information provided by the LDS.

Strategy 5 - Expanded Resources for Peer Review and Assistance: The RTTT proposal will provide funds for training and support for LEAs to use the data and analytic tools developed through funds from this grant proposal.

Strategy 6 - Equitable Distribution: The expanded SERVS data collections will provide Minnesota with information to gauge accurately the distribution of highly qualified teachers. Unique identifiers will be used to link teachers along with their licensure information to the students they teach. These linked data elements in combination with student demographic variables can be used to compute equitable distribution rather than relying on the current self-reporting by LEAs.

Strategy 7 - Improve Prep Programs: The comprehensive statewide longitudinal data system will link teachers and principals to their credentialing program and allow Minnesota to report publicly those data each year by pathway, subject and level.

Strategy 8 - Supporting Teachers and Principals: The new analytic tools will be used by data coaches supported with RTTT funding to foster a data-driven culture through the constructive use of student and school performance data by teachers and principals.

Strategy 9 - Turnaround Struggling Schools: Evaluation systems developed with expanded data and analytic tools will be instrumental in tracking strategy components and effectiveness of school improvement.

Minnesota's Education Performance Vision

While Minnesota students post the highest ACT scores in the country, we also have one of the largest achievement gaps for students of color. The average proficiency rate on state mathematics exams is 63 percent for all students compared to 44 percent for Hispanic and 32 percent for African American students.[9] For the past five years only 32 percent of ACT test takers scored college ready in all four subject areas—English, reading, mathematics and science. [10] Almost half of the Minnesota's class of 2005 students enrolled in a Minnesota public institution of higher education within two years of their high school graduation, but of that group, 38 percent took one or more developmental courses. [11]

Minnesota envisions reshaping education with an emphasis on college and career readiness as well as teacher quality. The Governor's Education Council has identified six indicators (see list below) to serve as ten-year benchmarks for success. Beginning in the 2010 school year, the Minnesota School Report Cards will report the following for individual school districts:

1. Percentage of students completing a college- and career-ready course of study
2. Percentage of students at the college- and career- readiness level on anchor assessments
3. Percentage of students obtaining college credit or a meaningful career certificate in high school
4. Percentage of high school graduates based on National Governors' Association cohort graduation rate data
5. Percentage of high school graduates who enroll in postsecondary education within two years.
6. Percentage of traditional first-year college students not requiring enrollment in any developmental course

A series of regional focus groups of educators, school administrators, legislators, business partners and teacher union members was held in the fall of 2009 to review Minnesota's education performance. Feedback from these groups confirmed Minnesota's Education Performance Vision and identified aspirations based on closing the achievement gap, ensuring high student achievement compared to international benchmarks, ensuring quality and accountability in the classroom, and elevating the teaching profession. These regional groups

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[9] Minnesota School Report Card 2009 MCA II results for Mathematics for all students tested: http://education.state.mn.us./index.html

[10] ACT State Profile Report, Graduating Class 2009, Minnesota

[11] Getting Prepared: A 2008 Report on Recent High School Graduates Who Took Developmental/Remedial Courses Minnesota State colleges and Universities, and University of Minnesota

were aware of current data capacity and supported expanding capacity to provide additional educational services for LEAs.[12]

Ten Policy Initiatives Driving the Expansion of Current LDS Capacity

Minnesota is currently supporting ten major policy initiatives sponsored by MDE, the Bush Foundation, the Joyce Foundation and the P-20 Council. These policy initiatives comprise the key business drivers of this grant proposal. They align with stakeholder feedback and the requirements of the Stabilization Application. Four of the ten initiatives are priorities in Minnesota's Race to the Top proposal. All initiatives represent concrete steps needed to support continuous instructional improvement and informed decision making at the school, district and state levels consistent with Minnesota's Education Performance Vision. Expanding existing LDS data elements and making use of new data linkages with higher education and the workforce are essential to the achievement of the initiatives.

The design work for some of these initiatives is being funded outside of this grant proposal, while the design for others is fully funded through this grant. All ten of the initiatives summarized below rely on expanded data collection and reporting developed through funds from this grant proposal. Text boxes highlight key associations between each initiative and the elements in the America COMPETES Act or the requirements of the LDS. Full descriptions of all ten initiatives are included in Appendix D.

America COMPETES Act–Element 3
Student level information about the points at which students exit, transfer in, transfer out, drop or complete P-16 programs.

Initiative 1–Start Early: Information about preschool students is currently limited to those who receive early childhood special education services, which is less than three percent[13] of the total preschool population. Start Early will add enrollment and demographic data to the P-12 LDS from additional public school programs for preschool children—Early Childhood and Family Education, School Readiness, and Head Start. These data will include information about the specific program site or organization enrolling students and the teachers providing services at those sites. Data on kindergarten students will be expanded to include test results from the Work Sampling System® Kindergarten Entry Developmental Checklist. Districts will use this information to evaluate their programs and support them in understanding the impact of early childhood services on elementary education. The Start Early Initiative is sponsored by the Governor's Early Childhood Advisory council.

Funds from this grant proposal will support the development of an Early Childhood analytic dashboard in the Educator Portal as described in System Improvement B with additional data elements to be identified and collected as part of System Improvement A of this proposal.

Initiative 2–Effective Teacher Preparation: The Minnesota Board of Teaching is redesigning the teacher preparation program approval process. A results-oriented focus on candidate competency and monitoring alternate pathways to licensure based on special permissions will begin in fall 2010. Candidate competence will be measured through the following:

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[12] A complete schedule of focus groups and lists of attendees is included in Appendix D.

[13] MARSS Data Collection 2009, MDE Web Site: http://education.state.mn.us/mde/index.html

Longitudinal Data System Requirement 4
The system must enable the matching of teachers with information about their certification and teacher preparation programs including the intuitions at which they received their teacher training.

- *Work Sample*: Candidates will complete a work sample defined as direct evidence of the candidate's ability to design and implement standards-based instruction and assess student learning.
- *First Year Teacher Survey*: All first year teachers must take this survey based on the Standard of Effective Practice for Teaching and designed by the Minnesota Teacher Education Research Consortium
- *Employer Survey*: This survey, taken by the employers who hire teachers from a Minnesota teacher preparation institution, is similar to the first-year teacher survey. It is based on the ten Standards of Effective Practice and was designed and tested by the Minnesota Teacher Educational Research Consortium.
- *Minnesota Teacher Licensure Examinations*: Test score data from the examinations will provide information not only on passing rates but also on strand scores within content area tests.

All development of testing and survey instruments will be supported outside this grant proposal. Data will be collected through new enterprise collection systems SERVS Staff and SERVS Organization described in System Improvement A of this proposal. Data will be displayed in a secure Teacher Preparation analytic dashboard in the Educator Portal and the P-20 Research Portal of Minnesota described in System Improvement C of this proposal.

Initiative 3–Shared Stakes - Shared Accountability: Minnesota is grappling with the issue of student motivation versus the validity of test results as we develop end of course exams. Test scores will be used in assigning final grades for courses where the exam subjects are taught by local districts. A passing grade in these courses will be required for graduation. While this solves the issue of high stakes decisions based on a single event test, it creates the potential for grade inflation. No matter how poorly a student does on the end of course exam the remaining components of the course grade always seem to balance the exam results.[14] With Shared Stakes–Shared Accountability, Minnesota will publish not only the end of course exam results as required under NCLB but also corresponding course grades for those subjects. These data will be used to compare the distribution of course grades to statewide distributions of scores from the state end of course exams and enable divergent schools to review and voluntarily change their grading practices. Stakeholders will establish performance expectations for the end of course exams that align with college and career readiness, and grades from each school will be analyzed against these expectations.

America COMPETES Act Element 9
Student-level transcript information including courses taken and grades earned.

Funds from this grant are intended to support the collection of course-taking data elements as part of System Improvement A and the development of a secure Shared Stakes analytic dashboard in the Educator Portal described in System Improvement C.

[14] HumRRO study of alignment of instruction to the California High School Exit Examination (CHASSE) content standards (HumRRO http://www.humrro.org/corpsite/node/76).

Initiative 4–RACE TO THE TOP PRIORITY- Q Comp: The Minnesota Legislature enacted Q Comp legislation in July 2005. This voluntary program requires districts and charter schools along with teacher representatives to design and collectively bargain a district or school level plan that includes: 1) Career Ladder/Advancement Options, 2) Job-embedded Professional Development, 3) Teacher Evaluation, 4) Performance Pay, and 5) An Alternative Salary Schedule. Q Comp plans must show how prescribed professional development will increase student achievement. Pay increases must be tied to teachers' ability to improve student achievement during the academic year. Districts receive $260 per student ($169 per student in state aid and $91 per student in board-approved levy) for approved Q Comp plans. Currently, 45 districts and 32 charter schools are participating in the school year 2009-10. Minnesota's Race to the Top strategy is to expand Q Comp to all districts by 2011.

Longitudinal Data System Requirement 3
The system enables the matching of teachers and students identifying particular teachers primarily responsible for providing instruction in various subjects.

Funds from this grant will support the collection of additional data elements as part of System Improvement A for use in comparable statewide teacher evaluation systems. Data will be displayed in a secure Teacher Evaluation analytic dashboard in the Educator Portal described in System Improvement C of this proposal.

Initiative 5–M^2D^3: The Minnesota Model for Data Driven Decisions (M^2D^3) provides a common language of data-driven decision making across the state among policy makers, continuous improvement teams, and classroom teachers. Based on a five-stage model developed in collaboration with Mid-continental Regional Educational Laboratory (McREL), this initiative relies on data currently available in the P-12 LDS. Local data coaches, supported by the Race to the Top funds, will use this model in struggling schools to assist teachers and principals in learning effective uses of data to improve instruction. This vision includes an on-line tool for planning purposes and incorporates data directly from the LDS.

Longitudinal Data System Requirement 5
The system must enable data to be easily generated for continuous improvement and decision-making, including timely reports to parents, teachers and school leaders on the achievement of their students.

An M^2D^3 web-based dashboard is planned for inclusion in the Educator Portal in System Improvement C of this proposal.

Initiative 6–RACE TO THE TOP PRIORITY-The Minnesota Early Indicator Response System (MIERS): The MIERS indicators were developed with stakeholder input from Minnesota public schools, the University of Minnesota, Minnesota State Colleges and Universities, and Minnesota Technical Colleges. They include data elements such as attendance, suspension, number of failing grades or lack of credit accumulation and college readiness scores from ACT's Educational Planning and Assessment System exams (PLAN and EXPLORE). Indicators are used to identify students who are off-track for college and career readiness or at risk of not graduating on time from high school. This initiative will be used in the Race the Top Strategies to turn around struggling schools.

America COMPETES Act Element 10
Student level transcript college readiness test scores.

Funds from this grant are intended to support the definition and collection of additional data elements as part of System Improvement A of this proposal. They will be displayed in an analytic dashboard in the Educator Portal and the P-20 Research Portal as part of System Improvement C.

Initiative 7–Access to Advanced Placement for High Risk Students: Minnesota received a $4.5 million Advanced Placement (AP) Incentive Program Grant from USDOE, to create a statewide AP access system for at risk students. In 2007, less than one percent of Minnesota students in the two largest urban public school districts with high numbers of at risk students passed an AP exam. This initiative will target specific schools with high numbers of low-income students to increase participation in AP courses, increase the numbers of students who take AP tests and improve the scores in English, math, science and critical languages. The goal is annual increases of ten to sixteen percent on all three measures. The success of this effort is dependent on the inclusion of AP data in the P-12 warehouse. AP exam scores and AP course-taking results in combination with state test scores will be published in a dashboard in the Educator Portal. New data elements identified as part of this project will come from other college-readiness data sources including scores from ACT Educational Planning and Assessment System tests (PLAN and EXPLORE), Advanced Placement test results, College Level Examination Program test results and course-taking information.

America COMPETES Act Element 11
Data that provide information regarding the extent to which students transition successfully from secondary to postsecondary education including whether students enroll in remedial coursework.

While the development of indicators to support this effort will be accomplished through the Advanced Placement Grant funding, a dashboard planned for the Educator Portal will depend on LDS data collected as part of this grant proposal through System Improvement A.

Initiative 8–RACE TO THE TOP PRIORITY- Value-Added Teacher Evaluation:
The Bush foundation is funding an ambitious set of projects to reform teacher preparation programs across Minnesota. At the core of this work are value-added metrics based on high stakes and local test scores linked to course grades and teachers. With assistance from theValue-Added Research Center (VARC) these results will provide local feedback on classroom, grade, school and district productivity. Of equal importance will be the use of value-added data to evaluate the effectiveness of teacher preparation programs. Both data sets will be avaliable in the P-12 warehouse for use in Minnesota schools. This iniative is included in the section on Differntiating Performance in the Race to the Top Application. The vision is to instutite a comprehensive, statewide longitudinal data system that links teacher and principal effectiveness to their credentialing program and publicly reports the aggregated results by program, pathway, subject and level each year.

Longitudinal Data System Requirement 4
The system must enable the matching of teachers with information about their certification and preparation programs including the institutions at which they received their training.

Funds from this grant proposal are intended to support the definition and collection of additional data elements as part of System Improvement A. The data will be displayed in an analytic dashboard in the Educator Portal as part of System Improvement C.

Initiative 9–RACE TO THE TOP PRIORITY- The P-20 Research Portal of Minnesota (P20 RPM): The P-20 RPM is envisioned as a clearinghouse for identifying best practices through shared data within Minnesota. It will provide access to data for research on predictors of long-term student success to define "what makes a difference" in the academic experiences. The intention is to link data on the approximately 40,000 graduates from the P-12 systems who attend a Minnesota postsecondary institution at the undergraduate level.[15] The P-20 RPM will document student, school, and college performance to address questions about Minnesota's investment in education. Data from public and private institutions of higher education and the Department of Employment and Economic Development[16] will be maintained in a linkable statewide education longitudinal data system (SLEDS). Research in three primary areas is facilitated by accessing SLEDS data in the P20 RPM. Those areas are:

America COMPETES Act Element 10
Student level transcript college readiness test scores.

1. *System Performance Analysis* focused on the overall educational system, identifying aggregate performance at key points in time.
2. *Educational Attainment Gap Analysis* based on the performance of students defined by their demographic, socio-economic or geographic characteristics.
3. *Program and Intervention Analysis* designed to improve student educational attainment using evaluation of educational programs and interventions.

This initiative is part of System Improvement C of this proposal and the data display and analytic tools are funded entirely through this grant proposal. Data from the P-20 Statewide Education Longitudinal Data System warehouse developed in System Improvement B will be used to populate this portal.

Initiative 10–Transition from School to Workforce: Data on the transition from school to the workforce is envisioned as a separate section of the P-20 Research Portal of Minnesota. The Joyce Foundation and the State of Minnesota are collaborating on the Minnesota FastTRAC (Training, Resources and Credentialing) initiative. FastTRAC aims to build a statewide "stackable credentials" framework through coordinated programming and policy alignment across Adult Basic Education, the Work Force Center System, the Minnesota State College and University System, and community-based training and employment service organizations. Funds from the American Recovery and Reinvestment Act and Minnesota's Workforce Investment Act Incentive have been dedicated to develop the FastTRAC framework. Data from those performance measurement activities will be included in

Longitudinal Data System Requirement 1
The system must enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of post secondary education, the 21st century workforce, and the Armed Forces. Such a system must include data at the individual student level from preschool through post secondary education into the workforce (e.g., employment, wage and earnings information).

[15] Minnesota Office of Higher Education. (2009). *College Participation Rates*. Retrieved 24 Nov 2009. http://www.ohe.state.mn.us/mPg.cfm?pageID=753

[16] Plans for DEED data are included in Appendix D.

SLEDS to enable Minnesota to identify labor market payoffs as a result of this effort. Data from the Adult Basic Education Program will be included in the P-12 LDS.

Adult Basic Education data elements will be stored in the P-12 warehouse as part of System Improvement A. All post secondary and workforce data elements will reside in the P-20 Statewide Longitudinal Education Data System warehouse as part of System Improvement B of this proposal and displayed in the P-20 Research Portal of Minnesota as part of System Improvement C.

Project Partners

Minnesota's Education Performance Vision relies on a comprehensive P-20 system with linked data collected from multiple state agencies. MDE is partnering with six other Minnesota organizations including three cabinet-level state agencies to share, link and manage P-20 education and workforce data sets needed to support the Ten Policy Initiatives in Minnesota's Education Performance Vision.

- Minnesota Office of Higher Education (OHE) is a cabinet-level state agency providing students with financial aid programs and information to help them gain access to postsecondary education. OHE collects unit record data on students enrolled at public and private institutions of higher education and will join MDE on the oversight of the P-20 Statewide Longitudinal Education Data System

- Office of Enterprise Technology (OET) provides the leadership and services to improve government through the effective use of information technology. OET will house the SLEDS warehouse and provide secure access to authorized users while protecting the privacy of the data in this cross-agency repository.

- Minnesota P-20 Education Partnership consists of major statewide education groups and non-educational organizations with an interest in P-20 education. The Partnership, now recognized in state statute, will serve as the Governing Body for the P-20 SLEDS warehouse. The Partnership was established to maximize achievement of all students from early childhood through elementary, secondary, and postsecondary education.

- Department of Employment and Economic Development (DEED) is the state's principal economic development agency with programs promoting workforce development, international trade, and community development as well as business recruitment, expansion and retention. DEED will provide unit record workforce and labor data for the P-20 SLEDS warehouse.

- State Advisory Council on Early Childhood Education and Care makes recommendations to the Governor and legislature. The Council will collaborate with MDE to expand data collection for early childhood providers to better understand the impact of early services on students and educational outcomes.
- Minnesota Board of Teaching provides leadership for improvements in teacher education programs to assure that the state has well-qualified, professional teachers. The Board will

work with MDE to expand data collection regarding teacher certification, licensure and information about teacher preparation institutions.

MDE has a history of successful collaboration with the Office of Enterprise Technology and the Office of Higher Education. The Board of Teaching and Early Childhood Divisions are housed within MDE and collaborate daily on a variety of work tasks. MDE has been a member of the P-20 Partnership since 2005. This grant will provide an opportunity to expand Minnesota's collaborative network to include the Department of Employment and Economic Development.

Minnesota Statutory Authority

This grant proposal is prepared with support from the highest levels within the State. Legal authority for data collection within MDE is authorized in Minnesota state law. Minnesota Statutes (M.S.) 125B.07 Subd. 6 DEPARTMENT DUTIES outlines the requirement to maintain a data acquisition calendar, authorization to develop and authorize computerized data systems, certify software vendors and maintain a list of essential data elements about pupils, licensed and non-licensed staff and educational programs.

In 2008, the Minnesota Legislature passed a law authorizing inter-agency data sharing between MDE and OHE. The two agencies may share student-level data elements for purposes of conducting research to answer questions identified in the vision for the Minnesota Education Longitudinal System. Minnesota Statutes Section 13.31 subd.11.

Next Steps

Minnesota's clear vision for improved education includes systemic reform efforts, interagency partnerships, and executive sponsorship from the Governor and his cabinet. This work is authorized through state statutes. A solid technical foundation supporting Minnesota's education data was built with a combination of state and federal funding including the 2006 LDS award.

Even with this strong support, immense resources are still required to upgrade the legacy COBOL systems designed in the 1980s. Many of our daily operations continue to rely on these arcane computer programs. We do not yet have the full set of interoperable data structures needed to support flexible analysis. Without funds from this grant proposal, we estimate that it will be another six to ten years before we are fully able to modernize our data systems.

The aggressive timeline of Minnesota's education agenda requires the coordination of longitudinal data across multiple programs. Without the System Improvements to the underlying data infrastructure included in the grant proposal, data to comply with federal requirements and meet Minnesota's Education Performance Vision cannot be collected and coordination of that information will not be possible.

(b) Project Outcomes Related to System Requirements and Implementation

Proposed upgrades to Minnesota's data systems are based on the three System Improvements Goals described in Section (a), each System Improvement Goal is implemented through one project outcome as listed below:

- *System Improvement Goal A*—**Outcome A**: Minnesota Department of Education (MDE) Enterprise Data Collection System
- *System Improvement Goal B*—**Outcome B:** P-20 Warehouse to be housed at Office of Enterprise Technology (OET)
- *System Improvement Goal C*—**Outcome C:** Analytic Portals housed at MDE and OET

Seven specific products will be delivered to meet the three outcomes. Each product includes a series of features and benchmarks. Minnesota will develop the products shown in grey in Figure 1, which complement and interact with existing products shown in white to create a fully integrated, statewide education data system.

Minnesota 21 Century Education Data System

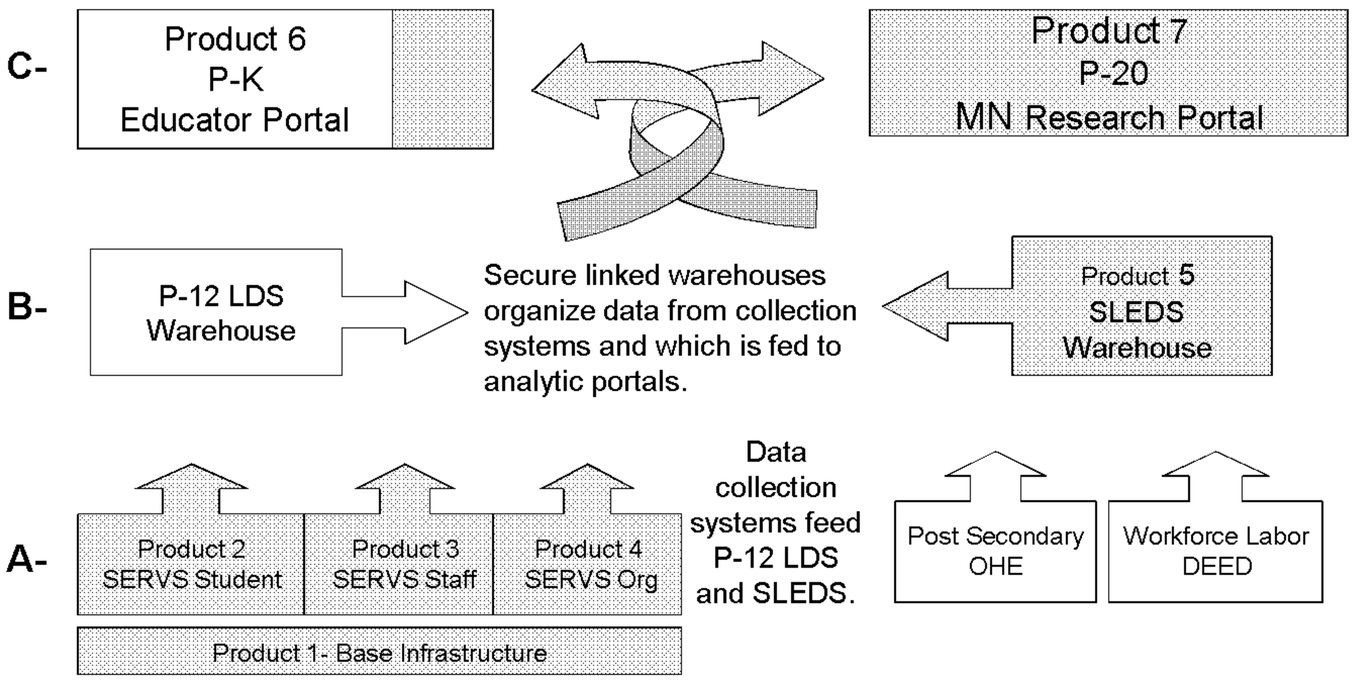


Figure 1

Each product will include 1) requirements clarification focus group meetings of both internal and external subject matter experts, 2) functional definitions of the product and features, 3) design and coding, 4) integration testing, 5) quality assurance testing, 6) deployment and decommission of legacy systems or products, 7) user documentation and 8) training materials for data managers and data administrators. Features and benchmarks unique to each product line are outlined below as associated with the project outcomes.

Outcome A: MDE Enterprise Data Collection Systems

This outcome focuses on needed upgrades to foundational data collection systems at MDE, some of which are already in progress but must be accelerated to meet the timelines set forth in the America COMPETES Act. Detailed plans are outlined in four product lines: 1) Base Infrastructure 2) SERVS Student, 3) SERVS Staff and 4) SERVS Organization. These products will transition our data out of the current silos managed by individual program areas into an

agency-wide enterprise system eliminating duplicate collections and ensuring consistency of data definitions.

Product 1 – Base Infrastructure: All three SERVS collection systems—Student, Staff and Organization—will share a common base infrastructure designed to accept and process data either on demand or in batch mode and support operational reports for data validation by searching students or staff in context with drill down capability for more detailed information. Data will be collected via flat file, user interface or SIF message. Data will map to the enterprise data model ensuring that given data elements are collected only once and shared among all interoperable systems within MDE, postsecondary and workforce data repositories.

Automated data edits occur through coordinated review and verification processes made available relative to the security classification of the data and the individual submitting data or requesting to view operational data. Figure 2 illustrates how data collected through SERVS is defined by the EDM and stored in the warehouse protected by a security layer. The outer most ring of the circle shows how external users interact with this data through various submission options and report or view options depending on the task. Also included is an automated SIF based submission option. The two middle rings identify the service layers that enforce both general edits to support the connections between web interfaces as well as specific data edits that permit valid inclusion in the EDM. At the center of the ring is the full database table structure modeled on SIF objects that permits relational viewing of all data elements.

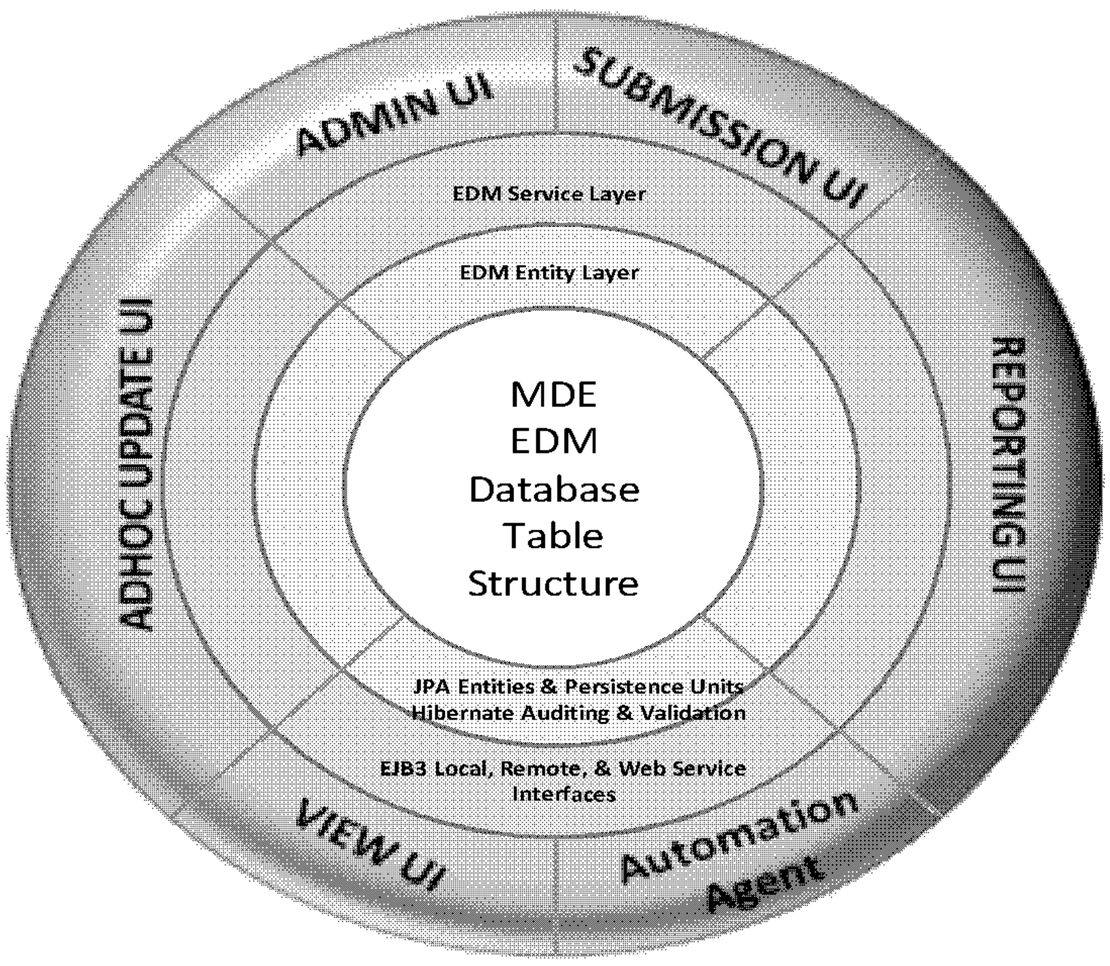


Figure 2

1. Product – Base Infrastructure:

1.1. Feature – SIF Facilities

1.1.1. Purchase ZIS and Adapters for MDE and SIF Pilot Sites

1.1.2. Develop pilot schedule and identify selected functionality for inclusion in the pilot
1.1.3. Implement Student Locator and SIF supported messages among pilot sites
1.1.4. Develop Scalable Plan based on Pilot to bring implementation statewide through Race to the Top Funding

1.2. Feature – Enterprise Data Model

1.2.1. Expand Current SIF Data Model to include additional data elements for Ten Policy Initiatives in section(a) of this proposal

1.3. Feature – Commercial Off-the-Shelf Products

1.4. Feature – Minnesota Common Course Catalogue Structure

1.4.1. Purchase servers and software licenses needed to support SIF Facilities and EDM

Product 2 - SERVS Student: Minnesota recently upgraded the Minnesota Automated Recordkeeping and Reporting System (MARSS) from a legacy COBOL data system. State funding was used in the first step of restructuring. This legacy system is now in an interim stage, MARSS WES, an interoperable web-based system, ensuring the validity and reliability of the data enforcing edits at the time of collection. The final transition to SERVS Student will permit the expansion of data elements to meet the business needs of Minnesota's Ten Policy Initiatives.

When complete this product will be a fully developed, high quality, web-based P-12 student data collection system for existing student elements including GPA, Class Rank, courses grades, and new data elements including expanded college readiness test scores. All data elements will be included in the MDE Data Dictionary. The data structures permit student links to college readiness, transcript and early-response indicators and support Ed Facts reporting. SERVS Student will collect the entire student data set needed for compliance with the America COMPETES Act. Complete functional specification and user documentation will be developed.

2. Product – SERVS Student:

2.1. *Feature – E-Transcript Collection and Reporting*: Identify data elements for SERVS Student to provide core transcript information including GPA, class rank and course grades

2.2. *Feature – Minnesota Common Course Catalogue*: Develop a Minnesota Common Course Catalogue based national model and current district course offerings to link teachers to courses to students

2.2.1. Develop training schedule for teaching districts how to match their current course offerings to the Minnesota Common Course Catalogue in preparation for data collection

2.3. *Feature – Student Roster*: identify steps in expanding current pilot tool for statewide release in the Educator Portal

2.3.1. Identify steps in including links to teacher data with the roster pilot
2.3.2. Develop district training program that integrates with M^2D^3 data analysis and planning processes for school improvement

2.4. *Feature – Data Manager Training Materials:* Convene Data Management Steering Committee to develop transition plan for districts to move LEA data managers from

Program Finance Specific MARSS Coordinators to enterprise SERVS Student Coordinators including user documentation

2.5. *Feature – Data Record Linking System (DRLS):* Identify technical requirements for statewide implementation of a student ID look-up system to implement automatic data edits that will eliminate duplicate student data entries

2.5.1. Implement DRLS in all student collections to ensure that data is only associated with students in the EDM. If the student is not recognized through the unique student identifier, LEAs will be required to create a new student ID in order to complete the data submission

2.6. *Feature – Early Childhood Data Collection:* Leverage DRLS in objective 1.6 to allow early childhood providers to create unique student identifiers in the EDM to register regular education preschool students to be included in the P-12 LDS

2.6.1. Convene a working group of the Data Management Steering Committee and Early Childhood staff to develop training and outreach program to identify and train providers on the new data collection process

2.7. *Feature – College and Career Readiness Data Collection*: Identify and implement data cleansing procedures with student level EXPLORE and PLAN, E-Pass, ACT, CLEP, AP, IB and Post Secondary Enrollment (PSEO) for inclusion in the P-12 LDS

2.7.1. Ensure that student records are matched with known IDs in the EDM and, if not, new unique IDs are created before inclusion in the P-12 LDS

2.7.2. Ensure that organization IDs are known in the EDM in preparation for inclusion in the P-12 LDS

2.8. *Feature – ED Facts Gap Elimination:*

2.8.1. Identify additional data elements that are supported by current policy programs and initiatives for inclusion in the P-20 LDS

2.8.2. Identify training and implementation schedule for inclusion of additional elements

2.9. *Feature – Adult Basic Education Data collection*: Convene a working group of the Data Management Steering Committee to identify data elements to be included in the P-12 LDS

2.9.1. Identify training and implementation schedule for inclusion of additional elements

Product 3 - SERVS Staff: SERVS Staff will expand WES technology to include the collection of staff data by combining two existing COBOL-based collections—State Teacher and Administrator Reporting (STAR) and Personnel Licensure. Like SERVS Student, SERVS Staff will incorporate web-based edits at the time of collection to minimize errors and provide validation checks. It will include new data from the Minnesota Common Course Catalogue permitting teacher and student links. When combined with teacher certification information, it will create a cornerstone for P-20 education data analysis. All new data elements will be mapped to the EDM and included in the MDE Data Dictionary. Full functional and user documentation will be developed for this product.

3. <u>Product – SERVS Staff</u>:

3.1. *Feature – Minnesota Common Course Catalogue*: Leverage work done to expand course directory and course section identifiers for inclusion in SERVS Staff to permit the linkage of students and teachers and courses

3.2. *Feature – Teacher Certification Collection:* Add information to be collected from the Board of Teaching's new initiatives to gather additional teacher certification data

3.2.1. Index current elements and new elements to be added

3.3. *Feature – Teacher Preparation Institution Collection*: Add elements to be collected through the Board of Teaching that define specific program offerings at teacher preparation institutions

3.3.1. Index current elements and new elements to be added

3.4. *Feature – Data Record Linking System (DRLS):* Identify technical requirements for statewide implementation of a teacher ID look-up system to implement automatic data edits that will eliminate duplicate teacher data entries.

3.4.1. Implement DRLS in all staff collections to ensure that data is only associated with teachers in the EDM. If the teacher is not known in the EDM through the unique teacher identifier, LEAs will be required to create a new teacher ID in order to complete the data submission

3.5. *Feature – Staff Roster*: In similar fashion to the student roster, this feature will be used to analyze groups of teachers or administrators through SERVS Staff data

3.6. *Feature – Data Manager Training Materials*: Convene Data Management Steering Committee to develop transition plan for districts to move LEA data managers from Program Finance Specific MARSS Coordinators to enterprise SERVS Staff Coordinators

3.6.1. Develop training materials

Product 4 - SERVS Organization: This product includes leveraging Wes technology to restructure Org Unit, the current organizational data directory system. SERVS Organization will contain uniform directory information as well as information from other organizations such as finance. It will permit links between student and teacher data. The Minnesota Common Course Catalogue is included in this product. All new data elements will be included in the MDE Data Dictionary and full user documentation and functional documentation will be provided.

4. Product – SERVS Organization:

4.1. *Feature – Minnesota Common Course Catalogue*: Each LEA will be required to assign section numbers to Common Course Catalogue courses taught locally for the purposes of establishing the link between teachers and students within the LEA

4.2. *Feature – Standardization of Directory Information*: Directory information must be standardized for inclusion in the data dictionary to ensure interoperability with other state agency data systems including the Minnesota Department of Finance's Accounting and Procurement System

4.2.1. Teacher preparation institutions

4.2.2. Early childhood sites

4.3. *Feature – Data Manager Training*: Convene Data Management Steering Committee to develop transition plan for districts to move School Site Verification Coordinators from legacy system Org Unit requirements to enterprise SERVS Organization Coordinators

Outcome B: P-20 Warehouse

This outcome has a single product: The Statewide Longitudinal Education Data System (SLEDS). Minnesota has education data in a variety of operational warehouses under the supervision of multiple state agencies but needs a linkable interagency warehouse to store selected data elements collected through each partner agencies' operational data systems. To

link these various data sets initially only directory information for records will be exchanged between the SLEDS team and the contributing agency. MDE will use the data record linking system to create random, anonymous identification numbers that will be returned to the requesting agency within 24 hours. New SLEDS identifiers will be created and attached to the original directory information for each record. This SLEDS ID will create known students in the SLEDS warehouse data model for use in future linking efforts. All data will be defined in the SLEDS data dictionary based on the MDE prototype. Full functional and user documentation will be developed for this product.

Figure 3 below illustrates the duties of each agency with respect to the interagency data exchange process:

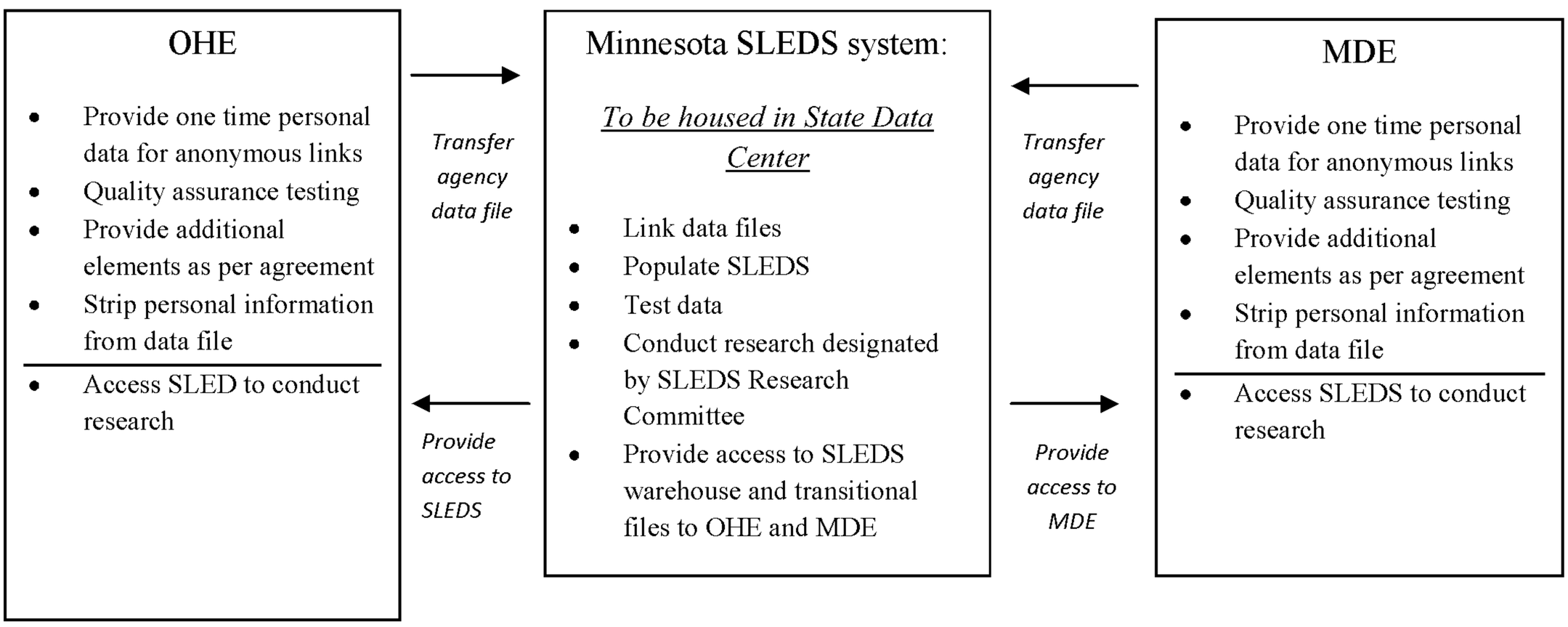


Figure 3

5. Product – Statewide Longitudinal Education Data System (SLEDS):
   - 5.1. *Feature – Data Warehouse Complete*: Analyze technical needs to establish plan for warehouse infrastructure
     - 5.1.1. Define requirements for analytic interface
     - 5.1.2. Leverage Security Framework and possibly business Intelligence tool expertise from P-12 LDS
   - 5.2. *Feature – Data Exchange Facilities:* Develop service level agreement with OET to establish interagency interoperability with data exchanges among MDE, OHE, DEED and OET
   - 5.3. *Feature – Common Terms Defined*: Leverage work done for the P-12 LDS to develop data dictionary to define data elements for SLEDS data
   - 5.4. *Feature – Inter-agency Agreements signed*: Convene SLEDS governance groups including the Governing Body, LDS Research Committee and LDS Data Committee to develop research agenda and identify additional data elements to be included in SLEDS
     - 5.4.1. Define Adult Basic Education data elements to be included
     - 5.4.2. Define workforce and labor elements to be included
     - 5.4.3. Define Service Level Agreements with OHE and partner agencies

Outcome C: Analytic Portals
Minnesota is a classic data rich, information poor state. Current analytic tools tend to be compliance-oriented rather than supportive of actionable steps for improved instruction and learning. This outcome focuses on the need to 1) leverage our current investment in the business intelligence tool, 2) upgrade existing analytic features in the Educator Portal and 3) create a new Research Portal of Minnesota (P-20 RPM) to analyze P-20 education data. These portals will provide, user-friendly analysis features tailored to teachers, administrators, and school improvement groups based on specific data sets, such as teachers linked to students or assessment linked to attendance. We will add graphic information system (GIS) display capacity to features in this product line to publish statistics, such as equitable distribution of teachers, demographic and test scores, and teacher retention juxtaposed against location.

Product 6 - Expanded Educator Portal: This web site is the foundation for access to education data for P-12 users. The features listed below support Minnesota's Policy Initiatives One through Eight as outlined in section (a) of this proposal.

6. Product – Expanded Educator Portal:
   - 6.1. *Feature – New Data Elements Defined*: SERVS Student, SERVS Staff and SERVS Organization data elements defined for each of the policy areas below
     - 6.1.1. Define Start Early data requirements
     - 6.1.2. Define Effective Teacher Preparation M2D3 data requirements
     - 6.1.3. Define Shared Stakes-Shared Accountability data requirements
     - 6.1.4. Define Q Comp data requirements
     - 6.1.5. Define M^2D^3 data requirements
     - 6.1.6. Define MIERS data requirements
     - 6.1.7. Define AP Access data requirements
     - 6.1.8. Define Value-Added Evaluation Analysis data requirements
   - 6.2. *Feature – Technical Requirements*: Identify technical requirements needed to create additional analytic capacity
     - 6.2.1. Develop new tabs in the Educator Portal dedicated to providing data for each of the policy initiatives in Feature 6.1
     - 6.2.2. Include additional data elements in P-12 LDS
     - 6.2.3. Leverage business intelligence tools and student roster capability for each of the policy initiatives in Feature 6.1
   - 6.3. *Feature – Dashboards*: Develop dashboards for each of the 6.1 initiatives
   - 6.4. *Feature – Data Coach Materials:* Develop training materials and programs to support LEA user acceptance and implementation

Product 7 - P-20 Research Portal of Minnesota
The P-20 RPM is a new analytic portal to be developed with funds from this award to make SLEDS data available to educators and education researchers. This product will leverage the security framework and the expertise developed with Information Builders over the past several years within the Identify Management System at MDE. Data from SLEDS combined with input from the P-20 Governing Body described in section (d) will be used to design Initiatives Nine and Ten of Minnesota's Ten Policy Initiatives described in section (a) of this proposal.

7. Product – P-20 RMP:
   7.1. *Feature – New Data Elements Defined*: Data indicators defined based on available data
      7.1.1. Define P-20 RPM requirements
      7.1.2. Define Systems Performance analysis requirement
      7.1.3. Define Educational Attainment Achievement Gap analysis requirements
      7.1.4. Define Program and Intervention analysis requirements
      7.1.5. Define School to Work analysis requirements
      7.1.6. Identify technical requirements to create additional analytic capacity
      7.1.7. Identify the reporting structure for the SLEDS data
      7.1.8. Leverage business intelligence tools and student roster capability for each of the policy initiatives in Goal 6.1
   7.2 *Feature – Dashboards:* Develop dashboards for 7.1 initiatives
   7.3 *Feature – Data coach training materials*: Create training materials and program to support user acceptance and implementation

(c) Timeline for Project Outcomes

This timeline is based on a start date of June 1, 2010 with work scheduled over the following three years. The initial work of this grant proposal will focus on the migration of legacy collection systems to SERVS web-based platforms including the addition of the new P-12 data elements required by Minnesota's Ten Policy Initiatives described in Section (a). Focus will then shift to the development of the SLEDS warehouse. Requirements gathering to support the development of the analytic tools in the Educator Portal and the P-20 RPM will occur in parallel with development of the SLEDS warehouse.

A summary Gantt chart showing work breakdown structures and schedules is included in Appendix A. Grant proposal activities will be tracked separately from other state and federal funding sources through positive time reporting procedures of MDE employees. Each pay period employees will document the amount of time devoted to product areas in their schedules. We will not have another SLEDS grant active during this three-year period.

Outcome A: Enterprise Data Collection Systems

Product 1 - Base SERVS Infrastructure: Upgrades to the base infrastructure will continue throughout the three-year term of this grant proposal. Based on projections done in 2009, we estimate work for this product will require 16,256 person hours over term of the award. We will begin with changes to the Enterprise Data Model (EDM) facilities upon award of grant funds. The basic design of the EDM is already in place and will be upgraded throughout this project as we add collection and reporting facilities and additional data elements including the Minnesota Common Course Catalogue reporting activities. Commercial-off-the-Shelf (COTS) products will be added over the course of upgrading along with the district and data management vendors SIF Pilot.

The entire product is scheduled for completion on May 8, 2012 and the interim delivery dates for Base SERVS Infrastructure features are shown below:

1.1	SIF Facilities for SIF Pilot	September 26, 2012
1.2	Enterprise Data Model	December 12, 2011
1.3	Common off the Shelf products	May 8, 2013
1.4	Minnesota Common Course Catalogue	December 12, 2011

Product 2 - SERVS Student: Work on SERVS Student will begin as soon as funds are awarded. The estimated number of hours need is 12,114 hours. The entire product is scheduled for completion on December 19, 2012 with delivery dates for individual Product 2 features shown below:

2.1	E-transcript collection and reporting	June 8, 2011
2.2	Minnesota Common Course Catalogue	June 8, 2011
2.3	Student roster	June 8, 2011
2.4	Data manager training	December 19, 2012
2.5	Data Record Linking System	August 1, 2012
2.6	Early childhood data	August 1, 2012
2.7	College and career readiness data	August 1, 2012
2.8	Ed Facts gap elimination	August 1, 2012
2.9	Adult Basic Education	August 1, 2012

Product 3 - SERVS Staff: Work on SERVS Staff will begin as soon as the funds are awarded. The estimated number of hours needed is 12,114. The entire product is scheduled for completion in November 2012 with delivery dates for specific features shown below:

3.1	Minnesota Common Course Catalogue	June 8, 2011
3.2	Teacher certification collection	November 12, 2012
3.3	Teacher prep institution collection	November 12, 2012
3.3	Data record linking	November 12, 2012
3.4	Staff Roster	November 12, 2012
3.5	Data manager training	November 12, 2012

Product 4 - SERVS Organization: Work on SERVS Organization will begin as soon as the funds are awarded. The estimated number of hours needed is 10,064. The entire product is schedule for completion in December 2012 with delivery dates for specific features shown below:

4.1	Modify existing org directory	March 14, 2012
4.2	Identify teacher prep data	March 14, 2012
4.3	Identify early childhood data	March 14, 2012
4.4	Minnesota Common Course Catalogue	March 14, 2012

Outcome B: P-20 Warehouse

Product - 5 SLEDS Warehouse**:** Work on SLEDS will begin in June of 2010. The estimated number of hours for this effort is 10,064. The product is scheduled for completion in May 2012 and delivery dates for specific features are shown below:

5.1	Data warehouse	December 24, 2012
5.2	Data exchange facilities	November 27, 2012
5.3	Common definitions of terms	July 10, 2012
5.4	Interagency agreements	July 11, 2011

Product 6 - Expanded Educator Portal: Gathering of requirements with focus groups will begin upon award of funds. The estimated number of hours for this effort is 18,904. This product is scheduled for completion in May 2013 with delivery dates for specific features shown below:

6.1.1	New data elements defined	October 31, 2011
6.1.2	Identify technical requirements	October 31, 2011
6.1.3	Create dashboards	January 7, 2013
6.1.4	Develop data coach materials	January 7, 2013

Outcome C: Analytic Portals

Product 7 - Enhanced Analytics P-20 RPM: Requirements gathering with focus groups will begin upon award of funds. The estimated number of hours for this effort is 18,904. This product is scheduled for completion in May 2013 with delivery dates for specific features shown below:

7.1 Define new data elements	October 11, 2012
7.2 Develop Dashboards	October 11, 2012
7.3 Develop data coach materials	June 25, 2012

Based on analysis done in 2009, we believe this is a reasonable timeline. Experience MDE staff (See section (e) for qualifications) will lead the teams for each of the Product lines: 1) Craig Rhombs-Product teams 1 and 2, Sally Gordon-Product 3, Jonathan Lord-Product 4, Jennifer Marier- Products 5, 6 and 7. With current MDE staff skill sets augmented by contractors hired for targeted complementary skills and abilities, we are fully capable of staffing product teams to meet the timelines set forth in this proposal.

(d) Governance Plan and Project Management

This ambitious project envisions a high degree of coordination among a number of groups and governance structures. This grant proposal is prepared with full support of not only Minnesota Department of Education (MDE) executive leadership, but also with the executive leadership of the six partner agencies. The Office of Higher Education (OHE) and the Office of Enterprise Technology (OET) will be involved with key management tasks on a daily basis. The remaining four partners will provide policy support and oversight. MDE has an exemplary inter-agency governance model and a strong project management office; together they ensure the success of this project.

Governance Structure

The *Minnesota Education Data Systems for 21st Century Learning* grant proposal has two distinct, but interoperable data warehouses to organize and structure education data for two separate, analytic portals. Each warehouse will have separate but complementary governance structures. The P-12 LDS will contain the full set of operational data necessary for MDE that is

strategically managed by the MDE LDS Data Management Steering Committee. SLEDS will contain selected P-12 elements as well as recommended elements from the OHE and Department of Employment and Economic Development (DEED). All data in SLEDS will be strategically managed by the P-20 Governing Body.

P-12 Governance**:** Education Commissioner, Alice Seagren, chairs the Executive Steering Committee for the MDE LDS Data Management Team. Membership on this Committee was established under the initial 2006 LDS grant governance structure and will remain in place though the next phase of the LDS. The primary responsibility of this Committee is to provide strategic oversight to ensure that the grant work and use of grant funds remains aligned with Minnesota's Education Performance Vision and Minnesota's Ten Policy Initiatives.

Steering Committee members include the Director of Information Technology, the Chief Information Officer, and Directors of Program areas including Assessment, School Improvement, Board of Teaching, Personnel Licensure, Early Learning and NCLB Programs. Each committee member represents one or more of the program areas responsible for the daily execution of the Ten Policy Initiatives. Their representation ensures continuous program area input and oversight of products. Directors will continue to conduct stakeholder meetings to ensure stakeholder feedback and user input play a prominent role in both 1) the definition of new data elements defined as part of the Ten Policy Initiatives and 2) the design and implementation of each new analytic tool outlined in this grant proposal.

P-20 Governance**:** SLEDS, the inter-agency data warehouse described in this proposal, will be jointly managed by MDE and OHE and hosted in the State Data Center housed at OET. SLEDS will leverage existing MDE expertise to combine selected secondary data elements collected by MDE, selected postsecondary data elements submitted to OHE, and selected data from DEED and Adult Basic Education programs as agreed upon by the P-20 Governing Body. OET will develop service level agreements governing on-going operational technical support, security and data access processes and procedures. Specific SLEDS governance committees are listed below:

- *The P-20 Governing Body***:** is responsible for reviewing and approving the on-going research and evaluation proposals set forth by the Research and Data Advisory Committees. As a sub-group of the P-20 Partnership, the Governing Body was established to direct the development of the inter-agency data warehouse.
- *Research Committee***:** is responsible for reviewing and developing research and evaluation proposals and making recommendations to the Governing Body.
- *Data Advisory Committee***:** is responsible for reviewing and evaluating proposals through the lens of technical expertise on data structures and linkages.
- *System Coordinators* (at both MDE and OHE): are responsible for daily operations and working with IT staff on data security, data transfer, and data file construction issues.
- *IT Staff* (at both MDE and OHE): are responsible for DRLS processes to match directory information and assign unique, anonymous and secure SLEDS IDs.
- *State Data Center***:** is responsible for housing the SLEDS data system and related server equipment. The State Data Center is managed by OET

This governance structure will maintain research efforts by continuing to negotiate the addition of P-20 data elements that can be supported by the analytic tools developed under this proposal.

Project Management

As the prime recipient of the grant funds, MDE will provide project management for all outcomes and products. The project will reside in MDE's Information Technologies Division with participation from the Divisions of Assessment, School Improvement, No Child Left Behind Programs, and Compliance and Assistance. Information Technology staff will provide the technical resources and other divisions will provide subject matter expertise required to define data sets and design dashboards. Division directors will be responsible for stakeholder input to ensure that teachers and educators perspectives are represented in this work. MDE staff will coordinate with OET to host SLEDS in the State Data Center facilities (Outcome B - Product 5, the SLEDS warehouse). We will coordinate with OHE to manage data expertise for the P-20 RPM products (Outcome C - Product 7, P-20 RPM Analytic Portal).

The organizational chart below depicts reporting relationships and identifies responsible parties within MDE and the cross agency executive support.

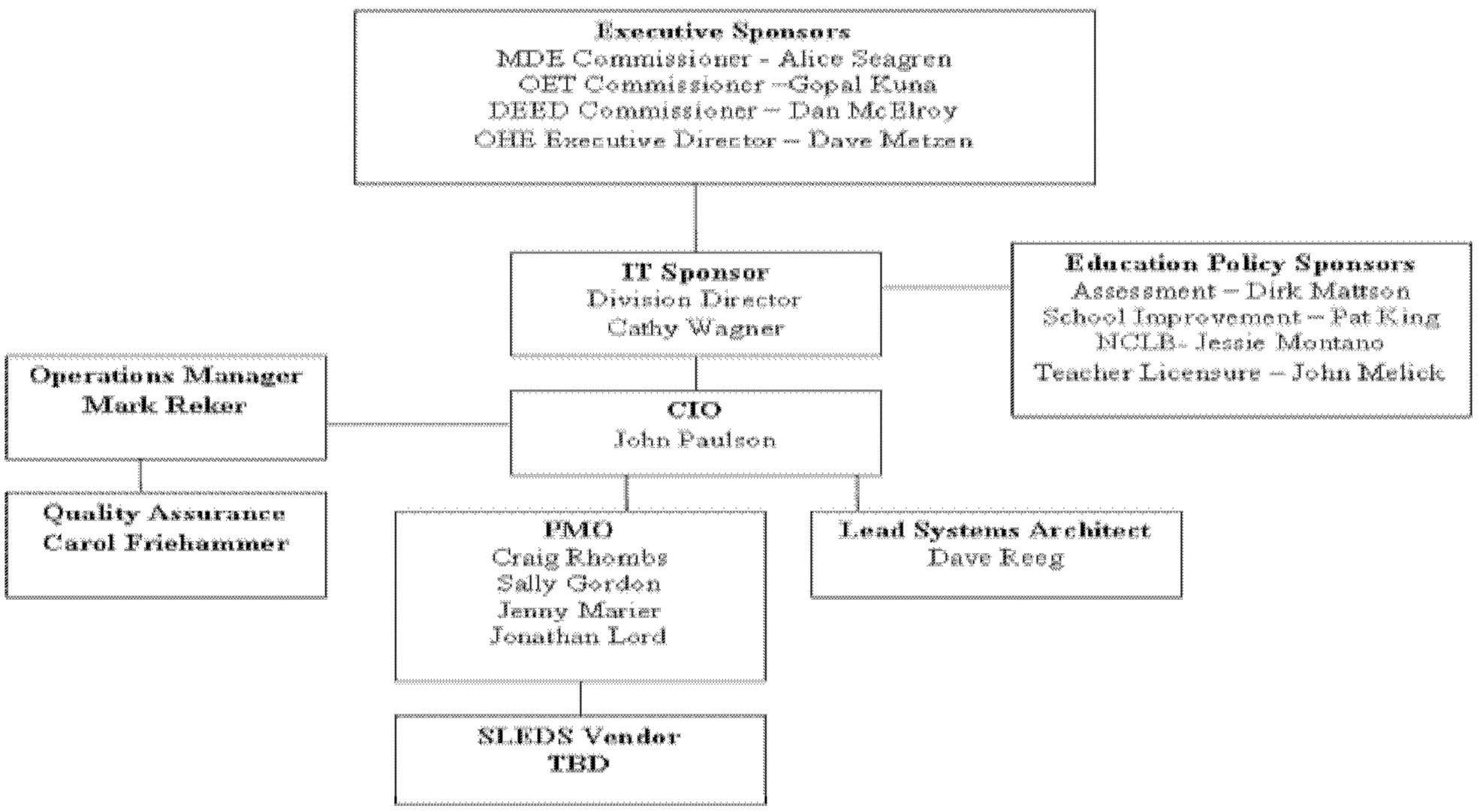


Figure 4 Organizational Structure

Oversight Entities: The MDE Data Management Steering Committee will provide oversight for MDE LDS activities to determine policy, approve projects and expenditures, review deliverables, anticipate risks, and resolve issues for all SERVS product lines and the Educator Portal expanded analytics and dashboards (Outcome A - SERVS Products 1 through 4 and Outcome C - Product 6, Expanded Educator Portal). The SLEDS Governing Body will determine policy, approve projects and expenditures, review deliverables, anticipate risks and resolve issues for SLEDS and the P-20 RMP product lines. (Outcome B - Product 5, the SLEDS warehouse, and Outcome C -

Product 7, the P-20 RPM Analytic Portal). As a state agency, MDE is required to have a disaster recovery and risk mitigation plan on file. Activities associated with this project are covered in that plan.

Management Controls: The State of Minnesota Enterprise Project Management Office's best practices methodology will be employed, including the following project life-cycle phases: 1) requirements gathering or clarification, 2) functional definition, 3) design and code, 4) integration testing, 5) quality assurance and 6) deployment/decommission to transition to operational status. This phased approach includes clear analysis and design to provide a detailed explanation of strategic outcomes and deliverables while avoiding duplication of effort. We will pair experienced project managers with lead business analysts to develop detailed schedules with milestones and clear deliverables. A copy of the PMO methodology is included in Appendix D.

(e) Staffing

MDE ensures the success of the grant proposal activities by working collaboratively with strategic partners and assigning high quality of staff to develop and deliver the seven product lines. Senior MDE staff that has been instrumental in the development of the enterprise data model and SERVS strategic technology will provide continuity of leadership saving valuable time in meeting the delivery schedule. Development and deployment of product line features will be led by senior project managers working with a team of subject matter experts and developers.

Program Director: As Program Director, Cathy Wagner, Director of Information Technology for the Minnesota Department of Education, will provide oversight and advocacy for all grant activities across MDE and its partner agencies. With over 25 years of experience in education, Ms Wagner has a broad understanding of integrating education policy with information technology. She will work with division directors and their designated representatives through the MDE Data Management Steering Committee and related work groups assigned to each of the three System Improvements and related Outcomes ensuring that participation of program areas remains high and products stay aligned with business area needs. Ms. Wagner will work with the SLEDS Governing Body and technical teams to ensure clear lines of communication and integration across product lines and deliverables.

Project Director: As Project Director, John Paulson, Chief Information Officer for the Minnesota Department of Education, will provide technical expertise and oversight needed to deliver this ambitious, strategic grant proposal. He will design and articulate the foundational vision needed for linked data analysis across state education data sets. With over 25 years experience in managing complex IT projects for both the public and private sector, Mr. Paulson brings the technical depth and management expertise needed to successfully deliver a project of this magnitude. He will set policy for security and development requirements while working with Ms Wagner to ensure that Data Management Steering Committee and partner agencies comprehend his vision for shared technology outcomes.

Product Managers: Senior MDE Project Managers will be assigned to the all product lines. Craig Rhombs, PMP certified, will manage the SERVS Base Infrastructure (Product 1) and SERVS

Student (Product 2). Sally Gordon, with six years experience in working with teacher licensing and staff projects, brings critical domain knowledge as lead for the SERVS Staff (Product 3). Jonathan Lord, PMP certified with 15 years project management experience, will be the lead for SERVS Organization (Product 4). Jennifer Marier, PMP certified, with over six years experience in student assessment and accountability, will manage SLEDS (Product 5), additions to the Expanded Educator Portal (Product 6), and the P-20 RPM Analytic Portal (Product 7).

Development Team: Our senior data architects and java developers will be assigned across the teams. They include: 1) Dave Reeg who is responsible for developing the MDE enterprise data model; and 2) Kapil Gulati, Gene Kimball and Joe Schemenauer who have over 20 years combined MDE experience and bring valuable domain knowledge to this work. Additional J2ee, SQL developers with expertise in data warehouse development will also be assigned across teams.

Infrastructure Support: Gerhard Kessel, a senior network engineer with over 15 years of experience, will provide valuable network support. As team lead, Mr. Kessel will ensure that deployment and decommissions are correctly integrated with agency-wide applications. Other data base administrators will also assist with the integration efforts of this project, including Terry Sorg, the lead DBA with over eight years experience at MDE. Carol Freihammer, PMP certified, will lead the Quality Assurance team by providing clear direction to both hired contractors and MDE staff on MDE quality assurance routines that will be part of the project management process.

Interagency Coordinators: We have identified three interagency coordinators: 1) Jim Steinwand will coordinate OET's State Data Center activities, 2) Meredith Fergus will coordinate OHE activities, and 3) Steve Hine will coordinate DEED activities.

MDE Subject Matter Experts (SMEs): A team of subject matter experts will work across product lines 1- 4 and 6 to ensure that business requirements are correctly represented. These lead SMEs will coordinate work with focus group input: 1) Early Learning - Karen Carlson, 2) Effective Teacher Preparation - Karen Balmer, 3) Shared Stakes Accountability - Dirk Mattson, 4) Q Comp - Pat King, 5) M2D3 - Margaret Biggerstaff, 6) MIERS -Cammy Lehr, and 7) AP Access - Sally Wherry.

External Subject Matter Experts (ESMEs): A team of external subject matter experts will consult with product lines 5 and 7 to provide expertise in post secondary and workforce data. These ESMEs will coordinate work with focus group input: 1) OHE - Alexandra Djurovich, 2) DEED - Oriane Casale, and 3) OET - Craig Finseth.

New Staff: New staff will be hired to supplement each of the seven product line teams. Each project manager will have a dedicated business analyst fully funded from this grant to assist in managing the numerous focus group meetings needed for requirements to support each of Minnesota's Ten Policy Initiatives. Technical staff will be supplemented with contractors selected for expertise in MDE technical standards (e.g. J2ee and SQL Server) as needed to support MDE staff skill sets. Report writers with expertise in Information Builders business intelligence tools will be hired to implement dashboards. Quality Assurance staff will be hired to supplement the existing MDE team. Specific team assignments including associated resumes for current staff and position descriptions for new staff are included in Appendix B.

Project Narrative

Project Narrative - Appendix A, Optional Attachments

Attachment 1:
Title: **MN appendix A** Pages: **0** Uploaded File: **C:\Documents and Settings\crhombs\Desktop\Appendix A.pdf**

positively Minnesota
Department of Employment and Economic Development

October 22, 2009

Alice Seagren, Commissioner
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Re: Longitudinal Data Systems Charter Grant Application

Dear Commissioner Seagren,

I wholeheartedly endorse the Minnesota Department of Education's application for a Longitudinal Data Systems grant under the American Recovery and Reinvestment Act of 2009. As commissioner of the Minnesota Department of Employment and Economic Development (DEED), I am committing resources of this agency to support this important work. Additionally, as a member of Minnesota's P-20 Council and the Board of Trustees for the Minnesota State Colleges and Universities system (MnSCU), as well as a former legislator, I bring a unique understanding of the importance of a longitudinal data system that will assist us in better tracking student experiences and outcomes.

DEED is the state's principal economic and workforce development agency with a mission to support the economic prosperity of individuals, businesses and communities by improving opportunities for growth. The key to achieving this mission is ensuring there is enough right-skilled talent in place where and when business needs it. Access to talent has become a major criterion when business considers relocation or expansion. This convergence of workforce and economic development led to the creation of this agency in 2003.

DEED has already leveraged resources to encourage integration of education and workforce services by funding many grant opportunities. Many of our 40-plus WorkForce Centers are located on MnSCU campuses and/or offer Adult Basic Education on site. We also are working with the Joyce Foundation on a Shifting Gears initiative to better align training opportunities to help low-income individuals improve their education and labor force outcomes.

A longitudinal data system across Minnesota's education systems and DEED would allow us to perform much more robust analysis of labor market outcomes related to our education and training investments and provide better metrics of talent supply for Minnesota's employers.

Thank you for considering Minnesota's application and be assured that DEED will be involved every step of the way.

Sincerely,

Dan McElroy
Commissioner

1st National Bank Building ■ 332 Minnesota Street, Suite E200 ■ Saint Paul, MN 55101-1351 USA ■ www.deed.state.mn.us
Toll Free: 800-657-3858 ■ Phone: 651-259-7114 ■ Fax: 651-296-4772 ■ TTY/TDD: 651-296-3900

MINNESOTA BOARD OF TEACHING

November 30, 2009

To Whom It May Concern:

The Minnesota Board of Teaching (BOT) is pleased to partner with the Minnesota Department of Education (MDE) in the development of a longitudinal data system. The data system proposed by MDE will allow for substantial, critical advancements in the Board's policy-making and regulatory functions. Specifically, we are eager to launch a redesigned system for approving licensure programs offered at Minnesota colleges and universities. A working group consisting of higher education faculty members, BOT staff, and MDE staff has been working since the fall of 2008 to propose a revised framework for this critically important work of the Board. We have also had ongoing technical support from a regional education laboratory, REL Midwest. The redesigned system that has now been proposed will rely heavily on performance data of teacher candidates. Specifically, we will gather the following measures of candidate competence:

- Work sample: exhibits of teaching performance that provide direct evidence of a candidate's ability to design and implement standards-based instruction, assess student learning and reflect on the teaching and learning process
- Testing data: content-specific knowledge and general pedagogical knowledge
- First-year teacher survey
- Employer survey

In addition to these performance data points, we will also require the following supplemental data from each licensure program:

- Courses required to meet pedagogy and content standards
- Types and duration of clinical / field experiences required
- Length of student teaching requirement
- Types and qualifications of faculty members

We believe that the competency measures coupled with the supplemental data will allow for an unprecedented opportunity to meaningfully assess the readiness of teacher candidates. It will also provide an extraordinary basis for deeper and richer policy discussions as we continue to strengthen our teacher preparation practices and requirements in Minnesota.

A longitudinal data system is essential to achieve these goals and to maximize the value of the components of the redesigned program approval process. We are eager to implement this system and are working towards a Fall 2010 launch.

Finally, we are anxious to analyze the impact of teacher preparation on student achievement. In order to do so, we must have a data system that ties Board of Teaching data to the Department of Education's data. We believe that these analyses will have a profound impact on our current understanding of teacher preparation and will powerfully inform state-level policies and requirements as well as institutional practices.

We are deeply committed to this work and partnership with the Minnesota Department of Education and look forward to the development of a longitudinal data system that will have significant and positive impacts on Minnesota teacher candidates and Minnesota students alike.

Sincerely,

Karen Balmer

Karen Balmer
Executive Director

1500 HIGHWAY 36 WEST • ROSEVILLE, MINNESOTA 55113-4266
PHONE: (651) 582-8833 • FAX: (651) 582-8872 • board.teaching@state.mn.us • TTY: (651) 582-8201

1450 Energy Park Drive, Suite 350
St. Paul, MN 55108-5227

Tel: 651-642-0567
800-657-3866
Fax: 651-642-0675

info@ohe.state.mn.us
www.ohe.state.mn.us

Minnesota Office of Higher Education

October 23, 2009

Ms. Alice Seagren, Commissioner
Minnesota Department of Education
1500 Highway 36 West
Roseville, Minnesota 55113

Dear Commissioner Seagren:

The Minnesota Office of Higher Education strongly supports this application for funding for development of a Longitudinal Data System under the American Recovery and Reinvestment Act of 2009. Developing this important tool will inform educators and policy makers and will provide useful information needed to make data-driven decisions in homes, classrooms, schools and legislative chambers.

Minnesota's progress on this initiative includes a strong infrastructure and governance plan, a state law allowing the sharing of data across agencies and close working partnerships among the higher education systems, state educational and workforce agencies and members of Minnesota's P-20 Council.

The Minnesota Office of Higher Education has collected student-level enrollment data from public and private colleges and universities for decades, as a condition of their participation in state financial aid programs. The capacity to do meaningful analysis about students' educational experiences and the long-term outcomes of those experiences is critical to improving education. Our public and private institutional partners are equally interested in and supportive of this project for Minnesota.

We look forward to co-managing the Longitudinal Data System with our partners at the Minnesota Department of Education and believe we have a comprehensive and thoughtful plan for moving this project to full implementation.

Thank you for considering Minnesota's application and be assured that the Minnesota Office of Higher Education will be involved and supportive every step of the way.

Sincerely,

David Metzen
Director

DM:kb

Office of Enterprise Technology
State of Minnesota
Innovation. Change. Transformation.

October 23, 2009

Commissioner Alice Seagren
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Commissioner Seagren,

Over the last several months, the Office of Enterprise Technology (OET) has been in discussions with the multi-agency group that is developing the Longitudinal Data System. OET believes the new system has potential to be a tremendous opportunity for the state.

In order to continue the multi-agency partnership and further explore the opportunities and scope of the system, OET is submitting this letter of intent to partner and support hosting of the Longitudinal Data System. OET will also continue to work with the agency partners on overall governance of the project.

This project aligns with the architectural vision of the State of Minnesota, and is consistent with our business, security, and information technology architectures.

I'm excited about the potential the Longitudinal Data System presents, and look forward to our continued partnership.

Best regards,

Gopal Khanna
State Chief Information Officer
Minnesota Office of Enterprise Technology

State of Minnesota Office of Enterprise Technology
Centennial Office Building ▲ 658 Cedar Street ▲ St. Paul, Minnesota 55155 ▲ voice: 651-296-8888
www.oet.state.mn.us
An Equal Opportunity Employer

December 3, 2009

Re: Letter of Support for the Statewide Longitudinal Data Systems (LDS) Grant

On behalf of the P-20 Partnership, we wish to express our full support of your work on Minnesota Education Data Systems for 21st Century Learning. The Partnership works collaboratively to maximize achievements of all students, from preschool through elementary, secondary, and postsecondary education, while promoting the efficient use of financial and human resources. Four years ago, the P-20 Partnership created a workgroup to begin the creation of a data system that would allow both K-12 and higher education institutions to follow students through their entire educational career. It laid the foundation for the longitudinal data system that the Minnesota Department of Education now is wishing to complete.

This LDS project to unify the education data infrastructure and ensure interconnectivity across agencies for the purpose of planning and analysis will be of great benefit to Minnesota educators as we seek to identify the predictors of long-term student success and define "what makes a difference" in the academic experiences of students. This work is critical to providing information needed to develop data-driven decision-making structures that can be developed and implemented statewide.

A data system that provides a comprehensive foundation for documenting the performance of students, teachers, schools, and colleges, while improving the ability to address questions about Minnesota's investment in education will be used to inform critical policy decision. Data alone cannot improve performance, but it can support the careful consideration of issues and analysis leading to action.

We are pleased to offer our support for this project and applaud your efforts to secure this grant funding.

Sincerely,

Alice Seagren
Commissioner
MN Department of Education
Chair
MN P-20 Partnership

James H. McCormick
Chancellor
MN State Colleges and Universities
Vice-Chair
MN P-20 Partnership

Robert H. Bruininks
President
UMN – Twin Cities
Past-Chair
MN P-20 Partnership

October 14, 2009

Cathy Wagner, Director
Information and Technology Division
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Ms. Wagner:

Ready 4 K works with early care and education stakeholders throughout Minnesota to build consensus and develop public policies to ensure that every child in Minnesota will enter kindergarten fully ready to succeed. Ready 4 K supports the Minnesota Department of Education (MDE) proposal to expand the Minnesota Education Longitudinal Data System: a four-year project to unify the education data infrastructure and ensure interconnectivity across agencies for the purposes of planning and analysis. This data partnership with Early Learning, K-12 and the Minnesota Office of Higher Education is intended to effectively link and manage education data consistent with requirements set forth in the American Recovery and Reinvestment Act and America Competes Act for research, evaluation, planning and analysis.

A primary goal of the Minnesota Education Longitudinal Data System is to identify the predictors of long-term student success beginning with prekindergarten continuing through higher education– in other words, define "what makes a difference" in the academic experiences of students. Our organization is very interested in what makes a difference for young children and their families. Although education and the acquisition of skills is a lifelong process, starting early in life is crucial. Recent research has documented the high returns that early childhood programs can pay in terms of subsequent educational attainment. Improving Minnesota's educational data system will only enhance further research and policy development in early learning.

Therefore, we applaud MDE's efforts at securing this grant and offer our ongoing support to the project.

Sincerely,

Todd Otis
President, Ready 4 K

ANOKA-HENNEPIN SCHOOL DISTRICT

EDUCATIONAL SERVICE CENTER

11299 Hanson Blvd. NW, Coon Rapids, MN 55433 763-506-1000 TTY: 763-506-1180 Fax: 763-506-1003 www.anoka.k12.mn.us

October 9, 2009

Minnesota Department of Education
Attn: Commissioner Alice Seagren
1500 Highway 36 West
Roseville, MN 55113

Dear Commissioner Seagren:

This letter is written in support for the Statewide Longitudinal Data Systems Grant.

Anoka-Hennepin, the largest school district in the state of Minnesota, is very much in favor of the development and implementation of a comprehensive statewide foundation for documenting the performance of students, teachers and schools. Often when students enroll in our schools, it takes a significant amount of time to secure their student records. As a result, there can be a loss of instructional time and appropriate student placement.

As a district, we are very committed to data driven decision-making. We rely heavily on accurate and timely data to support our continuous improvement plans as we work to achieve our SMART goals that are focused on improving student achievement. Having longitudinal data will enhance and support this process.

In addition, the identification of benchmarks or predictors for long-term student success beginning with pre-K to higher education will help to insure that all of our students are higher institution ready when they leave Anoka-Hennepin. Not only will we have a big picture of what student success looks like, but we will also have a clearer understanding of how our students are stacking up against their peers as they transition to post secondary settings including college and the workforce.

Being able to link student achievement to teachers, principals and their schools will be an important tool to as we look to measure the impact of our various intervention programs and staff development.

We enthusiastically support the Statewide Longitudinal Data Systems Grant for the State of Minnesota.

Sincerely,

Michelle A Langenfeld

Dr. Michelle Langenfeld
Associate Superintendent Pre K – 16

Cc: Superintendent Dennis Carlson
Anoka-Hennepin ISD #11

technology so you can teach

December 1, 2009

Commissioner Alice Seagren
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Re: Letter of Support for the Statewide Longitudinal Data Systems Grant

Dear Commissioner Seagren:

TIES wishes to express its support of your work on the expanded Minnesota Education Longitudinal Data System. This system will be of great benefit to our districts as they seek to identify the predictors of long-term student success and define "what makes a difference" in the academic experiences of students.

TIES has implemented a similar system in over 50 Minnesota school districts which represent a third of the students in the state. We can attest to the benefits attributable to the work we have done which leveraged a data warehouse and business intelligence toolset to provide actionable data to district and school leaders. Our districts enjoy the ability to use a data dashboard to track key performance indicators in financial and human resources data, in addition to critical data on student academic performance. Being able to easily access accurate data on students' attendance, behavior, grades, and performance on local and statewide assessments has helped our districts to better understand how to use data to manage the instructional environment and drive student success. Having simultaneous access to finance and human resources data has helped develop operations management skills, and recognize the connection between operational performance and student success. Our comprehensive staff development program, known as Data Academies, has trained over 400 district and building leaders over the past three years. Our ability to train not just on "how to click" to get the data, but on what to do with the data has been extraordinarily well-received.

Given our experience in this arena, we certainly feel that the goals of the LDS project are admirable, and that TIES would enjoy and provide value in a partnership with MDE towards this effort. In relation to interconnectivity, TIES would be interested in working with MDE to pilot the use of the Schools Interoperability Framework (SIF) to streamline the processes associated with data transfer.

The final product, a linked K-12 student information with data on students who graduate from a Minnesota public high schools and attend a Minnesota post-secondary institution, will provide the state with a valuable infrastructure that will benefit education in the 21st century.

Sincerely,

Betty Schweizer

Elizabeth A. Schweizer
Executive Director

EAS:kaj

1667 Snelling Ave. N. • St. Paul, MN 55108-2131 • Tel 651-999-6000 • Fax 651-999-6099

ENROLLMENT DATA SHARING AGREEMENT
Between Minnesota State Colleges and Universities and the Minnesota Office of Higher Education

The Minnesota State Colleges and Universities system and member colleges and universities (MnSCU) are educational agencies or institutions subject to the Family Educational Rights and Privacy Act, 20 U.S.C. 1232g, and 34 C.F.R. 99 (FERPA) and the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13 (MGDPA). This Agreement sets forth the conditions and provisions of FERPA and the MGDPA specifically applicable to MnSCU's disclosure of personally identifiable education records (education records) to the Minnesota Office of Higher Education (OHE) in furtherance of its statutory responsibilities stated at Minn. Stat. § 136A.01, subd. 2 and for other appropriate purposes by or on behalf of MnSCU including, but not limited to, the Minnesota Education P-20 Longitudinal Data System Project (LDS Project).

The parties acknowledge and agree that all education records provided by MnSCU to OHE pursuant to this Agreement, and all data created, collected, received, stored, used, maintained, or disseminated in accordance with this Agreement, are subject to applicable privacy laws, including FERPA and the MGDPA.

Pursuant to this Agreement, MnSCU shall provide education records to OHE described in the attached Appendix A and such additional education records as may be added by the LDS Governing Board to OHE as may be necessary for the following purposes: 1) in connection with financial aid, as permitted by 20 U.S.C. § l232g(b)(I)(D) and 34 C.F.R. § 99.31(a)(4); 2) subject to 20 U.S.C. § 1232g (b)(3) and 34 C.F.R. § 99.35 to an educational authority to audit or evaluate Federal or State supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs; and 3) to an organization to conduct studies for or on MnSCU's behalf, as permitted by 20 U.S.C. § 1232g(b)(I)(F) and 34 C.F.R. § 99.31(a)(6). OHE may use the education records only for the purposes for which MnSCU provided the records or as may be subsequently authorized.

MnSCU and the OHE specifically understand and agree that education records provided by MnSCU to OHE under this Agreement are subject to the following terms and conditions

1. Any use or disclosure of MnSCU's education records by OHE, its employees, agents or contractors is subject to and shall be consistent with applicable provisions of FERPA and the MGDPA including, but not limited to, FERPA regulations at 34 C.F.R. § 99.33 and 34 C.F.R. § 99.32 regarding recordkeeping and re-disclosure of education records.

2. For education records provided for the LDS Project pursuant to 34 C.F.R. § 99.31(a)(6)(i), the parties agree that the LDS Project will provide educators and policymakers with more comprehensive data and analysis from which to make informed decisions leading to educational improvement at all levels, that it is of indefinite duration, and that the information to be disclosed is described in this agreement; and OHE shall conduct the study in a manner that

does not permit personal identification of parents or students by individuals other than representatives of OHE, and the information must be destroyed when no longer needed for the purposes of the study, as required by 34 C.F.R. 99.31(a)(6)(ii).

3. OHE shall develop, implement, maintain and use appropriate administrative, technical and physical security measures to preserve the confidentiality, integrity and availability of all electronically maintained or transmitted education records received from or on behalf of MnSCU. These measures will be extended by contract to all subcontractors used by OHE.

4. MnSCU shall be a member of the LDS Governing Board that will approve in advance data security protocols, data transfer procedures and research and evaluation proposals involving any use, disclosure, re-disclosure, retention and destruction of MnSCU education records for this project.

5. Where appropriate, de-identification of MnSCU's education records for the LDS Project shall be consistent with 34 C.F.R. § 99.31 (b).

6. If the U.S. Department of Education determines that OHE has violated an applicable provision of FERPA regarding re-disclosure or requirement that the education records provided be destroyed when no longer needed for the purposes for which the records were disclosed, MnSCU may not permit OHE access to personally identifiable information from its education records for at least five years.

7. This Agreement may be amended in writing at any time by mutual consent of the parties. Either party may terminate this Agreement for any reason upon 90 days' written notice. Absent termination, this Agreement shall continue in effect for a period of five years.

12/1/09
Date

David Metzen, Director
Minnesota Office of Higher Education

12/1/09
Date

James H. McCormick
Chancellor, Minnesota State Colleges and Universities

ENROLLMENT DATA SHARING AGREEMENT
Between University of Minnesota and the Minnesota Office of Higher Education

The University of Minnesota (U of M) is an educational agency or institution subject to the Family Educational Rights and Privacy Act, 20 U.S.C. 1232g, and 34 C.F.R. 99 (FERPA) and the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13 (MGDPA). This Agreement sets forth the conditions and provisions of FERPA and the MGDPA specifically applicable to U of M's disclosure of personally identifiable education records (education records) to the Minnesota Office of Higher Education (OHE) in furtherance of its statutory responsibilities stated at Minn. Stat. § 136A.01, subd. 2 and for other appropriate purposes by or on behalf of U of M including, but not limited to, the Minnesota Education P-20 Longitudinal Data System Project (LDS Project).

The parties acknowledge and agree that all education records provided by U of M to OHE pursuant to this Agreement, and all data created, collected, received, stored, used, maintained, or disseminated in accordance with this Agreement, are subject to applicable privacy laws, including FERPA and the MGDPA.

Pursuant to this Agreement, U of M shall provide education records to OHE described in the attached Appendix A and such additional education records as may be added by the LDS Governing Board to OHE as may be necessary for the following purposes: 1) in connection with financial aid, as permitted by 20 U.S.C. § l232g(b)(I)(D) and 34 C.F.R. § 99.31(a)(4); 2) subject to 20 U.S.C. § 1232g (b)(3) and 34 C.F.R. § 99.35 to an educational authority to audit or evaluate Federal or State supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs; and 3) to an organization to conduct studies for or on U of M's behalf, as permitted by 20 U.S.C. § 1232g(b)(I)(F) and 34 C.F.R. § 99.31(a)(6). OHE may use the education records only for the purposes for which U of M provided the records or as may be subsequently authorized.

U of M and the OHE specifically understand and agree that education records provided by U of M to OHE under this Agreement are subject to the following terms and conditions.

1. Any use or disclosure of U of M's education records by OHE, its employees, agents or contractors is subject to and shall be consistent with applicable provisions of FERPA and the MGDPA including, but not limited to, FERPA regulations at 34 C.F.R. § 99.33 and 34 C.F.R. § 99.32 regarding recordkeeping and re-disclosure of education records.

2. For education records provided for the LDS Project pursuant to 34 C.F.R. § 99.31(a)(6)(i), the parties agree that the LDS Project will provide educators and policymakers with more comprehensive data and analysis from which to make informed decisions leading to educational improvement at all levels, that it is of indefinite duration, and that the information to be disclosed is described in this agreement; and OHE shall conduct the study in a manner that does not permit personal identification of parents or students by individuals other

than representatives of OHE, and the information must be destroyed when no longer needed for the purposes of the study, as required by 34 C.F.R. 99.31(a)(6)(ii).

3. OHE shall develop, implement, maintain and use appropriate administrative, technical and physical security measures to preserve the confidentiality, integrity and availability of all electronically maintained or transmitted education records received from or on behalf of U of M. These measures will be extended by contract to all subcontractors used by OHE.

4. U of M shall be a member of the LDS Governing Board that will approve in advance data security protocols, data transfer procedures and research and evaluation proposals involving any use, disclosure, re-disclosure, retention and destruction of U of M education records for this project.

5. Where appropriate, de-identification of U of M's education records for the LDS Project shall be consistent with 34 C.F.R. § 99.31 (b).

6. If the U.S. Department of Education determines that OHE has violated an applicable provision of FERPA regarding re-disclosure or requirement that the education records provided be destroyed when no longer needed for the purposes for which the records were disclosed, U of M may not permit OHE access to personally identifiable information from its education records for at least five years.

7. This Agreement may be amended in writing at any time by mutual consent of the parties. Either party may terminate this Agreement for any reason upon 90 days' written notice. Absent termination, this Agreement shall continue in effect for a period of five years.

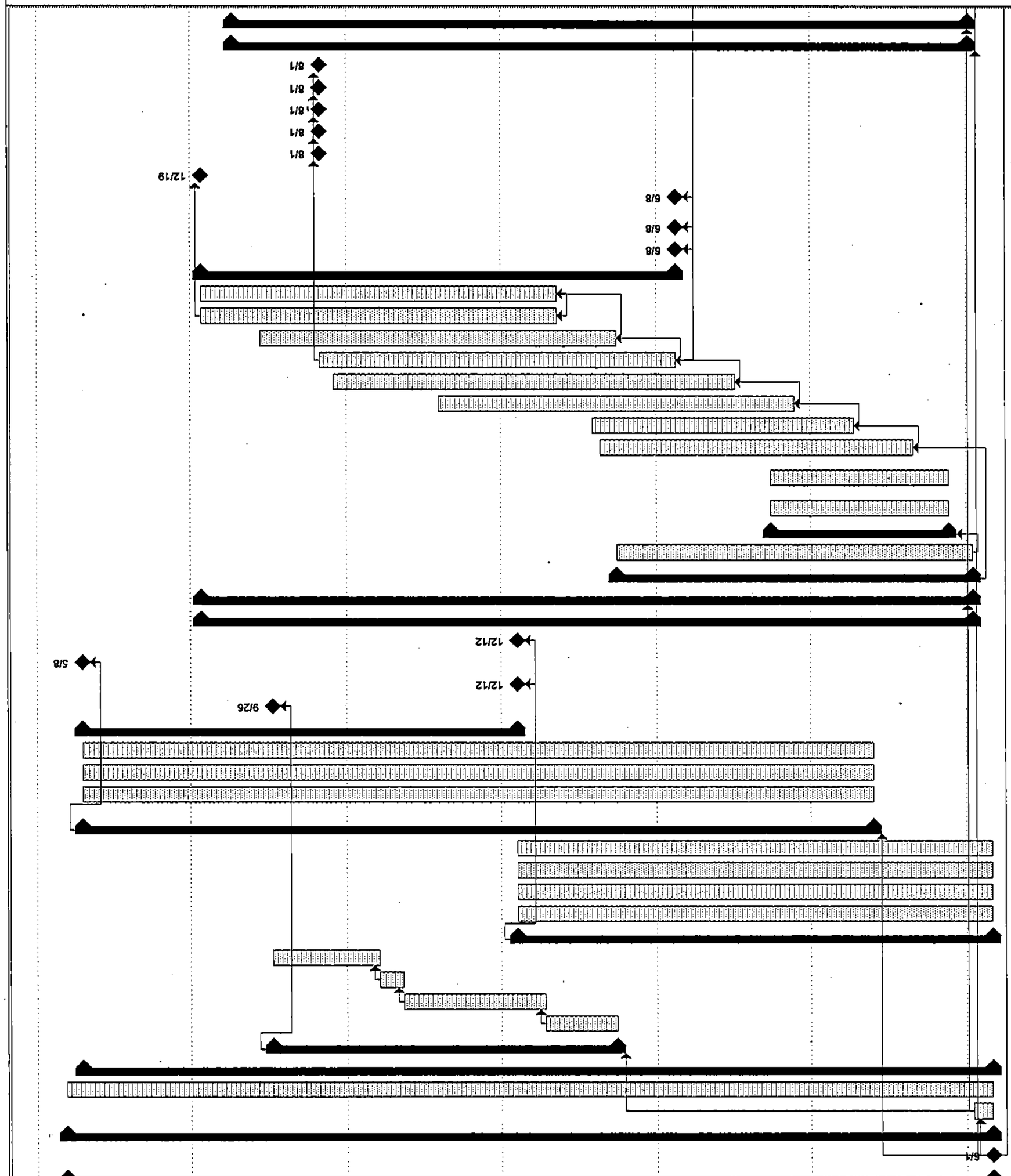
12/01/09
Date

David Metzen, Director
Minnesota Office of Higher Education

12/1/09
Date

Robert H. Bruininks
President
University of Minnesota

ID	WBS	Task Name	Duration	Start	Finish
1	1	MN Ed Systems for 21st Cent Learning	780 days?	Tue 6/1/10	Mon 5/27/13
2	1.1	project start date	0 days	Tue 6/1/10	Tue 6/1/10
3	1.2	PM activities	780 days	Tue 6/1/10	Mon 5/27/13
4	1.2.1	kickoff activities	16.67 days	Tue 6/1/10	Wed 6/23/10
5	1.2.2	recurring reporting & coord work (admin)	780 days	Tue 6/1/10	Mon 5/27/13
6	1.3	1 SERVS base infrastructure	766.67 days?	Tue 6/1/10	Wed 5/8/13
7	1.3.1	SIF facilities (pilot)	290 days	Wed 8/17/11	Wed 9/26/12
8	1.3.1.1	develop rfp	60 days	Wed 8/17/11	Wed 11/9/11
9	1.3.1.2	procure	120 days	Wed 11/9/11	Wed 4/25/12
10	1.3.1.3	install & configure	20 days	Wed 4/25/12	Wed 5/23/12
11	1.3.1.4	train & rollout	90 days	Wed 5/23/12	Wed 9/26/12
12	1.3.2	EDM facilities changes	400 days	Tue 6/1/10	Mon 12/12/11
13	1.3.2.1	requirements development	400 days	Tue 6/1/10	Mon 12/12/11
14	1.3.2.2	design	400 days	Tue 6/1/10	Mon 12/12/11
15	1.3.2.3	develop	400 days	Tue 6/1/10	Mon 12/12/11
16	1.3.2.4	install & migrate	400 days	Tue 6/1/10	Mon 12/12/11
17	1.3.3	COTS network, server, and software support	666.67 days?	Tue 10/19/10	Wed 5/8/13
18	1.3.3.1	hardware environment	666.67 days?	Tue 10/19/10	Wed 5/8/13
19	1.3.3.2	software environment	666.67 days	Tue 10/19/10	Wed 5/8/13
20	1.3.3.3	network environment	666.67 days	Tue 10/19/10	Wed 5/8/13
21	1.3.4	features	366.67 days	Mon 12/12/11	Wed 5/8/13
22	1.3.4.1	1.1 SIF facilities (student location)	0 days	Wed 9/26/12	Wed 9/26/12
23	1.3.4.2	1.2 Enterprise Data Model (completion)	0 days	Mon 12/12/11	Mon 12/12/11
24	1.3.4.3	1.3 commercial off the shelf products	0 days	Wed 5/8/13	Wed 5/8/13
25	1.3.4.4	1.4 common course catalog (in EDM)	0 days	Mon 12/12/11	Mon 12/12/11
26	1.4	2 SERVS Student	650 days	Wed 6/23/10	Wed 12/19/12
27	1.4.1	product development	650 days	Wed 6/23/10	Wed 12/19/12
28	1.4.1.1	requirements	300 days	Wed 6/23/10	Wed 8/17/11
29	1.4.1.1.1	requirements (clarifying)	300 days	Wed 6/23/10	Wed 8/17/11
30	1.4.1.1.2	focus group efforts	150 days	Wed 7/21/10	Wed 2/16/11
31	1.4.1.1.2.1	meetings of focus groups (internal) (e.g., enrollment, discipline, assess., sped)	150 days	Wed 7/21/10	Wed 2/16/11
32	1.4.1.1.2.2	meetings of focus groups (external) (e.g., enrollment, dirs, assess., sped)	150 days	Wed 7/21/10	Wed 2/16/11
33	1.4.1.2	functional definition	263.16 days	Wed 9/1/10	Mon 9/5/11
34	1.4.1.3	design/code	220 days	Wed 11/10/10	Wed 9/14/11
35	1.4.1.4	integration testing	300 days	Wed 1/19/11	Wed 3/14/12
36	1.4.1.5	quality assurance	337.5 days	Wed 3/30/11	Mon 7/16/12
37	1.4.1.6	deploy & decommission	300 days	Wed 6/8/11	Wed 8/1/12
38	1.4.1.7	user documentation	300 days	Wed 8/17/11	Wed 10/10/12
39	1.4.1.8	training of data managers	300 days	Wed 10/26/11	Wed 12/19/12
40	1.4.1.9	training of data administrators	300 days	Wed 10/26/11	Wed 12/19/12
41	1.4.2	features	400 days	Wed 6/8/11	Wed 12/19/12
42	1.4.2.1	2.1 e-transcript collection & reporting	0 days	Wed 6/8/11	Wed 6/8/11
43	1.4.2.2	2.2 common course catalog linking teacher/student	0 days	Wed 6/8/11	Wed 6/8/11
44	1.4.2.3	2.3 student roster	0 days	Wed 6/8/11	Wed 6/8/11
45	1.4.2.4	2.4 data manager training materials	0 days	Wed 12/19/12	Wed 12/19/12
46	1.4.2.5	2.5 data record linking system	0 days	Wed 8/1/12	Wed 8/1/12
47	1.4.2.6	2.6 early childhood data collection	0 days	Wed 8/1/12	Wed 8/1/12
48	1.4.2.7	2.7 college & career readiness collection	0 days	Wed 8/1/12	Wed 8/1/12
49	1.4.2.8	2.8 EDFacts gap elimination	0 days	Wed 8/1/12	Wed 8/1/12
50	1.4.2.9	2.9 ABE data collection	0 days	Wed 8/1/12	Wed 8/1/12
51	1.5	3 SERVS Staff	620 days	Tue 6/29/10	Mon 11/12/12
52	1.5.1	product development	620 days	Tue 6/29/10	Mon 11/12/12



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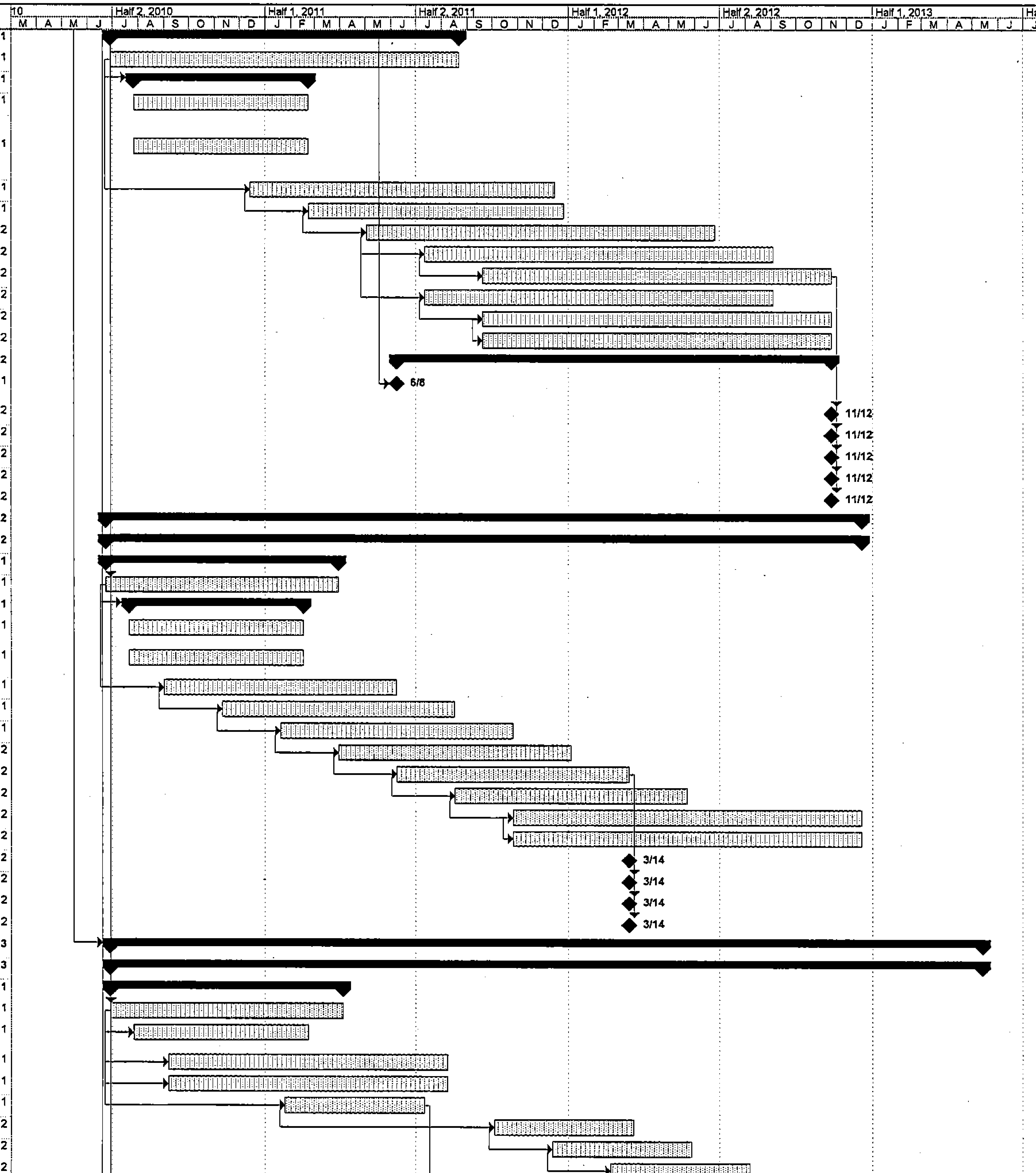
ID	WBS	Task Name	Duration	Start	Finish
53	1.5.1.1	**requirments**	300 days	Tue 6/29/10	Mon 8/22/11
54	1.5.1.1.1	requirements (clarifying)	300 days	Tue 6/29/10	Mon 8/22/11
55	1.5.1.1.2	**focus group efforts**	150 days	Tue 7/27/10	Mon 2/21/11
56	1.5.1.1.2.1	meetings of focus groups (internal) (e.g., staff submission, highly qual, license, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
57	1.5.1.1.2.2	meetings of focus groups (external) (e.g., staff submission, highly qual, license, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
58	1.5.1.2	functional definition	263.16 days	Tue 12/14/10	Fri 12/16/11
59	1.5.1.3	design/code	220 days	Tue 2/22/11	Mon 12/26/11
60	1.5.1.4	integration testing	300 days	Tue 5/3/11	Mon 6/25/12
61	1.5.1.5	quality assurance	300 days	Tue 7/12/11	Mon 9/3/12
62	1.5.1.6	deploy & decommission	300 days	Tue 9/20/11	Mon 11/12/12
63	1.5.1.7	user documentation	300 days	Tue 7/12/11	Mon 9/3/12
64	1.5.1.8	training of data managers	300 days	Tue 9/20/11	Mon 11/12/12
65	1.5.1.9	training of data administrators	300 days	Tue 9/20/11	Mon 11/12/12
66	1.5.2	**features**	373.33 days	Wed 6/8/11	Mon 11/12/12
67	1.5.2.1	3.1 common course catalog linking teachers/students	0 days	Wed 6/8/11	Wed 6/8/11
68	1.5.2.2	3.2 teacher certification collection	0 days	Mon 11/12/12	Mon 11/12/12
69	1.5.2.3	3.3 teacher prep institution collection	0 days	Mon 11/12/12	Mon 11/12/12
70	1.5.2.4	3.4 data record linking system	0 days	Mon 11/12/12	Mon 11/12/12
71	1.5.2.5	3.5 staff roster	0 days	Mon 11/12/12	Mon 11/12/12
72	1.5.2.6	3.6 data manager training materials	0 days	Mon 11/12/12	Mon 11/12/12
73	1.6	**4 SERVS ORG**	650 days	Wed 6/23/10	Wed 12/19/12
74	1.6.1	**product development**	650 days	Wed 6/23/10	Wed 12/19/12
75	1.6.1.1	**requirments**	200 days	Wed 6/23/10	Wed 3/30/11
76	1.6.1.1.1	requirements (clarifying)	200 days	Wed 6/23/10	Wed 3/30/11
77	1.6.1.1.2	**focus group efforts**	150 days	Wed 7/21/10	Wed 2/16/11
78	1.6.1.1.2.1	meetings of focus groups (internal) (e.g., oversight, communications, finance, etc.)	150 days	Wed 7/21/10	Wed 2/16/11
79	1.6.1.1.2.2	meetings of focus groups (external) (e.g., oversight, communications, finance, etc)	150 days	Wed 7/21/10	Wed 2/16/11
80	1.6.1.2	functional definition	200 days	Wed 9/1/10	Wed 6/8/11
81	1.6.1.3	design/code	200 days	Wed 11/10/10	Wed 8/17/11
82	1.6.1.4	integration testing	200 days	Wed 1/19/11	Wed 10/26/11
83	1.6.1.5	quality assurance	200 days	Wed 3/30/11	Wed 1/4/12
84	1.6.1.6	deploy & decommission	200 days	Wed 6/8/11	Wed 3/14/12
85	1.6.1.7	user documentation	200 days	Wed 8/17/11	Wed 5/23/12
86	1.6.1.8	training of data managers	300 days	Wed 10/26/11	Wed 12/19/12
87	1.6.1.9	training of data administrators	300 days	Wed 10/26/11	Wed 12/19/12
88	1.6.2	**features**	0 days	Wed 3/14/12	Wed 3/14/12
89	1.6.2.1	4.1 common course catalog	0 days	Wed 3/14/12	Wed 3/14/12
90	1.6.2.2	4.2 standardization of directory info	0 days	Wed 3/14/12	Wed 3/14/12
91	1.6.2.3	4.3 data manager training	0 days	Wed 3/14/12	Wed 3/14/12
92	1.7	**5 Statewide Warehouse (SLEDS)**	750 days	Tue 6/29/10	Mon 5/13/13
93	1.7.1	**product development**	750 days	Tue 6/29/10	Mon 5/13/13
94	1.7.1.1	**requirments**	200 days	Tue 6/29/10	Mon 4/4/11
95	1.7.1.1.1	requirements (clarifying)	200 days	Tue 6/29/10	Mon 4/4/11
96	1.7.1.1.2	focus group efforts (external) (e.g., governance, research, security, PK-20, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
97	1.7.1.2	data sharing agreements	240 days	Tue 9/7/10	Mon 8/8/11
98	1.7.1.3	service level agreements for third parties	240 days	Tue 9/7/10	Mon 8/8/11
99	1.7.1.4	data source analysis	120 days	Tue 1/25/11	Mon 7/11/11
100	1.7.1.5	data exchange process development	120 days	Tue 10/4/11	Mon 3/19/12
101	1.7.1.6	etl design/code	120 days	Tue 12/13/11	Mon 5/28/12
102	1.7.1.7	integration testing	120 days	Tue 2/21/12	Mon 8/6/12



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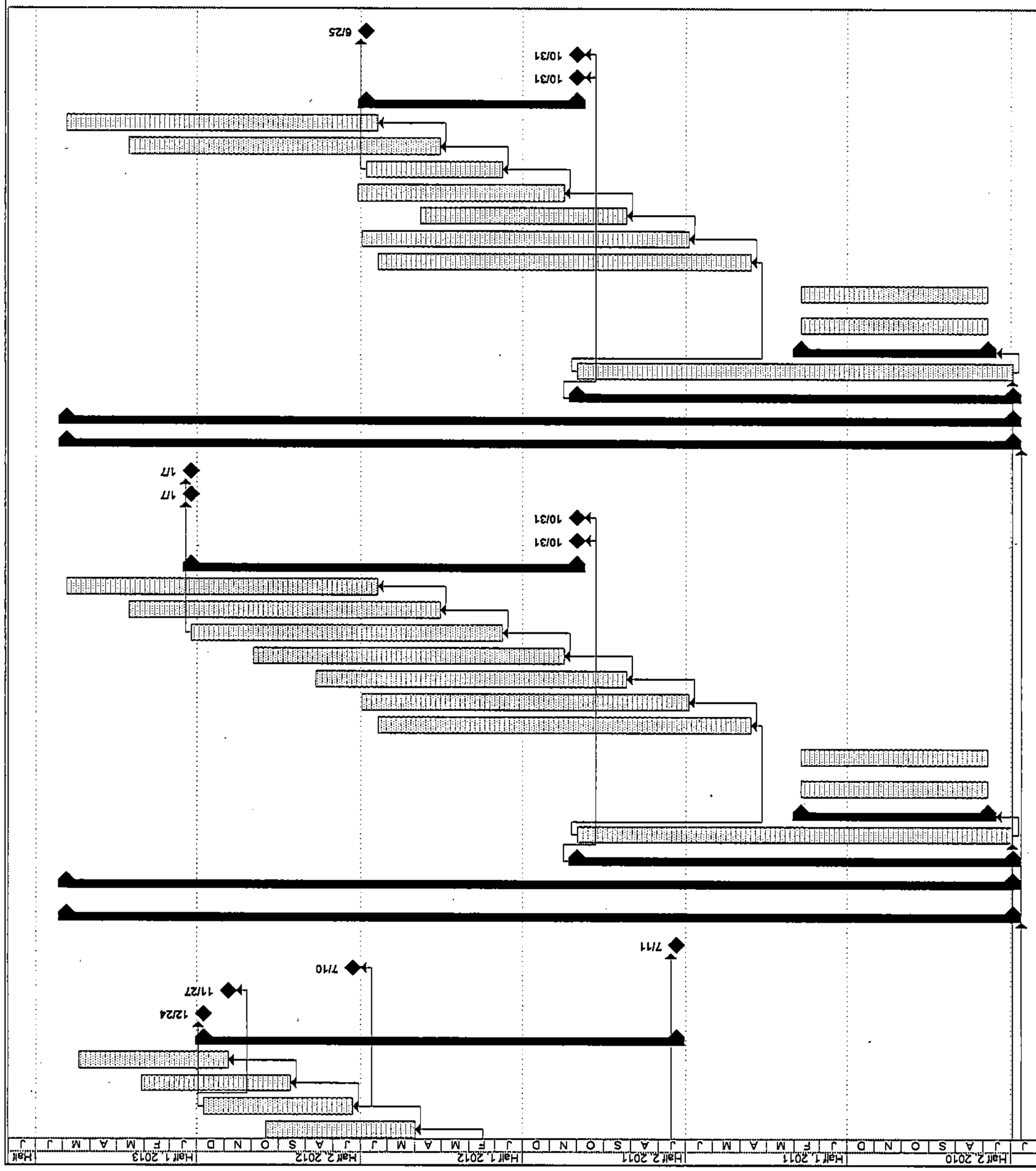
ID	WBS	Task Name	Duration	Start	Finish
103	1.7.1.8	quality assurance	120 days	Tue 5/1/12	Mon 10/15/12
104	1.7.1.9	deploy & host	120 days	Tue 7/10/12	Mon 12/24/12
105	1.7.1.10	user documentation	120 days	Tue 9/18/12	Mon 3/4/13
106	1.7.1.11	user training	120 days	Tue 11/27/12	Mon 5/13/13
107	1.7.2	features	380 days	Mon 7/1/11	Mon 12/24/12
108	1.7.2.1	5.1 data warehouse complete	0 days	Mon 12/24/12	Mon 12/24/12
109	1.7.2.2	5.2 data exchange facilities complete	0 days	Tue 11/27/12	Tue 11/27/12
110	1.7.2.3	5.3 common terms defined	0 days	Tue 7/10/12	Tue 7/10/12
111	1.7.2.4	5.4 inter-agency cooperation agreements complete	0 days	Mon 7/11/11	Mon 7/11/11
112	1.8	6 Student Enhanced MDE Analytics - Educator Portal	760 days	Tue 6/29/10	Mon 5/27/13
113	1.8.1	product development	760 days	Tue 6/29/10	Mon 5/27/13
114	1.8.1.1	requirements	350 days	Tue 6/29/10	Mon 10/31/11
115	1.8.1.1.1	requirements (clarifying)	350 days	Tue 6/29/10	Mon 10/31/11
116	1.8.1.1.2	focus group efforts	150 days	Tue 7/27/10	Mon 2/21/11
117	1.8.1.1.2.1	meetings of focus groups (internal) (e.g., early child, license, assess, q-comp, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
118	1.8.1.1.2.2	meetings of focus groups (external) (e.g., early child, license, assess, q-comp, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
119	1.8.1.2	functional definition	300 days	Tue 4/19/11	Mon 6/11/12
120	1.8.1.3	design/code	264 days	Tue 6/28/11	Fri 6/29/12
121	1.8.1.4	integration testing	250 days	Tue 9/6/11	Mon 8/20/12
122	1.8.1.5	quality assurance	250 days	Tue 11/15/11	Mon 10/29/12
123	1.8.1.6	deploy	250 days	Tue 1/24/12	Mon 1/7/13
124	1.8.1.7	user documentation	250 days	Tue 4/3/12	Mon 3/18/13
125	1.8.1.8	user training	250 days	Tue 6/12/12	Mon 5/27/13
126	1.8.2	features	310 days	Mon 10/31/11	Mon 1/7/13
127	1.8.2.1	6.1 new data elements defined	0 days	Mon 10/31/11	Mon 10/31/11
128	1.8.2.2	6.2 tech requirements identified	0 days	Mon 10/31/11	Mon 10/31/11
129	1.8.2.3	6.3 dashboards complete	0 days	Mon 1/7/13	Mon 1/7/13
130	1.8.2.4	6.4 training materials complete (RTTT data coach)	0 days	Mon 1/7/13	Mon 1/7/13
131	1.9	7 Student Enhanced MDE Analytics - P20 RPM	760 days	Tue 6/29/10	Mon 5/27/13
132	1.9.1	product development	760 days	Tue 6/29/10	Mon 5/27/13
133	1.9.1.1	requirements	350 days	Tue 6/29/10	Mon 10/31/11
134	1.9.1.1.1	requirements (clarifying)	350 days	Tue 6/29/10	Mon 10/31/11
135	1.9.1.1.2	focus group efforts	150 days	Tue 7/27/10	Mon 2/21/11
136	1.9.1.1.2.1	meetings of focus groups (internal) (e.g., GIS, assess, enrollment, staff, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
137	1.9.1.1.2.2	meetings of focus groups (external) (e.g., GIS, assess, enrollment, staff, etc.)	150 days	Tue 7/27/10	Mon 2/21/11
138	1.9.1.2	functional definition	300 days	Tue 4/19/11	Mon 6/11/12
139	1.9.1.3	design/code	264 days	Tue 6/28/11	Fri 6/29/12
140	1.9.1.4	integration testing	166.67 days	Tue 9/6/11	Wed 4/25/12
141	1.9.1.5	quality assurance	166.67 days	Tue 11/15/11	Wed 7/4/12
142	1.9.1.6	deploy	109.09 days	Tue 1/24/12	Mon 6/25/12
143	1.9.1.7	user documentation	250 days	Tue 4/3/12	Mon 3/18/13
144	1.9.1.8	user training	250 days	Tue 6/12/12	Mon 5/27/13
145	1.9.2	features	189.09 days	Mon 10/3/11	Mon 6/25/12
146	1.9.2.1	7.1 new data elements defined	0 days	Mon 10/31/11	Mon 10/31/11
147	1.9.2.2	7.2 dashboards for Initiatives in 7.1 complete	0 days	Mon 10/31/11	Mon 10/31/11
148	1.9.2.3	7.3 training materials complete (RTTT data coach)	0 days	Mon 6/25/12	Mon 6/25/12



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Project Narrative

Project Narrative - Appendix B Resumes of Key Personnel

Attachment 1:
Title: **Minnesota Resumes** Pages: **0** Uploaded File: **C:\Documents and Settings\crhombs\Desktop\Appendix Resumes.pdf**

LDS Project Manager

Catherine Wagner

PROFESSIONAL EXPERIENCE

Minnesota Department of Children, Families & Learning

Information Technologies Education Director

August 2003 – Present

- Supervise the coordination and implementation of data collection and evaluation activities for MDE student and staff data
- Supervise the streamlining of data acquisition activities for effective use of resources
- Supervise the development of data collection standards to meet new state and federal requirements and special data collection projects
- Supervise the mainframe and micro-web applications development projects
- Supervise an IT staff of 40 on core technology teams including mainframe developers, micro-web developers, data applications developers, network/help desk specialists and the project management team
- Problem solve daily activities in the Division of Information Technologies
- Serve as agency liaison to national and state accountability and data organizations
- Train state superintendents and principals on data requirements and data collections required for new federal AYP regulations
- Present legislative testimony in the areas of data collection activities related to NCLB AYP and the State report card
- Coordinate the commissioner's working group on current data collection activities
- Develop processes to prioritize agency data requests based on availability of resources
- Clarify reporting directives from United States Department of Education, the National Center for Educational Statistics and the Office of Civil rights

Accountability Specialist

August 2000- August 2003

- Planned and directed research and analysis for the design and development of the State NCLB accountability system
- Authored major Federal reports and winning grant proposals
- Coordinated the design and development of data acquisition and management procedures for the implementation of NCLB accountability requirements
- Provided leadership and motivation for staff in developing critical collaboration between assessment and Title I to establish statewide accountability system
- Planned and directed research procedures for evaluating school performance
- Used in-depth knowledge of organizational development to design continuous improvement processes for urban schools
- Researched State and Federal statutes to develop school improvement policies for low performing schools
- Researched State education statutes and Federal Title I statutes to design and implement data collection activities for the State and federal NCLB report cards
- Developed components for data analysis and evaluation of student work
- Provided staff development for implementation of school improvement activities in low performing schools in major urban school districts in the state

- Collaborated with the University of Minnesota's Office of Educational Accountability to establish indicators for statewide accountability and continuous improvement
- Designed the State school improvement web site CLASS
- Managed contractors in data management and web development

Statewide Testing Coordinator
1996-2000

- Designed, established and coordinated statewide testing programs in reading, mathematics and writing for the Minnesota Comprehensive Assessments and the Basic Standards Tests
- Designed, established and coordinated standards-based statewide testing program for English language learners in reading, and writing; Minnesota Test of Emerging Academic English
- Managed a range of test administrators, item writers, and testing personnel
- Managed 10 million dollar annual budget of testing contracts with multiple testing vendors
- Established appropriate accommodation and inclusion guidelines for special populations including special education students and student with limited English language proficiency
- Presented legislative testimony in the areas of statewide testing including Title I assessments and basic skills tests
- Participated in media events (press, radio, television) to provide information on statewide testing
- Presented at major national and state professional conferences on statewide testing
- Provided leadership to create staff development materials related to statewide testing programs
- Coordinated Title I and statewide assessment activities
- Provided leadership and conducted staff development activities for the implementation of the statewide assessment programs

PROFESSIONAL EXPERIENCE continued
Minnesota Department of Children, Families & Learning
Graduation Standards Coordinator
1994-1996

- Coordinated teams of teachers and curriculum experts K-12 and post secondary to develop K-12 content standards in 10 curricular areas
- Assisted with the implementation of the state content standards and the development of curricular and instructional supports
- Researched international, national and state curriculum standards

Blaine High School, Blaine Minnesota
Northdale Junior High, Coon Rapids Minnesota
French Teacher
1976-1994

- Taught French grades seven through twelve
- Created instruction and assessment activities focused on student centered and applied learning
- Designed standards-based grading methods
- Provided training on authentic assessment techniques in second languages
- Chaired four period day committee

- Designed a peer coaching system used in conjunction with the Teacher Performance Review System
- Provided input on building level budget decision as chair of site-based finance committee
- Served as department chair
- Chaired North Central Evaluation teams
- Planned and coordinated district-wide in-service sessions

Education

Completed course work at the University of St. Thomas, St. Paul MN
Education Administration Specialist, 1998

Master of Education, University of Minnesota, Minneapolis, MN
Educational Leadership, 1994

Bachelor of Science, University of Minnesota, Minneapolis, MN
Education Major, 1976

Study Abroad at the Universite de Paris, Sorbonne, 1975

Professional Memberships

American Educational Research Association
Association for Supervision of Curriculum and Development
CCSSO Accountability Systems and Reporting Consortium (ASR SCASS)
CCSSO Comprehensive Assessment Systems for IASA Title I (Title I SCASS)
Minnesota Assessment Group
Minnesota Teachers of English to Speakers of Other Languages, MinneTESOL
National Council on Measurement in Education

LDS Project Director

John Paulson

PROFESSIONAL EXPERIENCE

Minnesota Department of Education, St. Paul, MN, Manager, IT Development 6/03 - 10/04
Responsible for the Minnesota Department of Education Development and support organization, including over 100 data collection, data publication and reporting, and aid and funding payment processing applications.

BRT, Inc., St. Paul, MN, Founder, President & CEO 6/03 - 10/04
Founded Beam Reach Technologies (BRT) with a mission statement of "Facilitating Criminal Justice Information Sharing while protecting the rights and privacy of citizens.

Ensodex, Inc., St. Paul, MN, Founder, President & CEO 6/94 - 6/03

- 1994 - Founded Ensodex, Inc. USA and secured initial funding. Began development of HotSockets ODBC middleware product.
- 1995 - Recruited Ensodex technical talent and completed HotSockets for ODBC, a middleware-networking product. Incorporated the company and began the initial sales and marketing efforts.
- 1996 - Added to the Ensodex development team and brought the HotSockets product (still being sold) to market. Created multi-platform (Windows and Unix) versions of HotSockets and created initial marketing campaigns.
- 1997 - Led Ensodex to the first profitable year. Increased staff and added Sales & Marketing expertise.
- 1998 - Created additional lines of products. Personally developed the HotSockets for AurthorWare product (still being sold) and directed the development of HotSockets for JDBC product. Created alliance with Metaphase for Professional Services. Acted as project manager for Metaphase Product Life Cycle Management Development team. Created HotSockets sales channel with HotSockets for JDBC shipping with each Unisys ClearPath platform. Created the SQLBridge product used to link ODBC and IBM MQSeries middleware systems for increased EAI integration. Led Ensodex to increased profits and revenue.
- 1999 - Developed the Architecture and directed the Ensodex development team to create a product for Metaphase called "Accelis". Accelis is the first Composite Application Framework tool focusing on taking EAI to the next level. A configurable business logic layer with flexible legacy system connectivity. Delivered this product to Metaphase. It was completely developed in house at Ensodex and is currently being marketed by EDS as "TeamCenter Collaborator". Created professional services organization dedicated to Ford Motor Company and opened the Ensodex Dearborn office in Detroit, MI. Operated as a pre-sales consultant for Metaphase selling Accelis at Boeing, Ford, Rockwell, Lockheed, Motorola, Genmar, Matra BAE (France), Nokia (Sweden) HP, IBM, Johnson Controls, and many others.
- 2000 - Developed the Architecture and directed the Ensodex development team to create the Ensodex Tupelo Composite Application Framework product. Tupelo allows hardened security and pre-configured business logic to be executed against corporate legacy system. B2B, B2C and EAI can be installed and configured, rather than developed. A multi-platform J2EE product, Tupelo is now in production at Ford Motor Company for Tool Supplier integration. Expanded the Ensodex development staff and created Ensodex Europe SAS located in Paris, France. Ensodex Europe SAS is

a wholly owned subsidiary of Ensodex, Inc. USA. Led Ensodex USA and Ensodex Europe to profitable year-ends.

- 2001 - Expanded Ensodex USA and Ensodex Europe to a total of over 55 people with revenue in excess of $4.5M. Directed by the Ensodex Board of Directors to transition Ensodex away from services to pure product company by end of 2002 - Provided technical vision to product development focusing on WebServices, additional GUI design functionality. Worked with Sales & Marketing to develop new presales demonstrations and collateral for Tupelo CAS focusing on Financial Consolidation, Multi-site HR systems, and Corporate Intelligence Services. Directed Ensodex development to define and schedule the release of Tupelo Composite Application Server, allowing greater EAI and Collaboration solution power from pre-configured components.
- 2002 - Continuing the Ensodex transition away from integration services to a pure product company. Engaged Investment Bankers, created the Ensodex business plan and technology vision to take to the capital markets. Expanded and strengthened the Ensodex board of directors and the Ensodex management team. Streamlined costs to react to market contractions.
- 2003 - Implemented the orderly shutdown of Ensodex in response to market conditions affecting IT consulting and software sales. Negotiated contract terminations.

Unisys Corporation, St. Paul, MN, Department Manager, Database Systems Development 6/90 - 6/94
Software development manager in charge of database systems for Unisys with offices in St. Paul, MN, Los Angeles, CA, and Sydney Australia. In that capacity I oversaw the architecture design, development and release strategies of the Unisys mainframe database systems of Unisys 2200 Relational Database Management System (RDMS), and the Network based management system Unisys A-Series DMS. Also during that time, I was lead architect and development manager in charge of creating the Griffin database system for Unisys. This system is a high performance multi-platform relational and object database system. All of these products are still in production at Unisys, a leader in OLTP database solutions.

Unisys Corporation, St. Paul, MN, Manager, 1985 - 6/90
Responsible for directing a group of system software developers for various internal Unisys IT projects. Projects included installation software for Unisys system software, production software for automated Just In Time software media creation, and programmer development frameworks and tools.

Unisys Corporation, Clear Lake, IA, System Programmer, 1981 - 1985
Worked as a system programmer on various Unisys system software projects including Expert System development and Artificial Intelligence systems, software distribution systems and software release management systems.

EDUCATION

University of Iowa, Iowa City, IA, 1980, M.S. Computer Science
Awarded Teaching Research Fellowship of the Computers Science Department
Instructor of Record Cobol, Computer Science Department
Instructor of Record Fortran, Computer Science Department

University of Iowa, Iowa City, IA, 1977, B.S. Honors in Psychology
Honors for Research in Operant Conditioning.

Project Manager

Product 1 – SERVS Base Infrastructure and Product 2 – SERVS Student

CRAIG G. RHOMBS

Summary: A versatile project manager/leader with experience in large and small technical projects. Has a history of successful dealings with troubled projects, of making efficient use of human resources, and of creating successful outcomes that meet or exceed business user expectations.

> "Working with Craig frequently becomes an opportunity to 'watch and learn' as he has the enviable ability to transition between being a project manager, subject matter expert, business analyst, customer advocate and mentor as the dynamics of a project require." – a former supervisor

Successes and Strengths

Practical application of technical facilities to business needs. Succeeded where seven previous managers had failed in stabilizing, upgrading, and providing a more functional software system that met business goals (i.e., improved user efficiency through faster responding and more stable systems). Assessed needs & set priorities; performed cost benefit analysis. (Northern States Power Geographic Information Systems - $1,000,000+ in improvements and replacements)

Building teams. Struggling production system for 150+ users: repaired broken customer and vendor relationships and fostered an atmosphere of cooperation that led to rapid stabilization of existing software systems and deployment of new ones. Coordinated people across five departments and two companies. (Northern States Power Geographic Information Systems)

Independent and accountable. Formed and led a nearly autonomous group to create, maintain, deliver, sell, and support a commercial off the shelf product. The product became an industry leader with exceptional user support. (Stand-alone communications middleware at Siemens – internal group of 6-8 people - grew the business from no customers to 25 customers and 50 product instances across the world.)

Technical Contribution. Led technical discussions associated with the middleware product mentioned above. This resulted in better scheduling, coordination, testing – in general a better product that was easier to maintain and deliver. (Stand-alone communications middleware at Siemens) – Similar contributions have been made in other projects. Advanced knowledge of computer systems and equipment, object oriented design techniques, software source control systems, complex system analysis, up to date with leading edge techniques, participates in design reviews.

PM Principles - Administers projects/products reasonably and realistically. Provided timely realistic project schedules that allowed effective coordination of delivery teams and customer teams. Continuous attention to scope, schedule, cost, and quality led to few surprises. Realistic effort estimates. (Los Angeles Department of Water and Power SCADA System - $8,000,000 project)

Sets expectations at appropriate levels and clearly communicates limitations and strengths. Created a well developed plan and well coordinated delivery efforts that very accurately met customer needs and had about a half year payback. By involving the customer in decision making throughout the project, project effectiveness and timely acceptance were insured. ($500,000 data synchronization project for a telco)

A Trusted Leader. Use of integrity in customer and internal team dealings built trust which facilitated coming to agreement on closure of various aspects of a large project. (Los Angeles Department of Water and Power SCADA System)

Professional Experience:

Software Project Manager (Business Intelligence, Security, Asset Management)

Minnesota Department of Education, September, 2004, to the present

- Projects: Business Intelligence facilities implementation for agency data; Oblix Security software customization; Altiris product implementation for asset management; on-line editing & presentation of No Child Left Behind data.
- Technical environment: MS Project 2003 Enterprise & SharePoint Services used for scheduling and resource planning, mulit-tiered web delivery environment consisting of web servers, application servers, and relational database management servers. JAVA applications.

Managing Partner
IntraCom LLC, Lino Lakes, MN, April, 2003 to December, 2004

- Applied spatial analysis techniques to solve business problems. – Novel data mining and analysis techniques for healthcare and retail settings.
- Project management and product development and application integration consulting.
- ArcGIS, GIS, spatial analysis, MS Access, DICOM, HL7, data conversion/modeling, SQL, US Census

Project Manager (energy management systems delivery - $100,000 to $8,000,000 value)
Open Systems International, Plymouth, MN, June 2001 to November 2002

- Supervised contractor efforts to be sure contractual agreements were met on a large ($8,000,000) project.
- Led periodic customer meetings, managed customer perceptions, and refined the definition of deliverables. Known for excellent customer relations and getting things done on time.
- Took on extra responsibilities by offering to close out smaller projects. Succeeded in reaching an agreement on an $800,000 project that provided a way to close out the project. Also spearheaded the delivery of a previously languishing system upgrade to another customer. These actions secured payments that had not been achieved in past efforts.
- Unix, Windows, MS Office Suite, MS Project, SCADA, Oracle, High availability, C, SQL

Manager of the Technical Services Group (outage management systems development and delivery) CES International, Plymouth, MN, November 2000 to May 2001

- Planned and coordinated work on multiple projects across about 20 resources in four locations. Work included data communications interfaces and GIS data modeling and import.
- Was counted on to resolve problem contracts and to develop technical strategies to streamline development and delivery processes.
- TCP/IP, ICCP, XML, MQ Series, data modeling, C++, outage management, MS Project, GIS

Project Manager, I/T Applications Services (production GIS environment – 150+ users)
Northern States Power (XCEL/IBM) Minneapolis, MN, June 1999 to October 2000

- Repaired a broken relationship with a vendor and laid the groundwork for negotiations leading to a warehouse facility and a migration project.
- Planned testing and implementation of upgrades to production systems to minimize impact to users and to increase system stability. Coordinated efforts with vendors, other parts of the IT organization, and management of the system users.
- Created a plan for the actual migration, negotiated key performance aspects of the migration contract. The plan was started while I was there and completed later.
- Directly supervised 5 people coordinated the efforts of more across 5 departments and 2 companies.
- ArcSDE, ArcGIS, cartography, data conversion & modeling, VB, Unix, Windows, Oracle, OOD, MS Project

Project Manager (communications middleware – shrink-wrapped solution)
Siemens Power Systems Control, Brooklyn Park, MN, Feb. 1996 to May 1999

- Took this product from a very immature state to a point where it could be used out of the box to deliver a standard solution with zero variances.
- Built and managed a team of 8 people for development, delivery, and support of a high performance stand-alone data communications product based on an industry standard protocol.
- Delivered presentations for potential customers and user groups internationally.
- TCP/IP, ICCP, C, C++, high availability, SCADA, Oracle, Sybase, MS Dev. Studio, OOD, SQL, MS Project

Lead Project Software Engineer (large scale data synchronization - $500,000 value)
Apertus Technologies, Inc., Eden Prairie, MN, May 1994 to February 1996

- Led a team of 5 people in a successful data synchronization project for a telecom company. Customer was pleased by a project payback period of about a half year.
- Data synchronization, C, C++, OOD, Informix, Unix, SQL

Education:

Master of Science in Computing and Information Science, Trinity University, San Antonio, TX.
Master of Science in Astronomy, University of Iowa, Iowa City, Iowa.
Bachelor of Arts in Physics and Astronomy, Vanderbilt University, Nashville, Tennessee. (Magna Cum Laude, Phi Beta Kappa)

Project Manager
Product 3 SERVS Staff

SALLY M. GORDON

SUMMARY

Project Manager with strong background in data management, financial reporting and all phases of project management. Consistent success in completing projects, building databases and designing workflows to improve efficiency and reduce financial risk. Creative, common sense problem solver.

PROFESSIONAL EXPERIENCE

Minnesota Department of Education, Roseville, MN, Project Manager, 2003 - present
Managed all levels of IT-related projects from discovery phase through implementation and lessons-learned using a PMP-based process. Created all levels of project documentation, project plans and tracking systems using Microsoft Project and Sharepoint software and assisted division with developing project management process.

- Web-based data collections of a variety of education data and subsequent analysis
- Web-based job bank/recruitment system for educators and school districts.
- Web-based system to apply for and renew teacher and administrator state licenses integrating new and legacy systems.
- Product management and enhancement for existing systems
- EDFacts/EDEN: federally mandated educational statistics
- STAR: staff demographic and assignment data used for state and federal reporting
- CARL PERKINS: student participation data for vocational education

US Bank, St. Paul, MN, Systems Analyst, 1998 - 2003
Administered Access databases, supported recordkeeping and other PC-based software, prepared ad hoc reports for all staff and clients.

- Designed, implemented and maintained client contribution tracking system, increasing staff productivity and reducing financial risk.
- Designed, implemented and maintained IRS year-end reporting tracking system, improving tax preparation turnaround time, providing historical data for future returns and increasing client satisfaction with tax preparation.
- Designed, implemented and maintained general-inquiry client database, allowing storage of client data not available in proprietary accounting systems and providing centralized source of client data that facilitated administrator interaction with clients.
- Designed, implemented and maintained monthly fund performance data transfer for 100+ funds, meeting one-day standard for posting returns and client expectation for viewing returns on company website.
- Wrote full range of reports designed to meet client and administrator specifications. Increased client satisfaction, provided data analysis for administrators.

Piper Trust Company, Minneapolis, MN, Systems Specialist, 1996 - 1998
Developed and implemented date tools that organized client synoptic and financial data. Developed and maintained a variety of department workflows. Acted as project manager/liaison with parent company IS department for shared projects.

- Developed and implemented daily uninvested cash report, reducing financial risk and meeting client investment expectation.
- Developed and implemented daily trading file for retirement plans, and successfully automated accurate data transfer between two unrelated systems which improved processing efficiency, and met client investment requests.
- Created and implemented file and vault storage tracking system which improved filing efficiency and accuracy and shortened turnaround time for file retrieval.
- Designed SAS 70 reporting, allowing efficient daily review of data.
- Finalized disaster recovery plan, meeting department and parent company requirements.
- Developed procedure for opening and closing trust accounts reducing financial risk for incoming and outgoing assets, improving client satisfaction and providing required data to administrators.

OTHER RELEVANT EXPERIENCE

- Operations Supervisor, Compliance Representative, Administrative Assistant, Piper Trust Company, Minneapolis, MN
- National Conference Director, National Women's Studies Association, College Park, MD
- Administrative Coordinator, Sociology Department, Georgia State University, Atlanta, GA
- Financial Aid Specialist, Georgia State University, Atlanta, GA

EDUCATION

- M.S., Experiential Education, Mankato State University, Mankato, MN, 1982
- BA, English, Spanish minor, San Diego State University, San Diego, CA, 1980

ORGANIZATIONS

Volunteer Band Manager, Minnesota Police Pipe Band; general volunteer Tapestry Folkdance Center

Project Manager
Product 4 SERVS Organization

Jonathan Daniel Lord

OBJECTIVE

Information Technology Position where I can assist enterprises in solving their problems by improving services to users, and creating extraordinary software products, or a combination of both.

PROFILE

- Over two decades of experience acting as the liaison between business users and the IT environment helping both sides to create mutually acceptable business system solutions
- Effective change agent and accomplished leader with a strong portfolio of success in various industries including: general business, hospitality, trust, and financial services.
- Well-rounded Information Technology professional unafraid to roll up his sleeves to solve problems, which require hands-on attention; and, attention to detail.

PROFESSIONAL EXPERIENCE

Minnesota Department of Education; Roseville, MN, Project Manager December 2007 - Present

- Leading the development effort to re-engineer the Food and Nutrition Service Department's CLiCS application which manages the distribution of $80MM/Year in USDA funds for School Lunches and Milk Programs to Daycares and Schools across Minnesota.

Independent Consultant**, April 2006 - December 2007**

- Consulting to clients on infrastructure upgrades, operations improvement, data center moves, web site development, and systems deployment.

Sunrise International Leasing Corporation, Saint Louis Park, MN, Vice President - Information Technology April 1997 — April 2006

- As leader of the IT group, supervised staff of nine (Five employees and contractors), maintained full enterprise responsibility for Information Systems, and full software development lifecycle responsibility as senior technical resource and senior developer for a successful private label leasing organization
  - Reengineered custom vertical market ERP leasing application to reduce system failures from >10 per day to <1 per month.
  - Replaced entire IT infrastructure (Servers, Network fabric, Mail, Web, Shared File/Print, Power, Security, Environmental Control, and Relational Database) using best-in-class hardware and software to reduce ongoing costs.
  - Designed, developed and deployed warehouse workflow application to automate the sales process, warehouse management and shipping functions for lessee returns.
  - Reduced daily receipts processing to one from eight hours per day with lockbox application.
  - Suggested and implemented ACH payment processing for payment of resellers for equipment placed on lease to reduce the cost of each payment from $25.00 to $0.25.
  - Constructed customer service, lease origination, and marketing web presence.
  - Instituted standard operating procedures for IT operations, service standards for user support, standardized support documentation, and disaster recovery planning.
  - Employee development and mentoring.

US Bancorp; Saint Paul, MN, Senior Technical Consultant September 1992 — April 1997

- As part of the Emerging Technology Group provided analysis, design, development, integration, deployment, conversion, and support services to Corporate and Institutional Trust areas of one of the largest trust companies in the United States. Asked to join the organization by order of the president of the trust company after successfully completing first Keane contract assignment.
  - Analysis, design and application development. Designed, developed and deployed event-driven application to manage Corporate Trust Compliance function replacing an existing proprietary midrange hardware environment with shared server resources.
  - Designed and constructed a rules driven conversion engine for merger and acquisition data replacing hand coding for each conversion.
  - Created amortization/accretion calculator for bond portfolio positions to reduce calculation errors in Institutional Trust Accounting unit.
  - Reengineered remote customer access application created as a Keane Consultant for Microsoft Windows environment including customer ad hoc portfolio data extraction.
  - Cleared Wires notification system built to eliminate calls to the wire room inquiring on status of bond issuer receipts improving bond accounting clearing process by one day.
  - Technical support and mentoring to junior developers.

Keane Consulting; Bloomington, MN, Senior Developer November 1991 - September 1992

- As part of the Microcomputer services group, provided analysis, design, development, and implementation of custom business applications to Fortune 500 clients.
  - Requirements definition, hardware selection, analysis, design, and programming of remote customer access to Trust Transaction System for First Trust, NA.
  - Created and deployed an analysis and adjustment package for 401(k) plans to reduce the contributions of "highly compensated" employees to assure compliance of the plan under federal law for Norwest Banks, now Wells Fargo. Received, for this solution (first consulting assignment), "K" Pin award for exemplary customer service.

OTHER EXPERIENCE

Professional background also includes additional consulting engagements (September 1990 - November 1991); and, progressive experience at Radisson Hotels International (January 1984 - August 1990) from management trainee to Manager of Field Support for franchise and 30 managed properties.

EDUCATION

MS - Software Engineering, 1995 University of Saint Thomas; Saint Paul, Minnesota Concentration in Software Development

BS - Hotel Administration, 1983 University of Nevada, Las Vegas; Las Vegas, Nevada Concentration in Management Information Systems

PROFESSIONAL ORGANIZATIONS

Minnesota Information Professional Society Member 2006 - Organization disbanded 2008
Ruby Users of Minnesota Member 2006 - Present
Institute of Electrical & Electronics Engineers (IEEE) and IEEE Computer Society Member since 1997, elected to Senior Member April 2006; Chair Computer Society Twin Cities Section 2008.
Several other Special Interest Groups in Software Engineering and Management; and, Alumni Board, Graduate Programs in Software at the University of Saint Thomas

TECHNICAL SKILLS

Analysis and Management Methodologies:

- ER, Dataflow, Petri-Net, State charts, CRC/OR

- Various other analysis & design types.

Development Languages/Environments:

- Web: XHTML/HTML, CSS, PHP, JavaScript
- Database: MySQL, Oracle PL/SQL, Generic SQL
- Object: Java, J2EE, Xbase++, Smalltalk
- Other: Visual Basic, Powerbuilder, Visual Objects, Clipper
- Artificial Intelligence: LISP, and Prolog
- Legacy: COBOL, and FORTRAN

Application Software:

- Databases: SQL/Relational, Hierarchical, and Navigational
- Project Management: Microsoft Project, Timeline
- Office Productivity (Spreadsheets, Word processors, Mail, Presentation, PIM), Domino/Notes
- Terminal emulators and Communications scripting
- Text editors, IDE's, Utilities, CASE tools
- Diagramming tools

Hardware installation and support environments:

- Sun Sparc
- IBM Personal Computers/Servers, iX86 Architecture
- IBM Midrange (Series/1, System/36, System/38)
- Telecomm, Mobile, Network and Gateway equipment
- Data collection (Point-of-Sale, Timeclocks)

Operating Systems/Environments:

- Desktop: Windows (3.1-XP), OS/2, DOS, CP/M, Apple, Mac
- Server: Netware, Windows, Solaris, Linux
- IBM Midrange: EDX, CP & SSP

PUBLICATIONS

- Several computer related articles for hospitality trade magazines
- Internal Technology White Papers

COMMUNITY

- Mentoring to University of Saint Thomas Software Engineering Graduate Students
- Volunteer for Tech Corps as a classroom speaker and High School technology mentor
- FIRST Lego League referee for three years
- Webmaster for several non-profit organizations

RECOGNITION

- "K" Pin award for excellent customer service following first Keane consulting engagement.
- Offered permanent position at First Trust, (US Bank) following initial consulting engagement.
- Elected Senior Member of the IEEE; less than 10% of world-wide IEEE membership has the qualifications necessary to be a senior member.

PROFESSIONAL EXPERIENCE

Dahl Consulting, 2004-Current

MN Department of Education, Project Manager/Business Analyst, July, 2006-Current

- Project management for Research and Assessment division's annual test administration file exchange processes and IT deliverable file exchanges with contracted vendor.
- Project management for administrative portal development, intended for internal maintenance of test database information.
- Project management for 2007 school report card compilation and web publication process
- Business analysis for documenting requirements, development, testing and successful implementation of Educator Licensing application, a phased online application system for state licensure application or renewals.

Deluxe, Project Manager May, 2004-June, 2006

- Defined compliance documentation process and templates, and initiated compliance documentation with business owners, with strong focus on training and education.
- Experienced with Sarbanes-Oxley, including:
  - Translating segregation of duties activities into application-neutral business language.
  - Virtual networking with corporate-wide business experts to define applicable critical transactions, segregation of duties mapping (system transactions within and across multiple applications) resulting in identification of conflicts requiring remediation and/or mitigating controls.
  - Performing analysis on segregation of duties, networking with system resources to obtain system access reports, and compiling cross-application segregation of duties reports.
  - Providing remediation planning alternatives for business review and implementation, documenting approved management controls in compliance documentation.
  - Facilitating annual periodic review with business owners, assessing access to critical transactions, remediation of segregation of duties, and reviewing a sampling of existing mitigating controls.
  - Recommending prospective test case scenarios based upon completion of initial segregation of duties and mitigating controls analysis.
- Provided business project management for role-based access, basing job role access on need to know standards (defining job-dependent access from analysis of historical-inherited access, disclaiming access needs within system architecture constraints, and developing systematic checks to monitor compliance). This included development of bridge documentation translating business language into technical terms, improving end-user experience for access requests, expediting security access provisioning, and improvement of corporate compliance.
- Virsa application support and liaison between business and technical resources on simulation and identification of SAP segregation of duties, critical transactions, and mitigating controls (including Virsa firefighter emergency access roles).
- Business analyst facilitation between development teams and business resources on business process flowcharting and re-engineering.
- Implemented online data access request tool within six weeks, streamlining methods of process.

- Provided project management for online data access request application including: requirements gathering, support, enhancements, prioritization, testing, development and implementation of change control process.
- Managed one direct report, a contract Lotus Notes developer.

Thomson-West, 1987-2004
Order Fulfillment Manager
- Directed centralized training, leveraging resources of cross-functional teams focused on documentation authoring, presentation and logistics/scheduling for local and global audiences. (Classroom or web instruction.)
- Management of four direct reports with a staff of thirteen.
- Selected to lead project management initiatives (e-commerce/efficiency opportunities) realizing operational, time and/or cost efficiencies.
- Coordinated with multiple business units in the successful implementation of SAP and subsequent upgrades. Achieved efficient, integrated business application, replacing several legacy applications.
- Led tier 1 problem identification/resolution for desktop and business applications coordinating problem escalation and central communications.
- Created department web page, significantly improving speed, accuracy, consistency and accountability of information for company-wide users.
- Authored technical/training job descriptions providing role clarity and career pathing.
- Managed budgeting and forecasting needs for business unit (monthly variance analysis, development of staffing models and resource utilization reports), providing opportunities to identify and streamline investments/optimization of resource allocation.
- Developed operational metrics (performance benchmarking, quality, and call center reports), realizing integration opportunities in operational output, increasing volume/revenue by 16% while reducing staff by 10%.

Order Fulfillment Supervisor
- Supervised up to thirty direct reports.
- Broadened operational knowledge (order entry/integrated areas) providing foundation for process improvement opportunities and positioning for greater responsibilities.
- Co-authored functional unit job descriptions, clarifying individual responsibilities, ensuring existing and future hires meet skill, performance and quality expectations.
- Identified multiple areas of improvement, initiating action plans, etc. for improving order entry process, and central training.

Compact Disc Administration Group Leader
- Group leadership for ten direct reports
- Identified process improvements significantly reducing production cycle time (seven to four weeks), networking with programming and editorial resources.
- Justified resource needs where appropriate. Recruited and trained new or existing employees to improve efficiency, flexibility and productivity.

EDUCATION: **MBA, Business Administration** - Cardinal Stritch University; **BA, German & Secondary Education Majors, Business** Minor - University of Minnesota; **Foreign languages** - German, Spanish, and French

Subject Matter Expert
MDE Policy Initiative 1: Start Early

Lisa Backer

Education

University of Minnesota, Ed.D. Education Policy and Administration, 1998 - 2009

1. Anticipated date of completion - Winter 2009/2010. Dissertation topic: Quantitative analysis of program attributes that correlate with positive outcomes for young children with disabilities.

St. Cloud State University Licensure, Early Childhood Special Education1988 - 1990
Also licensed in Pre-K education and parent education

Mankato State University, Bachelor of Science: Home Economics Education, 1979 - 1982

PROFESSIONAL EXPERIENCE

MN Dept of Education, Education Specialist, Early Childhood Special Education 2000 - 2009

2. Technical assistance to local ECSE programs
3. Ongoing ECSE program evaluation
4. Developer: ECSE District Data Profile
5. Data Manager for Part C of IDEA
6. State staff to Governor's ICC, MnSIC and the State Early Intervention Team
7.

Rum River Special Education Cooperative, Early Childhood and Interagency Coordinator 1994 - 2000

8. Consultant to ECSE programs in 7 member districts
9. Assist in selection and supervision of program staff
10. Collaborative Director: Mille Lacs Family Services Collaborative
11. Team Leader: Continuous Improvement Monitoring Process
12.

Cambridge Isanti Public Schools, Early Childhood Special Educator 1987 - 1994

13. Lead 3-5 program staff member
14. Develop and monitor annual program budget
15. Develop and implement appropriate IFSPs for up to 25 children annually
16. Early Childhood Screening team leader
17. Develop and implement curriculum based on children's literature
18.

LeSueur County Development Activity Center, County-wide Preschool Coordinator 1985 - 1987

19. Public awareness, childfind

Individual program development and implementation

ADDITIONAL PROFESSIONAL ACTIVITIES

Adjunct faculty member for St. Cloud State University 1996 - 2000
Successful grant writer

- 2000: $400,000 - MN Dept. of Human Services
- 1999: $40,000 - MN Dept. of Children, Families and Learning
- 1998: $ 3,500 - Central MN Initiative Fund
- 1997: $39,000 - Children's Trust Fund
- 1997: $313,000 - U.S. Department of Education

Member: Executive Board, National Division of Early Childhood: Council for Exceptional Children

Presentations at National Conferences/Meetings

- 2/2005: OSEP National Early Childhood Conference *No GSEG? Low Budget Data Initiative with High Budget Impact*
- 12/2005: OSEP National Early Childhood Conference *LRE in ECSE under IDEA…and other interesting acronyms*
- 8/2007: National Child Outcomes Meeting *Increasing Rates on the Family Outcomes Survey*
- 6/2008: OSEP/Westat Overlapping Part B/C Data Meeting
- 8/2008: National Child Outcomes Meeting *Getting Better All The Time*

FELLOWSHIPS

Education Policy Fellowship Program: Institute for Educational Leadership Fellowship Coordinators: Van Mueller, Professor Emeritus; University of Minnesota

Special Education Leaders Fellowship: Project Lead Fellowship Coordinator: Don Krukow, PhD; MN Dept. of Education

Subject Matter Expert
MDE Policy Initiative 1: Start Early

Karen M. Carlson

EDUCATION
Master's Degree, Early Childhood Education, University of Minnesota
Bachelor's Degree, Child Psychology and French, University of Minnesota

EMPLOYMENT
Minnesota Department of Education

- Director, Early Learning Services 2/03 - present

  Responsibilities include: administrative and programmatic oversight of state's early childhood education programs – Early Childhood Family Education, School Readiness, Head Start, Early Childhood Health and Developmental Screening, Early Childhood Special Education, Early Intervention for Infants and Toddlers, parent information website and statewide kindergarten readiness assessment; policy development with governor's office and state legislature regarding early childhood education programs.

Minnesota Department of Children, Families and Learning

- Assistant Commissioner, Office of Community Services 2/99 - 2/03

  Responsibilities included: oversight and leadership to program managers administering services in the divisions of Early Learning Services, Youth Supplemental Services, Economic Opportunity, Food and Nutrition Services; policy development with governor's office and state legislature regarding community services programs.

- Manager, Early Childhood and Family Support 1/97 - 2/99

  Responsibilities included: development and implementation of shared vision for integrated early childhood services (early childhood education, Head Start and child care); provision of technical assistance to local school district and private programs; budget, contract and grants management.

- Supervisor, Systems Change/Service Delivery 12/95 - 12/96
- Supervisor, Child Care 10/96 - 12/96

  Responsibilities included: administration of family services collaboratives; budget, contract and grants management; supervision of transition of child care team from the Department of Human Services to the Department of Children, Families and Learning.

Minnesota Department of Human Services

- Supervisor, Family and Children's Services Division 12/92 - 12/95

Responsibilities included: administration of children's services including child care, crisis nurseries, early intervention for infants and toddlers, children's justice, child mortality review, adolescent services and revenue enhancement; development and management of federal and state budgets, contracts and grants.

- Manager, Family and Children's Services Division Operations 3/90 - 12/92

  Responsibilities included: development and implementation of division-wide management systems and quality control efforts.

- Program Associate, Governor's Council Children, Youth, Families 12/87 - 3/90

  Responsibilities included: policy analysis and research on child and family services/systems; administrative support to statewide citizen council; advised governor on child development issues.

- Human Services Licensor 1/86 - 12/87

  Responsibilities included: provision of technical assistance to and monitoring of compliance of counties, private agencies, service providers, county attorneys regarding rules, laws, procedures and policies of child care, child and adult foster care.

Resources for Child Caring, Inc.

- Director, Child Care Provider Services 7/83 - 1/86

  Responsibilities included: development, implementation and evaluation of community child care services, including development, implementation and evaluation of first statewide child care center accreditation program.

Mounds View School District #621

- Director, Early Childhood Family Education (ECFE) 10/76 - 7/83

  Responsibilities included: supervision of professional teaching and clerical staff; development, implementation and evaluation of child development curricula and parent education services for young children, their families and youth in large suburban school district.

University of Minnesota, Center for Early Education and Development

- Administrative and Research Assistant 10/75 - 10/76

  Responsibilities included: development, implementation and evaluation of child development training programs for public and private human services professionals; translation and analysis of child development and child care research for lay audiences; editor of child development newsletter.

Subject Matter Expert
MDE Policy Inittive 2: EFFECTIVE Teacher Preparation

Karen Balmer

EDUCATION
Humphrey Institute of Public Affairs, University of Minnesota, Minneapolis, Minnesota - Master of Arts in Public Policy, June 2004. Concentration Area: Social Policy, emphasis in Education Policy

Taylor University, Upland, Indiana - Bachelor of Arts in Elementary Education, May 1994

PROFESSIONAL EXPERIENCE
Minnesota Board of Teaching: Roseville, Minnesota, Executive Director 2006-Present

- Facilitate the work of the Board of Teaching; plan and facilitate initiatives to meet the Board's annual goals:
  -Technology task force leading to licensure recommendations (2006-2007)
  -Middle level task force leading to licensure recommendations (2006-2007)
  -Reading task force leading to licensure recommendations (2007-2008)
  -Special education revision process (2008-2009)
  -Program approval redesign team (2008-2009)
  -Implementation of alternative pathways (2007-Present)
  -Rulemaking initiatives (Ongoing)
  -Reciprocity initiative (Present)
  -Redevelopment of licensure test structure (Present)
- Work collaboratively with a wide array of critical stakeholders
- Oversee and manage Board of Teaching staff and budget
- Provide ongoing communication to Board members, school personnel, higher education faculty, the Minnesota Department of Education, stakeholder organizations, legislators, and members of the public

Minnesota House of Representatives: St. Paul, Minnesota, Committee Administrator**,** Education Finance Committee 2006

- Planned and organized all Education Finance Committee hearings
- Worked closely with the Committee Chair and Committee Members
- Tracked bills and provide appropriate analysis, background and additional materials to Representatives
- Communicated regularly with representatives from MN Department of Education, Governor's office, staff, lobbyists regarding the work of the Education Finance Committee

Minnesota House of Representatives: St. Paul, Minnesota, Research Consultant**,** Republican Caucus 2004-2006

- Worked collaboratively and communicated effectively with Committee Administrators, Research colleagues, GOP Leadership staff, Constituent Services, Media Services, and non-partisan Legislative staff
- Prepared accurate and comprehensive committee briefs and bill summaries for members of the Legislature

- Generated research in response to requests for information from Members or GOP Leadership staff in a timely manner
- Project manager for 2005 GOP Wrap-Up document; contributor for GOP Vote Abstract and GOP Political Vote Abstract

Independent School District 191: Burnsville-Eagan-Savage, Minnesota, School Board Director 2002-2006

- Publicly elected to work cooperatively with Board members, superintendent and cabinet members, staff, families and community to oversee all district programs, curriculum and instruction, testing and graduation standards, state and federal mandates, human resources
- Adopt and monitor school district budget and all district finances
- Oversee the implementation of ISD 191 Strategic Plan
- Policy Review Committee (2003, 2005-2006)**:** Collaborate with fellow board members to review existing School Board policies, generate discussion, and submit recommendations for changes or rationale for maintaining current policies
- Minnesota School Board Association Delegate (2004-2006): Represent ISD 191 at the Delegate Assembly, where MSBA legislative platform is determined
- Meet and Confer Committee (2002-2004)**:** Collaborate with district teachers and administrators regarding human resource issues and concerns
- ISD 191 Negotiations Committee (2003)**:** Pursued collective bargaining agreement with the teacher's union, seeking a fair and competitive contract that was affordable and equitable for the school district
- Legislative Coalition (2002)**:** Met regularly with community members, district staff and local legislators to discuss education policy and strategy; mobilized community members and provided opportunities for involvement in education policy-making

University of Minnesota: Department of Curriculum and Instruction, Elementary Student Teacher and Practicum Supervisor 2003-2004

- Assessed and monitored progress of student teachers and practicum students
- Mentored student teachers and practicum students through observation, feedback and evaluation
- Served as liaison between University staff, classroom teachers and practicum students

Christ Presbyterian Church, Edina, Minnesota, Full-time Youth Worker 1998-2002

- Facilitated weekly leadership meetings
- Mobilized and worked cooperatively with parents on committees and task forces
- Developed motivational speaking skills in large group settings
- Wrote and taught weekly curriculum for all ninth through twelfth grade students

Hidden Valley Elementary School, Savage, Minnesota, Full-time Second Grade Teacher 1994-1998

- Developed creative activities to stimulate and motivate students
- Formed partnerships with parents for the maximum development of each child
- Worked collaboratively with colleagues to develop and enhance curriculum

Subject Matter Expert
MDE Policy Iniative 3: Shared Stakes Shared Accountability

Dirk Patrick Mattson, Ph.D.

EDUCATION
Arizona State University, Tempe, AZ - Ph.D. Curriculum & Instruction, June 1996 to May 2001.
Emphasis in English Education

Mankato State University, Mankato, MN - M.S. English, September 1994 to June 1996.
Concentration in Teaching

Concordia College, St. Paul, MN - B.A. (Magna Cum Laude) Secondary Education: English & Social Studies, September 1988 to May 1991

PROFESSIONAL EXPERIENCE
Minnesota Department of Education, Director of Research & Assessment, July 2006 to Present,
Supervisor: Chas Anderson, Deputy Commissioner

- Duties: Provide psychometric, policy, and management level leadership to Minnesota's statewide assessment program and the assessment components of No Child Left Behind (NCLB). Ensure that the process of developing and administering tests and state policies are aligned with procedures that guarantee the valid and reliable measurement of student achievement and system accountability.

Minnesota Department of Education, Manager of Test Development, December 2003 to July 2006,
Supervisor: Dr. Tim Vansickle, Director of Research & Assessment

- Duties: Oversee item development and test construction of the Minnesota Comprehensive Assessments-Series II for reading and math that serve as the state's fulfillment of No Child Left Behind accountability measures, as well as the state's required assessments for graduation in reading, math, and writing.

LICENSURES
- K-12 Superintendent
- K-12 Principal
- 7-12 Social Studies - All
- 7-12 English/Language Arts

ASSOCIATION MEMBERSHIPS
American Educational Research Association
Association for Supervisors of Curriculum and Development
Minnesota Association for Supervisors of Curriculum and Development
National Association of Test Directors

NATIONAL CONFERENCE PRESENTATIONS

With Jennifer Isaacs, Denny Way and Claudia Davis. "Assessing Writing Online: The Benefits and Challenges." 2009 National Conference on Student Assessment. 2009 National Conference on Student Assessment. June 21, 2009. Los Angeles, CA.

With Scott Marion, Matt Trippe, Deborah Swensen, Tony Thompson and Rich Hill. "Keeping All Those Balls in the Air: Challenges and Approaches for Linking Test Scores Across Years in Multiple Format Environments." 2009 National Conference on Student Assessment. June 22, 2009. Los Angeles, CA.

With Matt Gandal, Karen Nicodemus and Margaret Horn. "Making College and Career Readiness the Central Driver of an Assessment System." 2009 National Conference on Student Assessment. June 23, 2009. Los Angeles, CA.

With Carole Gallagher, Robert Bernstein and Stanley Rabinowitz. "Strategies for Balancing State and Federal Components within a Coherent, Comprehensive Accountability System: Lessons Learned." 2009 National Conference on Student Assessment. June 23, 2009. Los Angeles, CA.

With Louis Fabrizio, Gayle Potter and Timothy Vansickle. "Three State Perspectives of Growth: Practical Considerations Based on Long and Short Term Use." 2008 National Conference on Student Assessment. June 17, 2008. Orlando, FL.

With Wes Bruce, Anne Howard, Michael Hussey and Ed Roeber. "Improving the Working Relationships between States and Their Contractors - Steps Each Can Take, Part II." 2008 National Conference on Student Assessment. June 18, 2008. Orlando, FL.

With Wes Bruce, Anne Howard, Michael Hussey and Ed Roeber. "Improving the Working Relationships between States and Their Contractors – Steps Each Can Take, Part I." 2007 National Conference on Large-Scale Assessment. June 19, 2007. Nashville, TN.

With Rob Kirkpatrick and Joseph Martineau. "Field Testing To Support Assessment Programs: Options, Pitfalls, and Technical Considerations." 2007 National Conference on Large-Scale Assessment. June 19, 2007. Nashville, TN.

With Kate Harts and Susan Ourada. "Beyond Beavis and Butthead: Do We Have to Teach Kids to Laugh?" 1999 National ALAN Workshop. November 21, 1999. Denver, CO.

With Kate Harts and Susan Ourada. "A World of Archetypes and Their Uses in Teaching Literature." 1998 National ALAN Workshop. November 23, 1998. Nashville, TN.

NATIONAL COMMITTEE MEMBERSHIPS

July 2009 to Present - Member - Committee on Best Practices for State Assessment Systems: Improving Assessment while Revisiting Standards, National Research Council

July 2008 to Present - Member - Best Practices Working Group for Large-Scale Assessment Procedures, Collaboration between Council of Chief State School Officers and the American Test Publishers

Subject Matter Expert
MDE Policy Initiative 4: Q Comp

Patricia K. King

PROFILE

Creative, innovative Education Professional with more than 18 years in the field, in increasingly responsible roles. Background includes classroom experience, as well as district-wide posts in outstate Minnesota, and statewide program management for the Minnesota Department of Education. Licensed Minnesota Principal and Superintendent Licensure; possess Masters Degree in K-12 Curriculum and Instruction and Bachelors in Elementary Education.

STRENGTHS

- A consultative, strategic planner, with experience guiding numerous schools and districts
- Positive working relationships with superintendents, district officials and school boards statewide
- Exceptionally strong knowledge of Q Comp, NCLB, and other state and federal legislation
- In-depth understanding of complex education laws and regulations, including state and federal educational programs and regulations
- Knowledgeable about legislative processes; strong connections in State offices
- Collaborative by nature; known for extensive efforts to develop partnerships at all levels
- A popular and effective presenter; author of several workshops and talks

EXPERIENCE HIGHLIGHTS

- Development, implementation and oversight of the nation leading Quality Compensation for Teachers (Q Comp) performance pay program
- Development and implementation of the Math and Science Teacher Academies
- Development of regional, statewide system of support to serve schools in need of improvement
- Development and implementation of the Title I School Improvement Grant Opportunity
- Oversight and management of the Enhancing Education Through Technology Grants (E2T2)

- Management of staffs of 27 or more
- Planning and administration of budgets over $7.5 million
- Design and content development for division website for MN Department of Education
- Initiation and / or implementation of successful school programs, including summer school, extended day school, and off-site Kindergarten with wrap-around child care
- Leadership role in Minnesota Association of Administrators of State and Federal Education Programs, to develop and co-chair annual conferences, and train other administrators

PROGRAMS AND GRANTS

Experienced managing or administering numerous grants, initiatives and programs, including:

•Q Comp	•Math/Science Teacher Academies	•School Technology (E2T2)
• AYP Services	•School Improvement Grants	•Neglected and Delinquent
•Summer School	•English as a Second Language	•Kindergarten Home School
•NCLB Programs	•Extended Day / Extended Year	•Migrant Education
•ARRA Grants	•Professional Development	•Homeless Education

ADMINISTRATIVE EXPERIENCE

Director of School Improvement, Minnesota Department of Education, Roseville, February 2006–present
Provide progressive, innovative leadership in the implementation of several high-profile statewide initiatives, including Quality Compensation (Q Comp) program, MSTA/MSTP programs, Enhancing Education Through Technology, professional development. Design / develop Adequate Yearly Progress (AYP) improvement initiatives and services to identified schools and districts.

NCLB Program Supervisor, Minnesota Department of Education, Roseville, July 2000–January 2006
Provided leadership and supervision for staff and programs, including the management and administration of $250 million in ESEA funds and coordination of required reporting procedures. Also implemented the Electronic Accountability Plan (EMAP), an e-Grant system, and developed and led statewide and internal training on EMAP processes. Planned and facilitated regular staff meetings that often included controversial issues; prepared policy memos; initiated and maintained relationships with external organizations and district staff; designed and maintained the division website.

Compensatory Program Manager, Moorhead Public Schools, Moorhead, MN, 1995–2000
Managed Title I, II, VI, Goals 2000, ESL and Migrant Education programs; facilitated and maintained communication between district entities; provided staff development opportunities; planned and managed numerous school programs. Also responsible for planning and managing various state and federal grants, policies and budgets, including the district's plan for IASA (Improving America's Schools Act). Managed $1.5 million IASA budget for both school and district level administration.

TEACHING EXPERIENCE

Kindergarten Teacher / Title I/AOM Coordinator, Moorhead Public Schools, 1994–1995
Successfully developed an off-site Kindergarten with wrap-around child care; also developed and submitted Moorhead Public Schools' Improving America's School's Act (IASA) plan.

Title I Kindergarten Home School Title Liaison, Moorhead Public Schools, 1993–1994
Developed, organized and implemented Title I Kindergarten Home School program, successfully involving parents in the education of their children in their homes.

K-6 Substitute Teacher, Moorhead Public Schools, 1991–1993

PROFESSIONAL MEMBERSHIPS

Delta-Kappa Gamma, present
ASCD member, Minnesota and National, current
National Staff Development Council member, current
National Association of Federal Education Program Administrators, 1998–2008
MDE Paraprofessional Policy Committee, Moorhead Public Schools, 2002–2006
MN Assoc. of Administrators of State & Federal Education Programs, 1996–2006 (President, 1999–2000)
Moorhead Public Schools ICAC / PER Committee, 1997–2000
Minnesota Family Literature Consortium, 1997–2000
Minnesota Parent Involvement Committee, 1996–1998
Minnesota Committee of Practitioners, Learner Options, MDE, 1995–1998

PROFESSIONAL ACTIVITIES

Publications

Co-authored *No Questions Left Behind: A Comprehensive Guide to Minnesota's Accountability Plan under the No Child Left Behind Act,* Minnesota Department of Education, May 2004, 2005, 2006

Conference and Workshop Leadership

Developed, organized and facilitated numerous state and regional programs, including:

- Regional and on-sight Q Comp trainings and/or informational sessions
- Regional annual technical assistance for schools identified as in need of improvement (AYP)
- Statewide, annual Spring Project Writing Workshops / Conferences presented to school districts to assist in writing and submitting Federal program grants (IASA, ESEA, NCLB), 2000–2006
- MDE / MAASFEP annual conferences, co-chair, 2000–2006
- Annual Fall Leadership Institute for new / returning administrators of Federal programs, 2000–2005
- Annual ESL / Migrant Education Conference, co-chair, 2000–2004
- "Federal Program Accounting" workshops, 2004
- "Migrant Education Grant Writing" workshop, Hutchinson, MN, 2004
- "School Accountability & Data Verification" workshops, 2004
- "Providing Services to Non-public Schools with ESEA Funds" workshops and presentations, in regional Minnesota, 2003
- "Regional Accountability Workshops," 2003
- "Training for Administrators New to Federal Programs," Shoreview, MN, 2001

Selected Presentations

- Minnesota Principal Academy Trainer for the National Institute of School Leadership, 2005–present
- "Serving Non-public Schools with ESEA / NCLB Funds," MDE / MAASFEP conference, 2004
- "No Child Left Behind Updates and Overview," statewide as requested, 2004
- "Accountability in Minnesota," MDE / MAASFEP conference, 2003
- "NCLB Accountability Requirements and Minnesota Report Card Overview," Morris, Bemidji, Faribault and Braham school districts, 2003
- "EDRS and UFARS," Business Managers conference, 2003; MAASFEP conference, 2003
- "Accountability in Minnesota," SELF-V Community, 2003
- "NCLB / AYP Implementation in Minnesota," MDE / MAASFEP, 2003, 2004, 2005
- "Federal Program Accounting," regional workshops, Minnesota, 2002, 2003
- "No Child Left Behind: Parental Involvement & Parental Choice," MAASFEP, 2003
- "Using the CLASS Website to Determine Student Needs," MAASFEP conference, 2003
- "

EDUCATION

K-12 Principal and Superintendent Licensure, University of St. Thomas, 2009
Superintendent Licensure Coursework, University of Minnesota, 2004–2005
Administrative Certification Coursework, Minnesota State University, Moorhead, 1999–2000
Master of Arts in K-12 Curriculum / Instruction, University of St. Thomas, 1996
Bachelor of Science in Elementary Education, Minnesota State University, Moorhead, 1993
Associate of Arts in Liberal Arts, Worthington Community College, 1988

SUBJECT MATTER EXPERT
MDE POLICY INITIATIVE 5: M2 D3

MARGARET ANN BIGGERSTAFF

Experience
I encourage the work of data driven decision making across all levels of education through my strengths of:

- Educator
- Data analyst
- Program evaluator
- Researcher
- Teacher
- Professional development expert
- Assessment expert
- Technology integrator

Education
Harvard graduate School of Education, Cambridge, MA Ed. D.
Thesis: Can Mary do mathematics problem solving? An investigation of the relationship between cognitive processing controls and mathematics problem solving

University of Iowa, Iowa City IA Non-degree student
Graduate work in Administration and Teaching Science and Mathematics

University of Illinois Urbana, IL M.A.

University of Northern Iowa, Cedar Falls IA B.A.

Employment
Minnesota Department of Education
Evaluation Specialist and Professional Development Specialist for School Improvement
Supervisor Research, Reporting and Psychometrics for Research and Assessment

Minneapolis Public Schools
High School Mathematics Teacher for Connection Center
Curriculum Developer/trainer for Cross Grade Peer Tutoring Project
K-8 Mathematics Resource Teacher for Green Central park School

Subject Matter Expert
MDE Policy Initiative 6: MIERS

CAMILLA A. LEHR

EDUCATION

1999	**Ph.D.**	**Educational Psychology** University of Minnesota, Minneapolis, MN
1986	**Ed.S.**	**Educational Psychology** University of Minnesota, Minneapolis, MN
1985	**M.A.**	**Educational Psychology** University of Minnesota, Minneapolis, MN
1982	**B.A.**	**Psychology** Graduated Magna Cum Laude Hamline University, St. Paul, MN

SUMMARY

Dr. Lehr is an Education Specialist at the Minnesota Department of Education (MDE). She currently directs the Project on Scaling Up Common Principles of Effective Practice in partnership with the National Center on State Implementation and Scaling up of Evidence Practice (SISEP). Prior to this she directed MDE's Dropout Prevention, Retention, and Graduation Initiative (competitive federal grant) working to develop and pilot a comprehensive model of dropout prevention with districts in Minnesota. She has over 20 years of experience in education including work as a school psychologist, researcher and university instructor. At the University of Minnesota, she co-directed an application of Check & Connect, an evidence-based model of student engagement; and directed a federally funded research study of alternative schools across the nation and the role they play in preventing dropout, providing quality education for students at risk, and serving students with disabilities. Dr. Lehr has presented at a variety of local and national conferences and has written research reports, journal articles, book chapters, and other documents with national impact. She is co-author of the book, *Graduation for All: A Practical Guide to Decreasing Dropout.*

PROFESSIONAL EXPERIENCE: STATE POLICY AND PRACTICE

2008-Present **Education Specialist, Minnesota Department of Education**
State Transformation Specialist, State Implementation and Scaling Up
Evidence Based Practice, College and Career Readiness Policy Institute: MN
Early Indicator and Response System, Dropout Prevention, Retention and Graduation Initiative

PROFESSIONAL EXPERIENCE: RESEARCH

1999-2006 **Research Associate**
Institute on Community Integration
University Center for Excellence in Developmental Disabilities (UCEDD)
College of Education and Human Development (CEHD)
University of Minnesota

1996-1999 **Associate Education Specialist**
Educational Psychology Department, CEHD
University of Minnesota

PROFESSIONAL EXPERIENCE: TEACHING

2005 **Instructor, University of MN**
School Psychology, College of Education and Human Development

2000-2001 **Instructor and Field Placement Coordinator, University of MN**
School Psychology, College of Education and Human Development

1997-1998 **Adjunct Faculty, Hamline University**
Educational Psychology, Education Department

PROFESSIONAL EXPERIENCE: SCHOOL

1986-1994 **Licensed School Psychologist K-12**
Independent School District 624
White Bear Lake, MN

RECENT PRESENTATIONS

June, 2009 *How Will We Do It All? Meeting the Needs of the Whole Child,* Summer Institute, Minnesota Social Workers. Two Harbors, MN.

March, 2009 *Improving Outcomes for All Students: Bringing Evidence-Based Practices to Scale,* Minnesota Response to Intervention Center Conference, Minneapolis, MN

February, 2008 *Toward Graduation for All: A Model for Supporting Student Success*, National Association of School Psychologists, New Orleans, LA.

SAMPLE JOURNAL ARTICLES

Lehr, C.A. Tan, C.S. & Ysseldyke, J.E. (2009). Alternative schools: A synthesis of state level policy and research. *Remedial and Special Education.*

Lehr, C. A., & McComas, J. (2005). Students with emotional/behavioral disorders: Understanding issues to promote positive outcomes *Impact. 18*(2), Minneapolis, MN: University of Minnesota, Institute on Community Integration, Research and Training Center on Community Living.

Lehr, C.A., Johnson, D.R., & Bremer, C.D., Cosio, A., & Thompson, M. (2004). *Increasing rates of school completion: Moving from policy and research to practice. NCSET Essential Tools.* Minneapolis, MN: University of Minnesota, Institute on Community Integration, National Center on Secondary Education and Transition.

BOOK

Lehr, C.A., Clapper, A.T., Thurlow, M.L. (in press). *Graduation For All: A Practical Guide To Decreasing School Dropout.* Thousand Oaks, CA: Corwin Press.

Subject Matter Expert
MDE Policy Initiative 6: AP Access

Sara Lee (Sally) Wherry, Ed.D.

EDUCATION

Doctor of Education (Educational Leadership), University of St. Thomas
Certificate in Public Relations, University of St. Thomas
Master of Arts in Curriculum and Instruction (Gifted & Talented), University of St. Thomas
Bachelor of Science (Speech Pathology), Northwestern University
Learning Disabilities Certification, Mankato State University
Secondary English Certification, University of St. Thomas

PROFESSIONAL EXPERIENCE

Supervisor - High School Initiatives - Minnesota Department of Education (2005-present)
Professional Development Specialist - Minnesota Department of Education (2004-2005)
Curriculum Coordinator/Professional Development (ISD 191)-(1997-2004)
Secondary Language Arts teacher - Independent School District #191 (1982-1997)
Adjunct Assistant Professor - St. Mary's University (1996-2004)
Founder/Coordinator - SORLA (South of the River Literacy Academy) (2001-2005)
Chair - District 191 Reading Committee (1998-2002)
Chair - District 191 Writing Committee (1998-2002)
Facilitator - District 191 Literacy Committee (2002-2004)
Co-facilitator - District 191 Staff Development Committee (1998-2003)
Chair-District Curriculum Review Committee (1993-1994)
Facilitator/Trainer - K-12 Curriculum Mapping in Language Arts (2003-2004)
Facilitator - District Language Arts Adoption (2002-2004)
Member - Technical Advisory Committee (TAC) - state advisory committee on testing initiatives (2001-2002)
Facilitator/Presenter/Coordinator - District 191 new teacher training (2002-2004)
Founder/member - District Advisory Council/ Gifted and Talented (1990-1995)
Chair and member - Burnsville Chamber of Commerce Education Committee (1988-1995)
Independent Consultant - Fred S. Meyer & Associates; Ideas to Go (1985-1997)

PUBLICATIONS

"No Wonder I Don't Know Who I Am" - Doctoral dissertation published by UMI Dissertation Services, December 1995

"No Wonder I Don't Know Who I Am: Messages from Peers, Parents, and the Media as Perceived by Bright Adolescent Females" - paper published in Gender and Race on the Campus and the School: Beyond Affirmative Action. Symposium proceedings selected papers: A.A.U.W. 1997

"A Gifted Program: What Difference Does It Make?" - Graduate Research Report published by the University of St. Thomas, 1988

Humor: Lessons in Laughter for Learning and Living - (co-authored with Berenice Bleedorn). DOK Publishers, 1984

ADDITIONAL TRAINING/EXPERIENCE

Advanced Placement/ International Baccalaureate programs - Supervisor (2006-present)
Governor's Workforce Development Council - Education Committee (2009-present)
College and Career Readiness Policy Institute - Dual Credit co-chair (2009-present)
Minnesota P-16 Partnership - Postsecondary Work group (2007-2009)
Success in Sight (McREL) - School Improvement training (2007-2008)
Data Retreat - certified trainer by Learning Point Associates (Fall 2005)
Formative Assessment - (Fall 2005)
Curriculum Design (McTighe & Wiggins) - (16 hours; Fall 2002)
Curriculum Mapping: Train-the-Trainer (Heidi Hayes-Jacobs) - (16 hours; summer 2002)
Cognitive Coaching (Costa & Sommers) - (Fall 2002)
SEED (Seeking Educational Excellence and Diversity) - (1998-1999)
C.A.R/S. training (Content Area Reading Strategies) - (24 hours; 2003)
Statewide Standard Setting Committee - MCA - Reading (April 2004)

PROFESSIONAL AWARDS

Teacher of the Year (1996) - Nicollet Junior High; Burnsville, MN
Learning Disabilities of Minnesota Award (1994)
Literary Magazine Award of Distinction - National Council of Teachers of English (1989)
"Hearts for Young Children" Award (1985)

Robert H. Meyer

CURRICULUM VITAE EDUCATION

1991	Ph.D., Public Policy, Kennedy School of Government, Harvard University
1978	Masters in Public Policy, Kennedy School of Government, Harvard University
1975	A.B., Economics, Harvard College

PROFESSIONAL BACKGROUND

2005-	Director, Value-Added Research Center, Wisconsin Center for Education Research (WCER)
2009-	Research Professor, University of Wisconsin-Madison
2007-2009	Senior Fellowship in Urban Education, Council of Great City Schools
1998-2009	Senior Scientist, Wisconsin Center for Education Research (WCER)
1998-2001	Lecturer and Research Associate, Harris Graduate School of Public Policy Studies, University of Chicago
1992-1998	Assistant Professor, Harris Graduate School of Public Policy Studies, University of Chicago
1991-1992	Assistant Professor, Economics Department and La Follette Institute of Public Affairs, University of Wisconsin-Madison
1989-1991	Instructor, Economics Department and La Follette Institute of Public Affairs, University of Wisconsin-Madison
1986-1989	Senior Economist, National Assessment of Vocational Education, U.S. Department of Education
1983-1986	Research Associate, The Brookings Institution
1982-1983	Staff Economist, Council of Economic Advisers

THE VALUE-ADDED RESEARCH CENTER (VARC)

Since its founding in 2005, the Value-Added Research Center has grown to support a staff of 44 diverse professionals, including full-time researchers, faculty, graduate students, data systems experts, and a business and data manager. With an annual research budget of over $3 million in fiscal year 2008-2009, the center currently operates 15 projects and conducts comprehensive research with numerous districts, states, and the federal government.

PAPERS AND REPORTS PREPARED FOR THE VALUE-ADDED RESEARCH CENTER

I. Value-Added Models of School and Classroom Productivity

"Classroom vs. School-Level Value-Added Models: Issues in Data Quality, Model Design, and Statistical Precision," (with Nandita Gawade), working paper, Wisconsin Center for Education Research, forthcoming.

"Mean and Variance Value-Added Indicators with Multilevel Shrinkage: Application to a Multi-District Statewide Value-Added System," (with Emin Dokumaci), paper to be presented at the American Education Finance Association Annual Conference, March 19-21, 2009.

Demonstration of a State Value-Added System for Wisconsin (with Emin Dokumaci, Ernest Morgan and Lisa Geraghty), Report to the Wisconsin Department of Public Instruction, Wisconsin Center for Education Research, February 2009.

A Generalized Value-Added Model with Conditional Random Effects and Multivariate Shrinkage," paper presented at the National Conference on Value-Added Modeling, University of Wisconsin-Madison, April 22-24, 2008.

"Value-Added and Other Methods for Measuring School Performance: An Analysis of Performance Measurement Strategies in Teacher Incentive Fund Proposals," (joint with Michael Christian) paper at the conference on "Performance Incentives: Their Growing Impact on American K-12 Education," National Center on Performance Incentives, Vanderbilt University, February 28-29, 2008.

"Student and School Performance Targets: A Framework for Unifying the Objectives of NCLB and the Logic of Value-Added," paper presented at the conference "Will Standards-Based Reform in Education Help Close the Poverty Gap?" sponsored by the IRP and Wisconsin Center for Education Research, February 2006.

II. Measurement of Policies and Practices

The Integrated Resource Information System (IRIS), (with Alan Odden), Design Report, Wisconsin Center for Education Research, June 2007.

III. What Works? Evaluation of Policies and Practices

Evaluation of Milwaukee Public Schools' READ 180 Intervention: Impact and Fidelity of Implementation at Mid-Year (joint with Rachel Lander and colleagues), Wisconsin Center for Education Research, February 2009.

"Accountability and Performance in Secondary Education in the Milwaukee Public Schools," (with Brad Carl and Emily Huiping Cheng), Interim Report to the Council of Great City Schools, Wisconsin Center for Education Research, December 2008.

Accountability and Performance Measurement Challenges in Supplemental Educational Services Provision, (with Carolyn J. Heinrich), Report to the Milwaukee Public Schools, Wisconsin Center for Education Research, October 2008.

"Supplemental Education Services under No Child Left Behind: Who Signs Up, and What Do They Gain?" (with Carolyn Heinrich and Greg Whitten), paper submitted to Education Evaluation and Policy Analysis (currently being revised for resubmission), April 2008.

"A Value-Added Framework for Implementing and Evaluating an Intervention to Transfer High-Performing Teachers to Low-Achieving Schools," Technical Report, Wisconsin Center for Education Research, July 2007.

IV. Data-Informed Decision-Making and Systemic Reform

The Performance Management/Decision Support (PMDS) Project: Building Decision Support Capacity Through an Integrated Resource Information System (joint with Michelle Nate and Jeffery Watson), Design Report for the Milwaukee Public Schools, Wisconsin Center for Education Research, March 2008.

V. Data Structures, Data Quality, and Data Utilization

"Longitudinal Data Systems to Support Data-Informed Decision Making: A Tri-State Partnership Between Michigan, Minnesota, and Wisconsin," WCER Working Paper No. 2006-1, Wisconsin Center for Education Research, March 2006. (www.wcer.wisc.edu/publications/workingPapers/Working_Paper_No_2006_1.pdf)

VI. Professional Development to Support Data-Informed Decision-Making.

Value-Added 101: A Comprehensive Curriculum for Understanding and Using Value-Added Indicators to Improve School Quality (with Ernest Morgan and Lisa Geraghty), Wisconsin Center for Education Research, 2008.

"Value-Added Essentials," prepared for the Annual Conference of the Center for Education Compensation Reform, Washington DC, June 2008.

PUBLISHED RESEARCH

"Evidence and Decision-Making in Education System," (with Chris Thorn and Adam Gamoran), In Pamela Moss (Ed.). Yearbook of the National Society for the Study of Education, Volume 106, Number 1, 2007, pp. 340-361.

"Explaining Variation in the Effects of Welfare-To-Work Programs," (with David Greenberg, Charles Michalopoulous, and Michael Wiseman), Evaluation Review, Vol. 27, no. 4, August 2003, pp. 359-394.

"Comment on Searching for Indirect Evidence for the Effects of Statewide Reforms," Brookings Papers on Education Policy, 2001, pp. 218-223, 228-229.

"Value-Added Indicators: A Powerful Tool for Evaluating Science and Mathematics Programs and Policies," Issue Brief, Vol. 3, No. 3, 2000, National Institute for Science Education, University of Wisconsin-Madison, 11 pp.

"The Production of Mathematics Skills in High School: What Works?" in Mayer, Susan and Peterson, Paul (eds.), Earning and Learning: How Schools Matter, Washington, DC: Brookings Institution, 1999, pp. 169-204.

"Value-Added Indicators of School Performance," in Hanushek, Eric A. and Jorgenson, Dale W. (eds.), Improving the Performance of America's Schools, Washington, DC: National Academy Press, 1996, pp. 197-223. A modified version of this paper was published as" Value-Added Indicators of School Performance: A Primer," Economics of Education Review, Vol. 16, No. 3, June 1997, pp.283-301.

"Fair and Valid Indicators of School Performance" in Ladd, Helen F. (ed.), Holding Schools Accountable: Performance-Based Reform in Education, Washington, DC: Brookings Institution, 1996, pp.137 - 145; also published in The Report, Harris Graduate School of Public Policy Studies, January, 1997.

"Public School Choice in Minneapolis," (with Steven Glazerman), in Downes, Thomas A. and Testa, William (eds.), Midwest Approaches to School Reform, Proceedings of a Conference Held at the Federal Reserve Bank of Chicago, October 26-27, 1994.

Subject Matter Expert
MDE Policy Initiative 8: Value-Added Teacher Evaluation

Christopher A. Thorn

Education

Doctor of Sociology (with high honors), University of Bielefeld, Germany, 1994
- State Involvement in the Semiconductor Industry: The role and importance of consortia
M.A., Political Science, University of Wisconsin-Madison, 1990
M.A., International Relations, The Johns Hopkins University, 1987
B.A., (with honors) Economics and German Language, Indiana University, 1985

Current Research

Associate Director – Value-Added Research Center (VARC)
With VARC Director Rob Meyer, I lead the VARC in its mission to promote the development, application, and dissemination of value-added research methods to evaluate the performance and effectiveness of schools, teachers, programs, and policies on an ongoing basis, in order to facilitate the use of value-added performance indicators to monitor the performance of schools and hold them accountable for their performance. As a project leader, I work with multidisciplinary, geographically dispersed teams to support collaboration and distributed workflows. My work focuses on identifying and addressing gaps between operational information systems, value-added analysis results, and decision support systems at the state-, district-, and school-levels.

I currently lead a group that focuses on issues of measurement, data systems, data quality, and process redesign. This group includes colleagues at Vanderbilt University and its work supports the Center for Educator Compensation Reform, providing guidance and technical assistance to recipients of grants from the U.S. DoEd Teacher Incentive Fund Initiative.

Co-Principal Investigator – Chicago Community Trust Education Portfolio Evaluation
I led the first three-year evaluation of the Trust's education funding portfolio as they completed a 5-year giving initiative. Steve Kimball is taking over as the principal investigator as we propose a 4-year follow-on project to study the impact of the Trust's strategic grant making on the leadership of the regional schools of education and on departmental and area leaders in the Chicago Public Schools.

Research Grants

New York City Department of Education – Teacher Data Initiative ($1.1 million)
Implementing Classroom Value-Added Analysis
Co-PI with Robert H. Meyer – July 2009-June 2013
Chicago Community Trust ($500,000)
Implementing measures of institutional effectiveness
Co-PI with Steven M. Kimball – June 2009-May 2013
Chicago Community Trust ($25,000)
Proposal Planning Project: Designing measures of institutional effectiveness
Co-PI with Steven M. Kimball – January-May 2009
U.S. Dept. of Education – subcontract from Westat, Inc. ($2.4 million)
Center for Educator Compensation Reform
Co-PI with Robert H. Meyer – November 2007-October 2012
Institute of Education Sciences, U.S. Dept. of Education Subcontract ($300,000)

Longitudinal Data Systems to Support Data-Driven Decision-Making - Wisconsin Department of Public Instruction
Co-PI with Robert H. Meyer – February, 2006-January, 2009
Chicago Community Trust ($427,000)
A mixed methods evaluation of the Chicago Community Trust's Education Initiative
PI – June, 2005-September, 2008
UCSD/SDSC, NSF Subcontract ($304,000)
Digital Insight: A Prototype Digital Media Research System
PI – October, 1999-December, 2004
Carnegie Mellon University, NSF Subcontract ($131,000)
TalkBank: Multimedia Database of Communicative Interactions: Developing an open source model for video and audio annotation research tools
PI – December, 2000-August, 2002
Spencer Foundation Research Grant ($50,000)
Design of an Upgraded System of Testing, Accountability, and Data Analysis Supporting Systemic School Reform in the Milwaukee Public Schools
Co-PI with William Clune – April, 1999-April, 2000

Honors, & Fellowships

UW-Madison, School of Education, Distinguished Achievement Award – April, 2004
Deutsche Forschungsgemeinschaft Research Fellowship – 1993-1996
University of Wisconsin Big Ten Traveling Scholar Grant – 1991
German Academic Exchange Service Pre-Dissertation Research Grant – 1990
Fulbright Commission Collaborative Research Grant – 1989
Phi Beta Kappa, Indiana University Chapter – 1985

Employment History

University of Wisconsin-Madison, Wisconsin Center for Education Research
Director of Technical Services & Principal Investigator
Associate Scientist – August 1997 to Present
University of Wisconsin-Madison, Center for Education and Work
Associate Researcher – December 1995 to July 1997
University of Bielefeld, Bielefeld, Germany
Associate Investigator – June 1992 to May 1996
UW-Madison, La Follette Institute and Wisconsin Center for Education Research
Assistant Researcher – January 1992 to July 1996

University and Professional Service

UW-Madison, Authorization and Authentication Coordinating Team (ACT) – 2007-Present
Schools Interoperability Framework Association – Higher Education SIG – 2006-Present
UW-Madison, Wisconsin Institute for Discovery Program Committee – 2006-Present
UW-Madison, Automated Travel Reimbursement System Committee – 2005-2009
UW-Madison, Social Science Computing Cooperative, Steering Committee – 2005-Present
IFIP: IT in Educational Management Working Group (Secretary) – 2004-Present
UW-Madison, Wisc. Center for Education Research Director Search Committee – 2003-2005
UW-Madison, School of Education, IT Steering Committee – 1999-Present
UW-Madison, School of Education, IT Policy Advisory Committee – 1997-Present
AERA Standing Committee on Technology (Chair 2002-2004, 2005-2006) – 2001-2006

Professional Activities

Host and organize *Teaching Qualitative Methods* conferences. 2003, 2005, & 2007
Provide qualitative research design and qualitative software training – 1995-Present
Spencer Foundation – Information Systems & Strategy Consultant – 2003-Present
MacArthur Research Network on Teaching and Learning – Consultant to the Information Infrastructure System Project – 2002-2004
Regularly review proposals for the Spencer and MacArthur Foundations related to information educational technology, information infrastructure, and distributed governance
Review for various AERA journals

Professional Affiliations

American Educational Research Association (AERA): Educational Leadership and Evaluation
International Federation of Information Processing: IT in Educational Management (IFIP)

Publications - Books & Articles

Kraemer, Sara B., Christopher A. Thorn, and Jeffery G. Watson. 2008. Macroergonomics of Education Reform: A Framework for Transforming Merit-Based Educator Compensation Systems. Conference Proceedings of the Human Factors and Ergonomics Society 52nd Annual Meeting, September 22-26, 2008, New York, NY.

Thorn, Christopher A., Robert H. Meyer, and Adam Gamoran. (2007). Evidence and Decision-Making in Education Systems. In Pamela Moss (Ed.). *Yearbook of the National Society for the Study of Education*, Volume 106, Number 1, pp. 340-361.

Thorn, Christopher A. (2005). Systemic Reform Efforts in the U.S.: Role of Information Technology in Fostering Collaboration within New Partnerships. In Adrie Visscher, Javier Osorio, and Arthur Tatnall (Eds.). *Information Technology in Educational Management*, Dordrecht, Netherlands, Kluwer Academic Publishers.

Thorn, Christopher A. 2004. Building New Systems for Decision Support: Was there a baby in that bathwater? In Arthur Tatnall (Ed.). *Web Portals: the New Gateways to Internet Information and Services,* Idea Group Inc. Melbourne, Australia.

Thorn, Christopher A. 2003. Making Decision Support Systems Useful in the Classroom: Designing a Needs Assessment Process. In Ian Selwood, Alex Fung, and Tuulikki Paturi (Eds.). *Information Technology in Educational Management*, Dordrecht, Netherlands, Kluwer Academic Publishers.

Thorn, Christopher A. 2001. Knowledge Management for Educational Information Systems: What Is the State of the Field? *Education Policy Analysis Archives* 9(47).

Subject Matter Expert
MDE Policy Initiative 8: Value-Added Teacher Evaluation

Jeffery G Watson

Researcher
Wisconsin Center for Education Research
Value-Added Research Center (VARC)

PROFESSIONAL PREPARATION

University of Wisconsin - Madison	Industrial and Systems Engineering	Ph.D. 2005
University of Wisconsin – Madison	Cognitive Psychology	M.S. 1997
University of Texas – Arlington	Psychology	B.S. 1992

APPOINTMENTS

2006-Present Researcher, Value-Added Research Center (VARC), Wisconsin Center for Education Research (WCER), UW-Madison

2004-2006 Outreach Specialist, System-Wide Changes for All Learners and Educators (SCALE) Project, Wisconsin Center for Education Research (WCER), UW-Madison

2002-2004 Project Assistant, Strategies and Models for Improving Learning and Education, WCER, UW Madison

2000-2002 Project Assistant, Quality School Portfolio Project, WCER, UW Madison

1999-2000 Project Assistant, Study of Electronic Information Systems in Schools, WCER, UW

Prior to 1999 Various graduate assistantships; teaching, grading, and project work.

PUBLICATIONS

Watson, J. G., (in press). Capturing High Quality Student – Teacher Linkages from K12 Data Systems. Manuscript in preparation.

Watson, J. G., Kraemer, S., & Thorn, C. (2009). Data Quality Essentials for TIF Grantees. In US Dept of Education Publication: *Center for Education Compensation Reform Handbook*. From http://www.cecr.ed.gov/guides/dataQuality.pdf.

Watson, J. G, Smith, T. J., Kraemer, S., Halverson, R., Woodcock, A., (2009). Macroergonomics in education: On your mark, set, GO! Proceedings of the Human Factors and Ergonomics Society 53nd annual meeting (pp. 835-840). San Antonio, TX: Human Factors and Ergonomics Society.

Kraemer, S., Thorn, C., & Watson, J. (2008). Macroergonomics of education reform: a framework for transforming merit-based educator compensation systems. Proceedings of the Human Factors and Ergonomics Society 52nd annual meeting (pp. 1135-1139). Santa Monica, CA: Human Factors and Ergonomics Society.

Watson, J. G. (2008). Defining Data Quality for Decision Support Systems in Education. In: Breiter, A. et al. (Eds.) *School information systems and data based decision making*, Berlin et al., Peter Lang Publishing.

Watson, J. G. (2008). Data Quality Essentials for TIF Grantees. In US Dept of Education Publication: *Center for Education Compensation Reform Handbook*. From http://www.cecr.ed.gov/guides/dataQuality.pdf.

Halverson, R., Prichett, R. B., & Watson, J. G. (2007). *Formative Feedback Systems and the New Instructional Leadership* (WCER Working Paper No. 2007-3). Madison: University of Wisconsin–Madison, Wisconsin Center for Education Research. Retrieved [e.g., May 15, 2007,] from http://www.wcer.wisc.edu/publications/workingPapers/papers.php

Subject Matter Expert
MDE Policy Initiative 9: P-20 REsearch Portal of Minnesota

Alexandra Djurovich

Minnesota Office of Higher Education

EDUCATION
Master of Management and Administration 1997
Metropolitan State University Minneapolis, Minnesota

Bachelor of Arts — Zoology 1976
University of Wisconsin Madison, Wisconsin

SKILLS

- Expert in word processing, spreadsheet, and graphics software packages. (Microsoft Office Suite—Word, Excel, Access and Novell Office Suite—WordPerfect, QuatroPro, Presentations). Desktop publishing in QuarkXPress, and Corel Draw. Working knowledge of GIS.
- Proficient in conducting searches and retrieving data using standard statistical data software (SPSS), programming and operating at the VMS/VAX level, and editing simple COBOL programs. Ability to maintain and develop computerized databases.
- Able to communicate technical information to lay persons and professionals. Technical Writing Certificate from the University of St. Thomas, 2002.
- Knowledgeable in graphic design principles and the editorial/design/layout skills needed for producing professional quality newsletters and reports.
- Competent in the initiation, design, conduct, and presentation of policy-oriented research.
- Highly developed organizational and administrative skills.
- Communicate well with diverse groups of people.
- Able to multi-task and handle a variety of simultaneous projects.
- Proven team leadership skills in quality improvement processes to enhance organizational effectiveness.

EMPLOYMENT
Research Associate 1989 – present
Minnesota Office of higher education St. Paul, Minnesota

Research and publish policy oriented data on student enrollment. Solely responsible for collecting and compiling the state level unit record database containing over 300,000 annual student records. Continuously review and improve data collection and maintenance procedures enhancing timeliness, accuracy, and efficiency of data. Improve data and content published online. Use standard statistical computing applications to retrieve data from databases and prepare reports. Initiated a quarterly newsletter on enrollment and student financing topics for state leaders and postsecondary staff. Solely responsible for preparing, editing and writing a technical manual detailing instructions to postsecondary institutions for the collection of data. Serve as Minnesota's representative for the National Center of Education Statistics data collection effort called IPEDS. Serve as the agency's legal administrative rules staff. Improved communication methods with registrars, institutional researchers and other data providers at all postsecondary institutions. Coordinate various teams within the agency to enhance organizational effectiveness. Minnesota Minority Education Partnership Students of Color working group project contributor.

Administrative Assistant 1988 – 1989
Minnesota Higher Education Coordinating Board St. Paul, Minnesota

Coordinated and organized a series of statewide public meetings and seminars around a special higher education needs assessment project. Arranged meetings of various task forces and planning committees. Administrative assistant to both the Deputy Executive Director and Special Assistant to the Executive Director.

Administrator 1985 – 1987
Federation for Victorian Legal Centres Melbourne, Australia

Coordinated policy development on state level law reform campaigns. Coordinated the joint meetings and activities of the 22 legal aid centers. Responsible for developing close links with member centers and liaison with community organizations and government agencies. Interviewed new staff and supervised special project staff. Designed and wrote the Centre's first annual report. Completely responsible for providing resources for the 120 employees of the Federation. Improved communication by establishing the Centre's first library and initiated and co-edited a bimonthly newsletter. Improved marketing strategies for promoting the Federation's aims and objectives. Lead organizer for a 230-person national conference. Prepared budget reports for the committee of management. Managed all the bookkeeping and financial affairs of the Federation's annual operations.

AWARDS

- Recipient, Mission and Values Professional Award, Minnesota Higher Education Services Office, November 2003—for creating searchable online institutional database for agency internal use.
- Recipient, Achievement Award, Minnesota Higher Education Services Office, April 2000—for creating online agency employee manual.
- Recipient, Achievement Award, Minnesota Higher Education Services Office, September 1998—for simplifying and streamlining the expense request process.
- Recipient, Achievement Award, Minnesota Higher Education Services Office, May 1997—for taking on the challenge of totally revamping the Postsecondary Education Data Book.
- Recipient, Achievement Award, Minnesota Higher Education Services Office, July 1995—lead person in the creation of Insight newsletter and for improving and redesigning the Student Data Bases Manual.

MEMBERSHIPS

- Association for Institutional Research Member
- Association for Institutional Research of the Upper Midwest newsletter editor
- Association for Institutional Research of the Upper Midwest, Steering Committee, 1999–2001
- National Postsecondary Education Cooperative (NPEC) council member, 1999–2001

Subject Matter Expert
MDE Policy Initiative 9: P-20 RPM

Craig Finseth
Bio

Craig is currently the Enterprise Technical Architect for the State of Minnesota. In this role, he oversees technical policies and standards ranging from data center facilities to data, voice, and video networking to computers, operating systems and databases, to the web. Further, he prepares design specifications for new projects and oversees their implementation.

Before this post, Craig was a Systems Architect for the Office of Enterprise Technology's Network Division where he helped create the data network throughout its early stages as well as helped guide its growth over the years. Craig was also the main computer security resource for the state until the creation of a separate security group.

Craig also has experience with satellite television, both with U.S. Satellite Broadcasting and as a consultant to DirecTV. He is one of the key designers of the Advanced Program Guide and has a dozen patents on the technology used by that guide.

Craig was also one of the founding staff on the University of Minnesota's Network Services Group which over five years oversaw the development of the University's network from under 2,000 computers to over 25,000. Craig was also the key liaison to the Minnesota Regional Network (MRNet), which brought the Internet to much of the state.

Craig graduated from the Massachusetts Institute of Technology with degress in Computer Science and Engineering and Philosophy.

Craig has a variety of publications and one book, *The Craft of Text Editing*.

Craig is on the board of directors of the Minnesota Infragard chapter and is a founding member of the Internet Society.

Subject Matter Expert
MDE Policy Initiative 10: School to work

Oriane Casale

LEADERSHIP
Proven leader in team building, communications, research project design and implementation, and grant writing.

- Communications leadership includes the development and management of websites, newsletters, magazines and media relations.
- Portfolio of articles, research projects, media interviews and presentations available upon request.
- Eight years experience in the fields of economics and labor market information.

EXPERIENCE
Department of Employment and Economic Development, Labor Market Information (LMI)
Office: Assistant Director since April 2004, St. Paul; 1998 - present

Conduct, guide and manage data collection, analysis and reporting of labor market information. Includes definition of research problem and scope, study design and analytical strategy, data analysis and interpretation of results, written and oral presentation of results, evaluation of project.

Manage projects including employment projections, Job Vacancy Survey, Occupational Employment Statistics program, Employee Benefits Survey, *Minnesota Employment Review, Minnesota Economic Trends*, Labor Market Information website (www.deed.state.mn.us/lmi), M3D website (http://map.deed.state.mn.us/m3d) and other special research projects.

Develop and communicate labor market information to business leaders, educators, workforce and economic development professionals, media and the general public. Review and edit reports and documents prior to publishing. Evaluate success of office communications and outreach. Participate on agency, state and national committees.

Manage team of 15 analytical, technical and clerical staff. Assign responsibilities, train employees, conduct hiring, disciplinary action and performance evaluations, lead and motivate staff. Employ strong organizational skills to ensure staff productivity as well as accuracy and quality in all products and services.

Extensive knowledge of and experience using local, state and national economic data.

Minnesota Housing Finance Agency: Intern, St. Paul; 1997
Conducted evaluation of a state rental assistance program for welfare participants. Evaluation focused on program implementation, management and outcomes.

Phillips Early Learning Collaborative and **People of Phillips**: CURA Intern, Minneapolis; 1996 - 1997

Researched and reported on impact of new welfare legislation and barriers to accessing child-care in a high-poverty neighborhood.

1199\Employer Child-Care Fund: Program Developer, New York City; 1991 - 1995

Developed on-site and neighborhood based child care programs for hospital workers. Analyzed need and program feasibility, developed program and budget proposals, worked with real estate agents, hospital management and child care program directors to expand existing programs and locate sites for new programs. Developed promotional materials for programs including Fund newsletter.

EDUCATION AND TRAINING

Emerging Leaders Institute, Dept. of Administration, State of Minnesota; 2008 - 2009
Year-long leadership program, object of which is to assist Minnesota state agencies to meet succession planning goals. Curriculm included leadership, ethics and values, working with the media, effecitve presentations, team building and innovation. Competative application process.

Humphrey Institute of Public Affairs, University of Minnesota; 1995 - 1998
MA in Public Affairs recieved January 1998
Concentrations in Policy Analysis and Social Policy
Course work included Evaluation Methods, Research Methods, Participatory Policy Analysis, Quantitative Methods, Policy Analysis, Grant Writing

Eugene Lang College, New School for Social Research, New York City; 1988 - 1992

BA received May 1992
Dean's List 1988-1992

References provided upon request.

LEAD Staff Partner Agency
Office of HiGher Education

Meredith Fergus

Objective

Researcher specializing in higher education utilizing my experience in research and knowledge of large scale data systems, higher education policy, institutional operations, finance and student aid.

Summary of qualifications

Dynamic manager with knowledge of institutional research, student financing, higher education policy and the legislative process at the federal and state level.

Proven research project manager with a strong commitment to client and staff satisfaction; excellent skills in facilitation and organization of complex research projects. Superior knowledge of national datasets, database management, research methodologies and statistics.

Excellent oral and written communication skills, demonstrated report writing experience.

Professional experience

Minnesota Office of Higher Education, State of Minnesota 2008 – present
Policy Analyst

Prepare financial projections and other analyses of the Minnesota State Grant and other state financial aid programs to support policy discussion and decisions with regard to student financial access and choice. Develop models to project future spending for consideration in appropriations and program management decisions. Create clear, written documentation of methodologies used in state financial projections and analyses. Maintain relationships with campus and legislative partners. Maintain and monitor the quality of research-related databases.

Provide written material evaluating policy proposals in terms of impact on students, policy coherence and political viability. Partner with and respond to requests from executive branch and legislative and external staff regarding policy development and research.

Minnesota Private College Council, Fund and Research Foundation 2005 – 2008
Assistant Director of Research and Policy Development

- Design and manage data warehouse of student demographic, enrollment and financial aid data. Analyze data to assess student price responsiveness, financing trends and retention patterns.

Perform regular data collection, analysis and reporting functions including annual surveys of admissions, enrollment, graduates, economic activity and financial aid. Maintain relationships with campus research partners. Maintain and monitor the quality of research-related databases.

Provide research-based information in support of communications, legislative and fundraising functions. Analyze cost and enrollment impacts of state and federal policy proposals. Keep informed of and skilled at mining national datasets for research supportive to member relations.

Applied Policy Research, Inc. 2001 – 2004
Research Analyst

Conduct higher education research activities related to prospective student analysis, competitor analysis, enrollment, retention, tuition discounting and financial aid.

Coordinate and problem solve database construction, testing and maintenance.

Analyze data and interpret results of large databases. Prepare reports and technical documentation of financial aid outcomes for college presidents, administrators and governmental reporting.

Education

2007. University of Minnesota, Humphrey Institute of Public Affairs, Minneapolis, Minnesota
Masters of Public Policy, Advanced Policy Analysis

Coursework: Regression Analysis, Advanced Statistical Modeling, Applied Economics, Cost Benefit Analysis

1998. University of Minnesota, College of Human Ecology, Minneapolis, Minnesota
Bachelors of Science, Family Social Science

Technology Skills

Microsoft Office XP/Vista including Access, Outlook, Excel, Power Point, Publisher, Word
SPSS 16.0 (Regression, Clementine Data Mining), SQL, Visual Basic Applications

Project Summary

Economic Trends Impacting Higher Education

- Prepare reports discussing price indexes, unemployment, demographic and educational projections, trends in pricing and financial aid, and proposed changes to federal and state policy.

Student Unit Record Databases

- Design and manage data warehouse of student demographic, enrollment and financial aid data. Analyze data to assess student price responsiveness, financing trends and retention patterns.

Retention and Degree Completion as a Function of Student Borrowing

- Conduct meta-analysis of financial aid research about student loan aid and cumulative borrowing, and its impact on student retention and degree completion.

Tuition Discounting / Enrollment Management

- Student responses to financial aid offers are aggregated by income/financial need and academic variables then compared against tuition discounting and enrollment goals with recommendations for financial aid and admissions responses.

Institutional Cohort Analysis / Retention Analysis

- Assign students to cohorts by starting term and degree status. Cohort data is aggregated across multiple years to track students' progress to degree completion including detailed analysis of differing retention rates by gender, academic measures, race/ethnicity, income and financial aid.

LEAD Staff Partner Agency
Office of Enterprise TEchnology

JAMES G. STEINWAND – CISSP, CISA, CISM, RCDD

Profile

Extensive security and data communications experience with government, international, national and local firms. Particular expertise and skills in:

- Management of mainframe and identity management security groups for state government
- Consultation on creation of new security infrastructure organization
- Internet, internal and physical security practice
- Pre-sales technical support and technical account management
- Security architecture design and implementation
- Security management/project management
- Data center design and construction for financial institutions
- Technical and business relationship building with staff, management and clients.

Professional Experience

Manager, Access Control – Office of Enterprise Technology, State of Minnesota 2003 to present

- Manage mainframe and access control security groups for state government
- Lead development of an enterprise Identity and Access Management for state government
- Assist in the building of new state-wide security office
- Lead development and implementation of security policies and procedures in response to various audits and reviews
- Created a high-performing team for access control systems and services
- Co-chair for MS-ISAC Legislative Workgroup

Security Consultant – Private Practice – 2003

- Managed the technological split of a large US bank and brokerage firm
- Researched existing business and security architecture and created new, separate architecture resulting in two totally separate companies

Vice President of Audits - Data Security Auditors – 2002-2003

- Program manager of multiple simultaneous customer audits
- Continuously develop knowledge of security industry technology
- Develop process and procedures for start-up company
- Develop and refine audits for Internet, networks, web, vulnerability/risk assessment, penetration tests and policies/procedures, gap analysis for HIPAA, Gramm-Leach-Bliley Act

Senior Sales Engineer, Security Products - Nokia Internet Communications – 2001

- Established successful relationships with customers at all management levels
- Demonstrated expertise in firewall, IDS, virus protection, load balancing, VPN, UNIX
- Wrote white papers detailing operational aspects of new Nokia products
- Worked with customers to develop the appropriate security solution for their unique situation

Senior Security Engineer, Product Development - Qwest Communications - 1996-2001

- Served as technical security resource to sales and marketing teams within company
- Researched, analyzed and developed new security-related products and services
- Determined operational feasibility and security policy analysis
- Wrote white papers for hardware, software and services that provide security for use by internal operations or for resale by Qwest
- Provided security awareness training to internal organization
- Provided technical documentation for solutions including Intrusion Detection and Internet Scanning services, firewalls, VPNs and e-commerce security

Senior Security Engineer, Internet Operations

- Managed development of Managed Firewall Services (MFS) team of six from product inception
- Provided expert product knowledge of MFS to Internet Operations teams
- Provided consulting services to MFS customers regarding WAN, LAN and security configurations
- Worked with Product Manager in design and acceptance phases of MFS product
- Presented Internet and personal security overview to international audience at BICSI conference and to sales teams and customers nationwide
- Developed process and procedures documentation for Managed Firewall Service
- Developed process and procedures for identifying and responding to security incidents and acceptable use polices (AUP) violations, guided creation of acceptable use policies
- Provided top tier technical support to customers, sales, product development and internal team members
- Provided training and mentoring to internal and external US WEST teams as appropriate for security-related issues
- Wrote and presented instructor-led training classes

Project Manager - Sterling Electric Construction - 1994-1995

- Managed several project teams of up to ten technicians each, simultaneously
- Designed, estimated and responded to requests for proposals for copper and fiber optic computer cabling systems
- Managed complete cabling projects using project management methodologies
- Obtained RCDD certification as member of Building Industry Consultive Services International (BICSI). Former member of Project Management Institute (PMI)

Project Manager - Alternative Resources Corporation (for United HealthCare) - 1993-1994

- Managed voice and data infrastructure construction of new facilities
- Designed and implemented computer and PBX switching rooms, including security systems
- Installed and configured Cisco routers, Fibermux hubs and Unisys and HP proprietary systems
- Maintained LAN and WAN environments in several facilities and supported remote locations
- Coordinated MAC (move, add, change) activity team of three in several facilities

Kline Volvo – Salesman - 1992-1993

- Enhanced customer service skills while selling Volvo automobiles

Self Employed – Network Infrastructure Consultant - 1992-1993

- Influenced local government cabling related issues during remodeling project
- Designed data center for local medical company

Norwest Information Services – Project Manager/Engineer - 1984-1991

- Accomplished the design, implementation and project management of copper and fiber optic cabling systems in Norwest Center and Norwest Operations Center
- Designed and implemented high speed, high bandwidth connection between Norwest Center and the Norwest Operations Center
- Designed voice and data connectivity for over 3000 people in downtown Minneapolis
- Designed fiber optic metropolitan area network in downtown Minneapolis, connecting six buildings and 500 people
- Designed, implemented and managed construction of six computer operations centers in Norwest territory, including 6,600 square foot facility in Norwest Center
- Supervised Network Analysts team, who designed and implemented leased line SNA network for Norwest Bank, including ATM (Automated Teller Machines) network
- Implemented on-line banking system across seven state territory

TRW Customer Service Division – Field Engineer - 1978-1984

- Managed field engineering team for South Dakota and SW Minnesota
- Installed and maintained Point-of-Sale (POS) systems for Sears, Cenex, Knox Lumber, County Seat and others
- Installed and maintained on line banking system for Norwest Banks
- Installed and maintained ATM networks for Norwest and First Bank Systems

U.S. Air Force, Ssgt

- Managed Electronic Countermeasures maintenance technicians as flight line and shop supervisor

Education

- BA, Information Security, Metro State University, St. Paul, MN

Licenses/Awards/Certifications

- Certified Information Systems Security Professional – CISSP
- Certified Information Systems Auditor – CISA
- Certified Information Security Manager - CISM
- Registered Communication Distribution Designer – RCDD
- FCC First Class Radiotelephone License
- Member, Board of Directors, InfraGard, Minnesota Chapter
- Member Information Systems Audit and Control Association – ISACA

LEAD Staff Partner Agency
Department of Employment and Economic Security

Steven C. Hine

EDUCATION
Ph.D. (1986) and M.A. (1984) in Economics with specializations in econometrics and statistics, macroeconomics, and monetary theory and policy, Washington State University, Pullman, WA.

B.S. in Economics (1980), Bemidji State University, Bemidji, MN.

EMPLOYMENT HISTORY
Research Director, Labor Market Information Office, State of Minnesota Department of Employment and Economic Development, St. Paul, MN, 2003-Present

Adjunct Lecturer, University of Minnesota – Carlson School of Management, Minneapolis, MN, 2007-Present

Assistant Research Director/Senior Economist, State of Minnesota Department of Economic Security, St. Paul, MN, 1999-2003

Adjunct Assistant Professor of Economics, University of St. Thomas, St. Paul, MN, 1999-2003

Senior Employment and Training Specialist, State of Minnesota Department of Economic Security, St. Paul, MN, 1997-1999

Assistant Professor of Economics, Lyon College, Batesville, AR, 1994-1997

Assistant Professor of Economics, State University of New York at Binghamton, Binghamton, NY, 1986-1994

Visiting Assistant Professor of Economics, Whitman College, Walla Walla, WA, 1991-1992

EXPERIENCE
Responsible for directing 35-member research staff involved in the collection, production, analysis and dissemination of Minnesota's official employment statistics. Serves as the state's designated Cooperating Representative under agreement between the state and the US Department of Labor's Bureau of Labor Statistics. Responsible for meeting the contractual obligations necessary to produce state and local employment statistics and provide state information to the national system. Responsible for proper management of $3 million annual budget.

Serves as the Department of Employment and Economic Development's spokesperson at legislative hearings and other public forums, including through the media, on issues related to economic performance. Directs the presentations of other employees from within the LMI Office at various public events.

Conducts and directs research and analysis on labor market and general economic conditions. Resulting information is provided to policy-makers, businesses, other governmental agencies including those in higher education, intra-departmental program managers, local workforce development entities, and the general public.

Frequent participant on state and national workgroups and councils involved in the development of new and enhanced informational products and services.

Engaged in research into the empirical and econometric significance of alternative macroeconomic models of the business cycle and their implications for policy. Research has led to the publication of articles in numerous national and international peer-reviewed professional journals.

Extensive experience in design and instruction of courses with quantitative, problem-solving, and decision-making content. Courses included statistics, econometrics, mathematical economics, time series analysis, and forecasting, as well as economic principles, macroeconomics, money and banking, international economics, financial institutions, and political economy of current issues. Level of course content ranged from freshman-level courses to Ph.D. seminars.

SKILLS

Frequent public presentations and over 12 years college-level teaching experience in a broad range of classroom environments. Proficiency at presenting complex material in clear and comprehensible terms appropriate to various audiences.

Extensive experience in writing research-based papers suitable for publication in outlets ranging from peer-reviewed professional journals to periodicals designed for the general public.

Strong interpersonal skills developed through supervision of research staff and through advising, mentoring, and tutoring of students.

Strong quantitative abilities, including statistical analysis, data management and computer applications, stemming from educational background and extensive experience in empirical analysis and research.

Familiarity with private and public university environment and governance, and with state legislative process.

OTHER RELATED EXPERIENCE

Reviewed and evaluated numerous submissions to professional journals and contributed to editorial decisions through written reviewer's reports. Also reviewed and proofread numerous textbook manuscripts in advance of their publication and improved quality of texts through critical comments provided to publishers.

Chair of Admissions and Financial Aid Committee, Lyon College. Chaired committee and participated in college governance decisions regarding establishing and maintaining standards for admission and for awarding of scholarships. Led committee through review of sub-standard applications and consideration of student appeals of actions taken as result of scholarship and/or academic policies of college.

Director of Student Seminar Series, Lyon College. Initiated, planned, developed, and conducted series of seminars designed to present topics of interest to students. Arranged outside speakers, and organized, scheduled, and presented six seminars per semester. Topics included career development skills and career options, current economic and political events, and demonstrations of use of the internet.

Director of Graduate Admissions, State University of New York at Binghamton, 1988-1991. Recruited graduate students, evaluated applications to graduate program, set standards for admission, assisted department chair in allocation of assistantships, and supervised necessary correspondence. Successfully recruited students from over 15 foreign countries, including the first students from the former Soviet Union to enroll in the graduate program.

LEAD Infrastructure Staff
MDE – Quality Assurance

CAROL A. FREIHAMMER

SUMMARY

I have over 16 years of project management and quality assurance experience in IT and Software Development. My career began at Bankers Systems, Inc. (Wolters Kluwer Financial Services), a leading compliance solutions provider for the financial services industry. The projects I was involved in included DOS and Windows products, web authentication software, PeopleSoft, SAP and SalesForce.com. During this time, I worked on various projects in different roles throughout their life cycles. These roles included quality assurance, project management, and leadership roles.

I have also worked as a consultant for Spherion Technology and as a project manager/quality assurance lead for the Minnesota Department of Education. I obtained my Project Management Professional (PMP) certification in 2003 and it remains current.

WORK EXPERIENCE

5/2006 – 12/2007
Wolters Kluwer Financial Services
6815 Saukview Drive
St. Cloud, MN 56302

Software Development Project Manager

- Managed several lending and deposit software applications
- Identified and managed project risks
- Planned and coordinated project tasks, schedules and communications
- Tracked and managed project budget
- Promoted consistent processes across core applications
- Worked with project teams to resolve conflicts

11/2004 – 5/2006
Minnesota Department of Education
1500 W Highway 36
Roseville, MN 55113-4266

Develop a Quality Assurance Team for the IT Division

- Establish a dedicated QA team in an organization that had never experienced formal testing
- Create testing processes and procedures
- Promote QA methodology across IT division
- Present QA methodologies to end users
- Train existing employees transitioning to the QA team
- Coach and mentor QA team in testing methodologies/practices
- Manage QA resources across projects
- Hands-on participation in test planning, scripting, and test execution

12/2000 – 11/2004
Bankers Systems, Incorporated
6815 Saukview Drive

St. Cloud, MN 56302

SalesForce Automation for Regional/National Market (Project Manager)

- Researched multiple software solutions
- Participated in search for qualified implementation consultants
- Participated in review and negotiation of contracts
- Arranged requirements interviews for 40+ BSI subject matter experts
- Coordinated product demonstrations
- Engaged end users in all project phases to insure we selected an application that met their needs
- Identified and managed project risks
- Managed project team and schedules
- Coordinated project tasks and communications
- Successfully implemented SalesForce.com within budget and within 3 weeks of our planned implementation date

Customer Portal (Project Manager)

- Researched and selected a qualified portal technology consulting partner
- Engaged end users in all project phases to insure we understood customer portal project requirements
- Identified and managed project risks
- Managed project team and schedules
- Coordinated project tasks and communications

SAP (Project Manager, post-implementation)

- Managed project team and schedules
- Established and coordinated the New Product Prioritization Team – a team whose mission was to prioritize new product requests in SAP
- Implemented the Service Request System for the SAP project, enabling numerous spreadsheets of issues to be combined into one tracking system
- Coordinated the first Support Pack Update after the initial SAP implementation

PeopleSoft (Project Manager)

- Co-led this effort with the IT Director and the Supportline Manager
- Managed the project plan and resource coordination
- Managed project budget and consulting costs

SAP (Testing Coordination)

- Taught functional users how to plan and write test cases
- Coordinated testing for a large SAP implementation
- Communicated testing status/progress

Compliance Headquarters (CHQ)– 2/15/01-7/27/01 (Project Manager)

- Managed the IT project team tasks related to the creation of the CHQ web site

Web Authentication, Authorization and Access Control– 2/05/01-12/01/02 (Project Manager)
Selection and implementation of an application to secure our web sites:

- Identified and managed project risks

- Managed project team and schedules
- Coordinated requirements gathering sessions and product demos with CCH

5/1998-5/2000:
Spherion Technology – On Assignment at Deluxe Corporation
1005 Gramsie Rd.
Shoreview, MN 55126
As part of the project management team representing testing on the Manufacturing Order Management System (MOMS) project, I was responsible for the following:

- Estimating testing project and determining resource requirements
- Participating in interviewing and hiring testing resources
- Coordinating all testing tasks
- Coordinating inspections of deliverables
- Creating, and maintaining testing budget documentation for management
- Status reporting
- Implementing standards and procedures for creating test plans and test cases
- Implementing procedures for gathering test requirements
- Working as part of the project management team to create an overall project plan
- Designing and maintaining a defect tracking database
- Test execution (system, user acceptance and performance)
- Coordinating defect review meetings
- Conflict resolution

3/1991-5/1998:
Bankers Systems, Incorporated
I began my career at BSI as part of the Quality Assurance Department as a testing analyst on various lending products. Throughout the years my responsibilities expanded to team lead roles on LPLP and Rembrandt. I eventually assumed a QA supervisor position prior to leaving BSI to pursue consulting.

EDUCATION
Bachelor of Science (Cum Laude) – St. Cloud State University, St. Cloud, MN – 1990
Major: Business (Finance) Emphasis: Insurance
Numerous testing, project management and other professional seminars/trainings

CERTIFICATIONS

- Project Management Professional – Project Management Institute – 2003
- Certified Software Test Engineer – Quality Assurance Institute – 1998

LEAD Infrastructure Staff
MDE – Data Base Administrator

Monte Grosso

Summary of Skills

- TSQL programming (scripts, stored procedures, views, triggers, UDFs)
- MS Reporting Services report development
- Relational database design (Embarcadero ER Studio)
- ETL process design and support (Data Transformation Services)
- VB and VBA development, including classes and COM components
- MS Access/Jet/DAO development
- ADO development

Professional Certi ications

Microsoft Certified Solution Developer (MCSD)
Certified Public Accountant (CPA)

Experience

State of Minnesota – Department of Education (Contract)

Data Warehouse Developer / ETL Developer, January 2007 – Present

- Developed dimensional logical model for data warehouse project.
- Developed custom ETL scripts and stored procedures in TSQL for transforming relational data into dimensional schema.
- Mentored other developers regarding use of TSQL and Warehouse design decisions.

Patterson Companies Inc.

Database Developer / DBA, January 2005 – November 2006

- Ported distribution center reporting system from MS Access to SQL Server / Reporting services, including reverse engineering database design from existing reports, and all needed TSQL Development.
- Designed TSQL based application used for preparation of the annual budget for the largest operating division (Patterson Dental).
- Advanced stored procedure design (TSQL).
- Advanced ETL development using Data Transformation Services (DTS).
- Trained high-level managers and executives in OLAP terms and technical concepts, so that they could effectively evaluate 3rd party software solutions.

Northwestern Travel (acquired by TQ3Navigant)

Senior Data Analyst / DBA, October 2001 – January 2005

- Shared responsibility for ad-hoc reporting with a team of database professionals.
- Developed and implemented database design for the Agent Incentive Management System (AIMS).
- Developed SQL stored procedures to implement AIMS reports and application functionality.
- Implemented exception based reporting system for travel bookings, helping travel agent supervisors identify errors in booked reservations before they are visible to the customer.
- Supported the data warehousing process and environment, including investigation of data integrity issues and errors identified by business customers, bug fixes, and troubleshooting errors in ETL processes.
- Implemented migration of the data warehouse and data related applications from SQL Server 7.0 to SQL Server 2000.
- Helped troubleshoot, identify, and analyze differences in key metrics across all reporting processes.
- Supported 3rd party database applications, handled correspondence with application vendors on database related issues, ensured smooth implementation of vendor provided upgrades, and managed custom database modifications.
- Automated the crisis management/alert process by creating a DTS program capable of automatically extracting all in process and future itineraries for each traveler and generating a report ready to be sent to each customer contact.

Wells Fargo – Card Services Division (Contract)

Database Architect, August 2001 – October 2001

- Re-designed existing database for card services workflow application (Merlin). The application is used during an ATM network conversion or new installation to streamline paperwork and track the progress of the network implementation plan through its various phases.
- Incorporated additional features into the database per requirements specified by end users and project analysts.
- Worked closely with company IS staff to devise a plan for conversion of data from the legacy system.
- Assisted as needed on database security and other technical issues.

Hennepin Community Corrections – Research and Systems Technology Division (Contract)

ETL Developer, May 2001 – August 2001

- Coordinated the transfer of juvenile offender data from the JUVIS system to the Minnesota state department of corrections as part of the state wide Crimnet initiative.
- Analyzed state interface requirements and coordinated activities with state personnel at various stages.
- Formulated a plan for the interface tailored to the specific systems and technologies employed by the county.
- Programmed the interface using Microsoft SQL Server tools and scripting technologies, including, SQL, DTS, and VB Script.
- Documented the project and program objectives, interface guidelines, functional requirements, inputs, outputs, and procedures in HTML help file format.

AT&T – Local Network Services (Contract)

SQL Server DBA, August 2000 – April 2001

- Implemented SQL Server to meet customer demands for ad-hoc reporting and business analysis.
- Created tables, views, and stored procedures to support the data warehouse and automate the retrieval, scrubbing, and de-normalization of production data.
- Managed migration from SQL Server 7.0 to SQL Server 2000, implemented SQL Server and Windows NT service packs, and hot fixes.
- Trained and assisted other developers with SQL Server issues relating to their VB, VBA, MS Access, DTS, and ASP development projects and applications.
- Heavy programming with the DAO and MS Access object models.
- Worked closely with private line business analyst to develop daily, weekly, and monthly production reports tailored to the needs of upper management for evaluation of the private line product.
- Worked with business unit heads to develop formulas, ratios, and other standards for the reports to aid upper management in assessing the effectiveness of the various business units and product lines.

Key Accomplishments

Enterprise Performance Management (EPM) software implementation: Patterson Companies
Patterson companies finance department used a custom written Lotus Notes based collaboration program to route budget related spreadsheet templates for approval and revision. Eventually, the Lotus platform could not scale out to the number of users in the environment, and had to be replaced. Also, there were other more frequent and time intensive forecasting processes that needed to be automated. I was part of a team of people charged with finding a suitable EPM software package to streamline the budgeting, forecasting, and strategic planning processes. I was directly responsible for documenting the current business process, conducting vendor interviews, proof of concept testing, RFP requests, and training management regarding the high level technical concepts needed to evaluate each of the software packages.

Distribution Center Operations (DC Ops) Reporting System: Patterson Companies
The DC Ops system produced a package of 23 reports used by DC management to monitor the effectiveness and efficiency of the Patterson DC network. The reports combined operational data (i.e. packages shipped / packages received) with hours worked, and errors committed, to produce a one page scorecard with more detailed reports available for investigation if warranted. The application was a piecemeal collection of dozens of MS Access databases, which formed a complex web that eventually became too difficult to maintain, and needed to be rebuilt from the ground up. I developed the database design by reverse engineering the existing reports and incorporating needed improvements based on interviews with business users. I was also responsible for porting all of the existing reports from MS Access to SQL Server Reporting Services. I directed the activities of other groups within IS, and took the responsibility for creating project documentation and keeping business users and stakeholders up to date on the project.

Agent Incentive Management System (AIMS): Northwestern Travel (acquired by TQ3Navigant)
The Agent Incentive Management System applied a point-based scheme to different categories of travel itineraries (domestic, international, etc.) in order to calculate travel agent bonus compensation. AIMS was an MS Access application developed in the late 90's, and had become outdated in terms of both technology and flexibility to implement new business requirements. I was part of a team which rebuilt the application for the SQL Server platform.

Education

Colorado Christian University/Metropolitan State College, 1992-1996, B.S. Accounting.
Coursework: statistics, financial accounting, taxation, business law, macroeconomic and microeconomic theory, management theory, business communication, structured programming, and microcomputer fundamentals.

PROFESSIONAL SKILLS

Languages	Java, C/C++, XML, HTML, Javascript, SQL, Perl, Visual Basic
Internet Technologies	Java Server Faces, Java Servlets/JSP, Applets, LDAP, SOAP, CGI, ASP
Application Servers	Tomcat, WebLogic, WebSphere, Sun ONE
Operating Systems	MS Windows, Solaris, HP-UX, Linux, AIX, IRIX

PROFESSIONAL EXPERIENCE

Minnesota Department of Educa on, Roseville, MN ***July 2006 to Present***

IT Specialist Level 5

July 2006 – present: Java Web Development Group

- As technical lead, designed and developed Java Server Internet applications using JSF, JSTL, Hibernate, and other frameworks for processing licensing applications and testing data online.
- Maintained existing Java Server applications and a Visual Basic image scanning application to support the current educator licensing system.
- Researched, prepared, and delivered a presentation to the department recommending practical web application improvements to satisfy Americans with Disabilities Act (ADA) requirements.
- Authored functional specifications, UML diagrams, and related project lifecycle documentation.

UGS Corpora on, Arden Hills, MN ***September 2002 to July 2006***

Senior Software Engineer

March 2005 – July 2006: Teamcenter Security Services Development Group

- Led a four-person team to design and develop an LDAP authorization synchronization system.
- Performed requirements analysis and functional design for several projects including a new licensing architecture and a stateless single sign-on architecture.
- Maintained and supported the existing C/C++ and Java-based licensing infrastructure.
- Authored functional and design specifications and other project lifecycle documentation.

September 2002 – February 2005: Teamcenter Enterprise OS/Networking Development Group

- Led and helped train a six-person development team to integrate a new Teamcenter file management architecture with Teamcenter Enterprise.
- Developed an ActiveX control using Visual C++ for file transfer and other OS services.
- Developed and maintained Java applets, servlets, and JSPs for file transfer and other OS services.
- Maintained low-level communications-layer C code in Teamcenter Enterprise.
- Maintained a Java-based SOAP web service for registering Teamcenter applications.
- Administered Oracle, WebSphere, WebLogic, and Teamcenter test environments for unit testing.

- Authored functional and design specifications and other project lifecycle documentation.

Ensodex, Inc., Arden Hills, MN ***March 1998 to August 2002***

Senior Developer Specialist

July 2001 – August 2002: EDS PLM Solutions Quality Assurance Group, Arden Hills, MN

- Developed, performed, and recorded tests on Teamcenter Engineering and Catalog products.
- Administered Oracle, WebSphere, Teamcenter PDM, & CAD test environments for QA testing.

June 1999 – June 2001: Ford Motor Company CAD/CAM/CAE PIM Group, Dearborn, MI

- Developed C3P web packaging and deployment infrastructure using C-shell, Perl, & CGI scripts.
- Maintained Java applets and C server code for the C3P Visualization and Catalog projects.
- Delivered presentations on ClearCase SCM, Six Sigma, and C3P web packaging infrastructure.
- Authored functional and design specifications and other project lifecycle documentation.

November 1998 – May 1999: Metaphase OS/Networking Development Group, Arden Hills, MN

- Developed a software code review program in Perl for the ClearCase SCM rollout.
- Maintained low-level communications-layer C code in Metaphase.

August – October 1998: Lockheed Martin Missiles & Space Division, Sunnyvale, CA

- Developed Java applets to update their online change management system.

March – July 1998: Metaphase OS/Networking Development Group, Arden Hills, MN

- Maintained low-level communications-layer C code in Metaphase

Com Squared Systems, Inc., Burnsville, MN ***February 1994 to March 1998***

So ware Developer

September 1996 – March 1998: Internet Development

- Developed a CGI web-based document retrieval application using C++ on UNIX.
- Developed an internal web-based error management system using VB and Active Server Pages.
- Developed a Java application prototype connecting to a UNIX database server using CORBA.
- Authored a paper on Document Management and the Internet that was published in the Minnesota AIIM regional newsletter and reprinted in other publications.
- Prepared and delivered a presentation on Document Management and the Internet at the Minnesota AIIM regional conference, January 1997.

February 1994 – September 1996: Windows Development

- Developed the scanning, display, bar code recognition, file storage and retrieval modules for a client-server document imaging system using Visual Basic and C++.
- Led the requirements and design team for the new 32-bit Windows document imaging system.
- Developed an ActiveX control in Visual C++ for document retrieval and imaging.
- Delivered presentations to clients and coworkers on new product releases and technologies.
- Served on standards team to establish project lifecycle documentation using Booch's methods.
- Authored functional and design specifications and other project lifecycle documentation.
- Authored user manuals, procedure manuals, and other training documentation.

Professional Data Analysts, Inc., Minneapolis, MN ***June 1990 to January 1994***

Programming Consultant

- Developed a multi-user data entry system in Visual Basic for a medical center hotline.
- Developed data management, invoicing and reporting systems using R:BASE SQL and dBase IV.

- Developed a mark-sense forms scanning and verification application in Turbo Pascal.
- Developed a stock-portfolio analysis program in C for a financial forecasting corporation.
- Developed the command parser user interface in C++ for a Windows data mining application.

EDUCATION

University of Minnesota Ins tute of Technology, Minneapolis, MN

Bachelor of Science: Computer Science
Graduation Date: July 1992

COMMUNITY INVOLVEMENT

St. Paul's United Church of Christ

Organizing collection for area homeless shelters: 2003-2004
Teaching Sunday School and organizing plays: 2002-2003

Toastmasters Interna onal

Helped start a Toastmasters Club at Ford Motor Company: January 2001
Earned CTM at Four Seasons Toastmasters: July 1999

Pilot Knob Elementary School, Eagan, MN

Volunteer Computer Skills Instructor 1996-1997

LEAD Infrastructure Staff
MDE – Senior Architect

Gene Kimball

Professional Summary
Seeking a Lead Architect, Technical Team Lead position in a fast-paced team environment. My strong technical capability enhanced by excellent project management, interpersonal, and presentation skills has been instrumental on a multitude of successful projects. In addition, my thorough knowledge of the sales cycle, customer - focused attitude, leadership by example, contagious enthusiasm, and deep understanding of large company issues have proven to be valuable assets.

Experience
Minnesota Department of Education **Lead Developer / Team Lead**
5/06 – Present
Working as a lead developer on a new development team responsible for creating a web based Teacher Licensing system. The goal of the project is to allow teachers in the state to apply and renew their teaching licenses over the internet. Currently the project has shortened the time it takes to receive a license from months to weeks. Included in the project is a second system that allows the school districts the ability to record continuing education hours for teachers. Involved with all aspects of the development lifecycle. Provide leadership, design and guidance on projects to maintain a consistent strategy for developing web based applications with an emphasis on security. Provide technical assistance and mentoring to members in the division.

EDS / UGS **Project Manager / Technical Team Lead Teamcenter Integrator / Global Services**
6/04 – 5/06
Served as project manager for multiple teams of up to thirteen people developing a J2EE framework for integrating applications to various backend systems and multiple integrations using the framework. Duties include:

- Providing project planning for multiple releases of the software.
- Determining the scope and number of projects for each release.
- Providing a consistent and deliverable vision for the team and customers.
- Balancing developers' time with multiple concurrent projects
- Mitigating customer crises.
- Providing regular progress updates to upper management.

- Conducting performance reviews.
- Creating prototypes including design, coding and testing.

Under my leadership all projects have been produced on time with overall defects that are among the lowest in the division.

EDS **Group Manager -**
Application Integration
10/02 – 6/04

Promoted to leadership position for a newly formed group. Managed four concurrent projects including the Catalog Interface. Acted as the focal point for understanding customer requirements and directed project implementation. Worked with product management, sales, services and other development management staff to define and enhance the industry leading Product Data Management system (Teamcenter Enterprise formally Metaphase). Completed all four projects, with last minute requirement changes, on or before due dates, with low QA defects. Our group's mission was to enhance Teamcenter Enterprise by integrating other EDS applications into a seamless suite.

EDS **Software Engineer -**
Consultant
8/02 – 10/02

Became employed by EDS and continued as Technical Lead, Architect and Developer for the Catalog Interface application. Produced two new releases of the Catalog Interface under aggressive timelines and last minute contract changes, within budget and on time.

EDS **Ensodex Senior Developer**
Specialist
4/01 – 8/02

Served as Technical Lead and Architect for the Catalog Interface application. Before becoming involved this was a twice failed project with a hostile customer that was threatening to cancel the 1.5 million dollar contract. The application allows the retrieval of product information from a product data management system and a supplier relationship management system (SRM), and moving data to a CAD package. This was accomplished through a web based UI. Once involved, re-scoped and prioritized customer requirements, prepared new architecture plan, produced project plans, and directed the implementation. Created prototypes to validate design and obtained customer signoffs. Worked with customer interfaces to anticipate, prioritize and resolve issues. The project was delivered to the customer ahead of schedule and was piloted to 8500 users. After six months in production only two issues were reported by the customer.

Boeing **Ensodex Senior Developer**
Specialist
3/00 – 4/01

As a sub-contractor through SDRC, served as Technical Team Lead, Implementation Decision Maker, Customer Liaison and Developer for Boeing's Automated Dual Bill-Of-Materials J2EE application based on SDRC's Accelis product and IBM's WebSphere. This application automatically synchronized the bill-of-materials between the PDM System (Commercial Airplane Design) and the ERP System (Commercial Airplane Manufacturing). Key player in SDRC's presales process. Instrumental in developing and presenting the application prototype for Boeing's stakeholders, which directly resulted in Boeing's project approval. Led a development team of 8 people from initial design, through implementation, and final delivery of the production system. The team met all milestones and delivered an application that saved Boeing over 30 million dollars in the first year and 30 million dollars for the next 6 years..

Boeing **Ensodex Senior Developer**
Specialist
7/00 – 9/00

As a sub-contractor through SDRC, served as Technical Team Lead, Architect, Customer Liaison and a primary Developer for Boeing's Purchase Order Application. A J2EE application based on SDRC's Accelis product and IBM's WebSphere at the Portland Manufacturing Plant. This application integrated eight homogeneous legacy systems into a single web-application, which streamlined the creation / releasing of purchase orders for Portland purchasing agents. The application reduced the time a purchase order specialist needed to create / release a purchase order from two hours to less than five minutes. The entire system was designed, coded, tested and put into production in eight weeks, 3 months ahead of original estimates.

SDRC **Ensodex Senior Developer**
Specialist
12/99 – 4/01

Supported SDRC's Accelis presales efforts as Chief Architect and Technical Team Lead and Developer in extremely competitive environments by developing customer-relevant or required benchmarks in J2EE environments, and then presenting the benchmark results along with product technical presentations. In every situation we delivered more than was required in a shorter time with better stability than the competitors. Sales efforts include Boeing Commercial Airplane, Boeing Rocketdyne, L3 Communications, Rockwell International, Ford, Michelin, Toyota and others.

St. Paul Companies **Team Leader**
4/98 – 4/99

Claims Major Markets

Member of new development team responsible for creating a billing system for large accounts. Duties included creating new CICS remote stored procedures, testing and general problem resolution. Also responsible for maintenance, enhancements, tuning and Y2K testing on a mainframe system that transmits claim data to a third party vendor. Created a mainframe testing environment for programmers.

Various Clients **Consultant**
1984 – 1998 Allstate Insurance – Property, Auto, Data Warehouse, Agent Data Delivery
1982 - 1984 University of Iowa Hospitals and Clinics

Project Narrative

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

Attachment 1:
Title: **Minnesota Current LDS** Pages: **0** Uploaded File: **C:\Documents and Settings\crhombs\Desktop\Appendix C - MN LDS.pdf**

Appendix C – Current Status of Minnesota's Longitudinal Data System

LEAD Infrastructure Staff **MDE – Senior Architect** **Dave Reeg** **System Capabilities**	**Describe the current status of each requirement, "completed" or "under development."**	**Relevant Project Outcomes**
➢ ***Required Data System Capabilities as listed in section IV, Statewide Longitudinal Data System Requirements***		
1-The system must enable States to examine student progress and outcomes over time, including students' preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces. Such a system must include data at the individual student level from preschool through postsecondary education and into the workforce (e.g., employment, wage, and earnings information).	**Under Development** – The Minnesota K-12 LDS uses K-12 unit record student level assessment, enrollment, disciplinary incidents data. With funding from the 2006 LDS award we were able to create a basic infrastructure to support AYP calculations and Growth calculations. In Phase II of the LDS we will expand data on pre-school children, develop a series of college and career readiness indicators and barriers and incorporate post secondary and workforce data to create a Statewide Longitudinal Education Data System (SLEDS). Data will be generated from either the P-12 LDS or the new SLEDS warehouse. Data analytics will be provided by expanding the existing Educator portal with eight new dashboards or through a new analytic portal the P-20 Research Portal of MN for P-20 and school to work analysis.	**Outcome C**- Analytic Portals Housed at MDE and OET **Product 6** –Expanded Educator Portal with dashboards -Start Early, Effective Teacher Prep, Shared Accountability, Q-Comp, M2D3, AP Access, VAM evaluation **Product 7** – P-20 Research Portal of MN for P-20 and School to Work initiatives
2- The system must facilitate and enable the exchange of data among agencies and institutions within the State and between States so that data may be used to inform policy and practice. Such a system would support interoperability by using standard data structures, data formats, and data definitions to ensure linkage and connectivity among the various types of data.	**Under Development** – The K-12 LDS currently is defined by an enterprise data dictionary providing standard definitions. Data formats and structures vary as Minnesota currently collects data from LEAs through web based file upload or main frame batch upload. Our 3 year strategic plan which incorporates a SIF education data model involved moving all core data systems student, staff and organization including financial) data collections to web based, XML, SIF enabled platforms allowing LEAs to provide data to us to upgrade all collection systems to web based, SIF enabled platforms creating greater interoperability. These technology upgrades will extend to the SLEDS project which will incorporate post secondary, workforce and employment furthering interagency interoperability within Minnesota	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff and Organization. **Outcome B-** P-20 data warehouse to be housed at a partner state agency OET **Product 5 –** SLEDS P-20 workforce warehouse
3- The system must link student data with teachers, i.e., it must enable the matching of teachers and students so that a given student may be matched with the particular teachers primarily	**Under Development**-Since 1998 Minnesota has had unique student and teacher identifiers. What we have lacked is a way to link the two in a meaningful way. The Minnesota Common Course Catalogue currently in development is targeted for inclusion within all SERVS products includes the adoption of a state level common course catalogue will allow us to	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff and Organization

LEAD Infrastructure Staff **MDE – Senior Architect** **Dave Reeg** **System Capabilities**	**Describe the current status of each requirement, "completed" or "under development."**	**Relevant Project Outcomes**
responsible for providing instruction in various subjects.	collect course taking information from students K-12 and their teachers across a variety of subjects including core and non-core areas.	
4- The system must enable matching of teachers with information about their cert. and prep. programs, including the institutions where they received training.	**Under Development-**SERVS Staff will incorporate all of the data elements currently collected in the legacy teacher and personnel licensure systems and add additional information linked to the teachers they graduated.	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff and Organization.
5- The system must enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers, and school leaders on the achievement of their students.	**Under Development-** Our foundational LDS system includes core education data sets and a single sign on role based security system. We currently provide two levels of reporting: traditional public access reports in the Minnesota School Report Card and secure reports created for researchers or educators. Phase II of the LDS will leverage this capacity to include additional data elements in more user-friendly dashboards to increase accessibility.	**Outcome C**- Analytic Portals **Product 6** –Expanded Educator Portal dashboard features: Start Early, Effective Teacher Prep, Shared Stakes, Q-Comp, M2D3, AP Access, VAM evaluations.
6-The system must ensure the quality and integrity of data contained in the system.	**Under development-** Minnesota has many foundational pieces in place to ensure data quality. The enterprise data dictionary holds common definitions for all data elements across systems. Documentation for each system includes a list of acceptable values. Automated web applications have built in data validation and edit checks that prevent inaccurate data from being submitted. Training is provided by MDE staff in sponsoring program areas at critical points during the school year through a variety of formats.. A monthly Data Sig is held to communicate updates and new requirements to LEA data vendors and data managers. In addition MDE provides help desk service for each data collection.	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff and Organization. Including features under each product for data manager training to support LEA staff in expanded data collection and reporting efforts.
7 The system must provide the ability to meet reporting	**Under development-** Minnesota takes great pride in being able to provide EdFActs data elements from our current LDS. Upgrades to SERVS products	**Outcome A** – An MDE Enterprise Data collection

LEAD Infrastructure Staff **MDE – Senior Architect** **Dave Reeg** **System Capabilities**	**Describe the current status of each requirement, "completed" or "under development."**	**Relevant Project Outcomes**
requirements, especially reporting progress on the metrics established for the State Fiscal Stabilization Fund and the reporting requirements included in the *EDFacts* data collection and reporting system.	will enhance this capacity by including new data elements from Ten Policy Initiatives that will expand the analytic capacity. The new capacities outlined in this proposal will ensure that all the assurances for the State Fiscal Stabilization Fund are met. The three system improvements described in this proposal will allow Minnesota to generate data needed to measure student success and inform teachers and principals about how to improve practices.	System **Outcome B** - A -20 Education Data Warehouse **Outcome C**- Analytic Portals for P-12 and P-20 data
Twelve elements prescribed by the America Competes ACT as listed in *section IV. Statewide, Longitudinal Data System Requirements.*		
1- A unique statewide student identifier that does not permit a student to be individually identified by users of the system (except as allowed by Federal and State law)	**Completed** Since 1998 our unique identifiers are randomly generated; student level data is only displayed through secure single sign-on analytic portals. Only authorized personnel have access to individual student data. Publically reported is not disaggregated below nine students in group and is redacted as necessary to protect student privacy.	**NA – completed**
2-Enrollment, demographic and participation info.	**Completed:** Since 1998 Minnesota has collected student level enrollment and demographic and program participation information. We have been able to disaggregate graduation rates for the past eleven years.	**NA – completed**
3- Exit, transfer out, drop or completion of P-16 education programs data.	**Under Development:** Since 1992 Minnesota has collected information about student entry and exit status including transfers in and out, drop outs. With these funds we will expand to include post secondary information.	**Outcome B** - A P-20 Education Data Warehouse **Outcome C**- P-20 Portal
4-The capacity to communicate with higher education data systems	**Completed**– State statue permits the sharing of data between MDE and OHE including attendance, demographic and enrollment, academic performance, testing. Data sharing agreements between agencies have been signed and data warehouse deliverables are scheduled for completion in 2010 and 2011.	**Outcome B** - A -20 Education Data Warehouse **Outcome C**- Analytic Portals for P-12 and P-20 data
5-A State data audit system assessing data quality, validity, and reliability	**Completed-** Minnesota has many foundational pieces in place to ensure data quality. The enterprise data dictionary. Automated web applications have built in data validation and edit checks that prevent inaccurate data from	**NA- completed**

LEAD Infrastructure Staff **MDE – Senior Architect** **Dave Reeg** **System Capabilities**	**Describe the current status of each requirement, "completed" or "under development."**	**Relevant Project Outcomes**
	being submitted. Training is provided during the school year through a variety of formats. A monthly Data Sig is held to communicate updates and new requirements to LEA data vendors and data managers. In addition MDE provides help desk service for each data collection.	
6-Yearly test records of individual students under section 1111(b) of the ESEA 1965	**Completed**-Minnesota publishes annual state assessment results in the School Report following state and FERPA privacy guidelines. These same results may be viewed by LEAs in unfiltered aggregate format and by individual student record within the Educator Portal.	**NA - completed**
7-Information on students not tested by grade and subject.	**Completed**-Minnesota publishes annual state assessment results for both students tested and not tested by grade and subject. These same results may be viewed by LEAs in unfiltered aggregate format and by individual student record within the Educator Portal.	**NA - completed**
8- A teacher identifier system with the ability to match teachers to students	**Under Development**-Since 1998 Minnesota has had both a unique student identifier and a unique teacher identifier. We lacked is a way to link the two in a meaningful way. The Minnesota Common Course Catalogue currently in development is targeted for inclusion within all SERVS products includes the adoption of a state level common course catalogue will allow us to collect course taking information from students K-12 and their teachers across a variety of subjects including core and non-core areas.	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff and Organization
9 Student-level transcript information, including information on courses completed and grades earned	**Under Development**- The Minnesota Common Course Catalogue project envisioned as a feature al all four serves products will facilitate the collection of course information including grades earned as a component of an electronic transcript added to current elements including GPA, Class Rank and individual passing information based on IEPs or student learning plans for ELL students.	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff and Organization
10-Student-level college readiness test scores	**Complete** to date MDE has published student level ACT data including the Education Planning and Assessment System information from EXPLORE and PLAM. We are expanding this capacity with recently negotiated data sharing agreements with College Board to secure student level information	**Outcome A**-MDE Enterprise Data Collection System **Products 1-4** SERVS Infrastructure, Student, Staff

LEAD Infrastructure Staff **MDE – Senior Architect** **Dave Reeg** **System Capabilities**	**Describe the current status of each requirement, "completed" or "under development."**	**Relevant Project Outcomes**
	on CLEP and AP exams. All data are being incorporated into the PK-12 data warehouse and used to develop a series of college readiness indicators including supports and early warning indicators to better ensure post secondary success. With funds from this grant we will assign staff to match ACT and College Board student level results to Minnesota's unique student identifiers for inclusion in the data warehouse. Additional analytic reports are envisioned once these data are incorporated.	and Organization – **Outcome C**- Analytic Portals for P-12 and P-20 data. Products include expanded dashboards to incorporate data required by Minnesota's ten policy initiatives.
11-Data that provide information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework	**Under Development**- MDE has negotiated an interagency data sharing agreement between P-12, public and private institutions of higher education.. Additionally we have an interagency governance structure sponsored by the P-20 Council that provides policy support for this effort. With funding from this proposal we will create a P-20 data warehouse that includes information on transition from P-12 to post secondary and the types of courses taken.	**Outcome B** - A P-20 Education Data Warehouse **Outcome C**- Analytic Portals for P-12 and P-20 data. Products include expanded dashboards to incorporate data required by Minnesota's ten policy initiatives.
12-Data that provide other information determined necessary to address alignment and adequate preparation for success in postsecondary education	Completed Minnesota currently provides data on how well students are prepared for post secondary success by publishing results from ACTs Educational Planning and Assessment System: EXPLORE and Plan. With funding from this proposal we will expand those elements to include data from post secondary as well.	**Outcome B** - A P-20 Education Data Warehouse **Outcome C**- Analytic Portals for P-12 and P-20 data. In expanded dashboards

Project Narrative

Project Narrative - Appendix D Letters of Support

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Appendix D

Selected Footnotes

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3 Shared Stakes Shared Accountability
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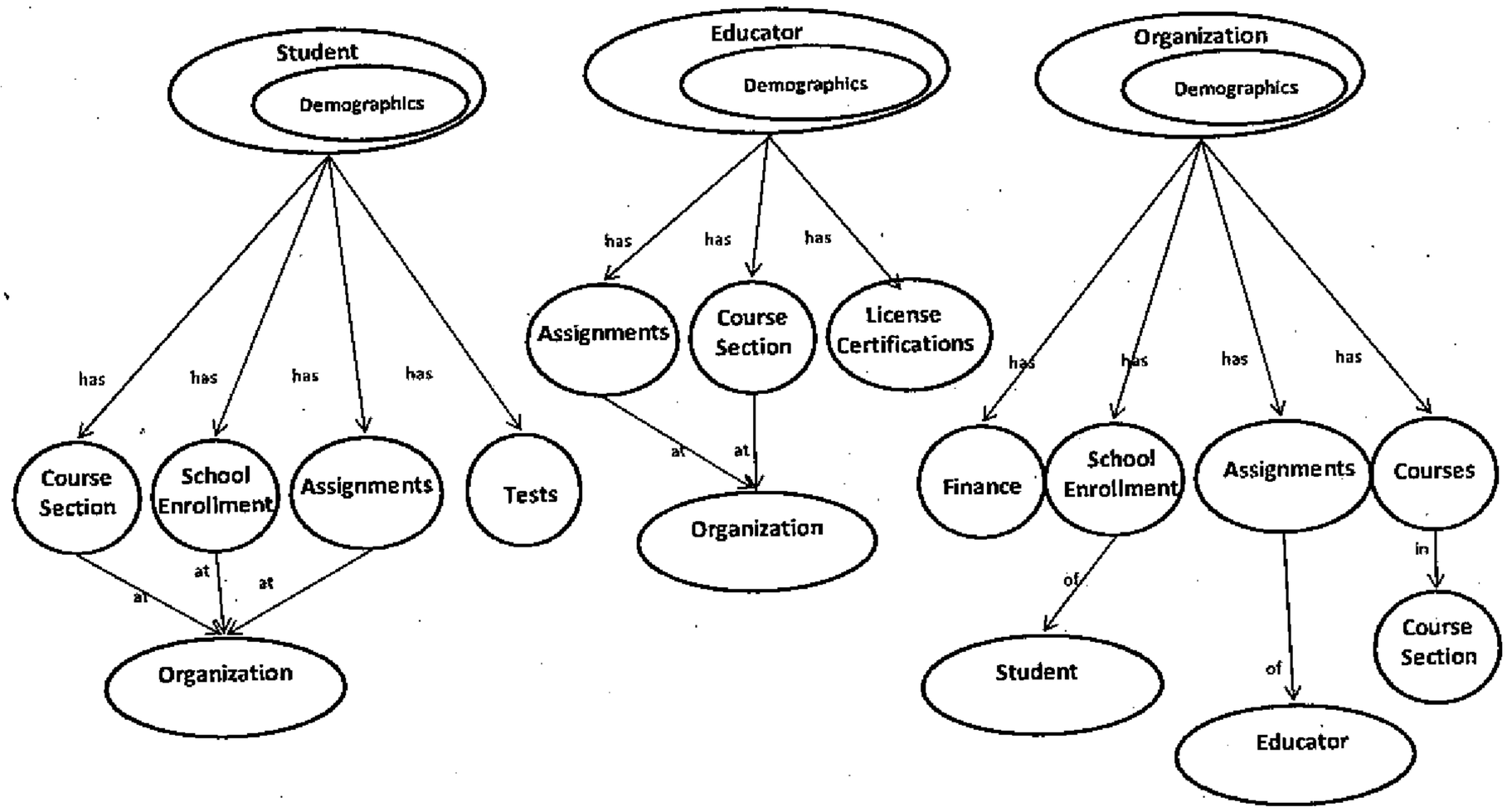
8 VAM
9 SLEDS is described it the project narrative
10 FastTrac Policy

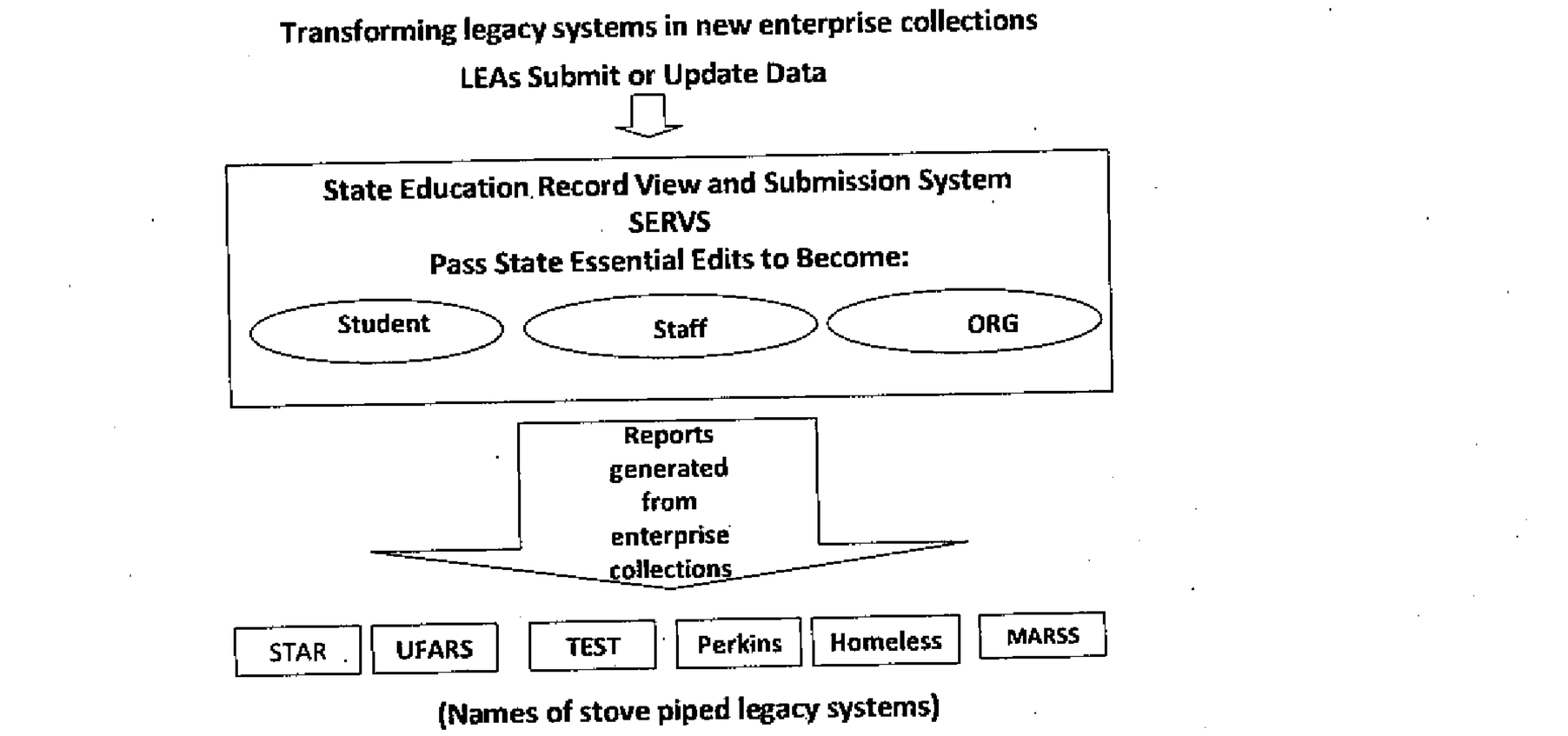
Letters of Support

Amhersth Wilder Foundation
Association of Metropolitan School Districts
Minnesota Association of School Administrators
Minnesota Association of Secondary School Principals
Minnesota Business Partnership
Minnesota Chamber of Commerce
Minnesota Children's Museum
Minnesota Elementary School Principal's Association
Minnesota Rural Education Association
MnSCU
Rochester Public Schools
University of Minnesota

Footnote 1- Enterprise Data Model

Partial MDE Enterprise Data Model High Level Overview





Footnote 2- White Paper Probabilistic Matching

Creating Student Information from Legacy Record Systems Using Probabilistic Record Linking

By John Paulson, Chief Information Officer

November 24th, 2008

Contents

Abstract

Linking student information across disparate legacy systems within the Minnesota Department of Education (MDE) was tedious, error prone, and lacked consistent repeatable results. MDE reviewed several methods of record linking in the record linking literature. After evaluation, MDE chose to use the Howard B. Newcombe record linking techniques (Newcombe, 1988), described in the "Handbook of Record Linking". This paper describes the steps and processes used by MDE to create probabilistic record matches for one enrollment system, the Minnesota Attendance Reporting Student System (MARSS), which reports student enrollment at districts and schools. Techniques and examples are described and several applications of the results are presented.

Introduction

The Minnesota Department of Education (MDE) collects data about students, teachers and other individuals in various separate data collection systems. In addition, MDE receives information on individuals from districts, vendors, schools, and other sources. In many instances, these systems stand alone and work well as designed. There are however, many significant requirements from various federal, state and local initiatives that need to look at this information from a student, or instructional professional perspective. Providing a student centric or teacher centric view requires linking information on individuals from these various disparate systems into a consistent view. One of the most difficult challenges related to this process is choosing linking methods for individuals that are automatable, highly reliable, repeatable, and justifiable.

Problem Statement

MDE has extensive data repositories that have information useful to students, teachers, legislators, researchers, and state and federal accountability and reporting systems. These stake holders could create positive impact to educational outcomes if given reliable access to this repository. As MDE began creating the data warehouse repositories necessary to support this access, it became clear that one of the largest problems associated with analysis was the proper linking of data between reporting systems. If linking wasn't provided as part of the warehouse repository access, it would an exercise for each person accessing the data. This would lead naturally to multiple linking methods which create data reporting errors and inconsistencies.

Legacy Systems Data

Individual systems that have been designed over many years (legacy systems), have been created to serve a specific purpose. The Minnesota Automated Reporting Student System was designed, implemented and refined in the 1980s to collect information about student enrollment at the district and school level. The information it collected was used almost exclusively for financial calculations, and in fact was created and used by the Program Finance department within the agency. A separate system was developed for collecting information on Carl Perkins student program participation. Still other systems collect information regarding student disciplinary incidents, migrant status, special education statuses, graduation rates, and others. In the 70s, 80s and early 90s, object oriented techniques and database design had not evolved or been incorporated to the degree necessary to manage the complexity of creating a consistent student view. In fact, complexity was usually addressed by the creation of separate systems that prevented the inadvertent interaction between one collection and another. This created the following linking challenges:

Different key identifiers

Two different legacy systems that collect student information may use different student attributes to identify students. For example, a student enrollment identifier may include last name while a disciplinary incident report might not. Such inconsistencies mean that there is

less "context" information with which to link records together.

Inconsistent use of identifiers

Some legacy systems may permit 30 characters for a last name while another permits 40 and a third allows 40 characters for last, first and middle using comma separated values. Such inconsistencies create difficulties in the automation of comparisons. Some systems even permit prefix and suffix attachments in the name. The result is that even if two legacy systems contain the same identifying attribute, the inconsistent use makes it difficult to use.

Schedule driven inconsistencies

Legacy systems designed for a particular purpose often have a "reporting schedule" associated with them. The MARSS system collects enrollment information necessary for financial processing. While there are a number of scheduled submissions through the year, they are in preparation for processing fall enrollment financial payments and end of year enrollment financial payments. Consequently, enrollment information is accurate only twice a year when it is needed by the Program Finance department. If the NCLB and AYP systems need to measure assessment participation against enrollment, they are dependent on the financial submission schedule that does not coincide with the NCLB and AYP schedule. While MDE has addressed this particular silo problem with a system enhancement, it is an example of linking issues associated with schedule inconsistencies.

Data Reporting Errors

If there is no central definition or standard associated with student data collection, data reporting errors may be impossible to detect. Certainly between legacy systems there is no way to know if "Anderson" and "Andersen" are the same person with a common misspelling, or if the two names reference different people. Misspelling, transpositions, the use of special characters, incorrect ordering of first and last name, and scores of other possible clerical errors contribute to data reporting errors. Independent legacy collection systems have no mechanism to enforce consistency between them.

Changes over Time

Most things change over time. That includes people and systems.

People change identifiers

People change their names due to adoption, divorce, marriage, religion, or preference. Recognizing this change between disparate reporting systems and even in the same system in separate reporting cycles represents a challenge in record linking.

Systems evolve and change

In addition to people changing, systems change. Prior to 1997, the MARSS system used Social Security Numbers (SSNs) as student identifiers. In 1997 a policy change directed that SSN not be used and become optional. A new identifier, the MARSS number was created. This MARSS number was to be unique per student, but as will be seen later, it is only unique per student per financial reporting cycle. In 2008 another policy directive required, all student SSNs in MDE systems be removed.

Linking records for a single student even within one system can be difficult when name changes and system changes create inconsistent identifiers.

Previous Options

Manual Matching

Humans do matching of records well, and when there is a small enough amount of data it is an acceptable alternative. We are interested in many millions of records and so this alternative was not considered except where needed to validate or audit automated methods.

Ad hoc Automated Matching

This is the technique that has been used for many years at MDE. It consists of using a SQL programmer to match records according to some criteria, review the results, refine the match, and continue until a "reasonable" or "expected" match is returned. Usually if you used the same SQL programmer you would get a consistent process. But the process would need to be modified in each case to account for the legacy problems described above. While this technique worked well, it depended on scarce resources, was dependent on interpretation, and was not automatic.

The central problem with this ad hoc approach, besides the manual nature, was in the qualification or quantification of the match quality. The following questions are difficult to answer:

- How well does the match work?
- Is there bias across gender or race?
- Is there bias across highly mobile populations?
- Will I get the same answer next year?
- Where and how are the techniques used in the frequent requests documented?

Alternatives Considered

Commercial Products

One alternative is to just buy a commercial off the shelf (COTS) product to do the matching. While there are many such products on the market, most require extensive customization. Customization is necessary because COTS products have no "context" of your application. There is no inbuilt knowledge of the structure of your data or the type of data. COTS products do well with generic data, but miss the advantage of knowing that "students are related to districts", unless they have been customized for education. MDE may use COTS products in the future, but believed that understanding the "process" of linking will make the use of COTS products much more effective.

Other techniques

Several other techniques were investigated including research from sources other than Newcombe (Newcombe, 1988). These included research articles, presentations and journal publications (Fellegi, 1964), (Thoburn, 2007) and (Winkler, 1993). Most of these works are powerful foundations and or derivatives of the Newcombe work. The Necombe "Handbook of Record Linkage" was the simplest and most complete practitioner's manual available. It was a straightforward "how to" manual that allowed for novice understanding and quick analysis.

Context

If the three rules of real-estate are location, location, location, the three rules of probabilistic record linking are context, context, context. While probabilistic record linking can be a complex process, using context associated with the data, significant results can be achieved while avoiding much of complexity. For example, if two files A and B each have 1,000,000 records and it is desired to find the matched records and no other information is known, that is a difficult task best left to a general tool. However, it is not the same if the files contain 1,000,000 records from students in Minnesota and the enrollment district for each student is known. Such a context would allow a much simpler and more accurate matching process. Context is one of the central reasons MDE chose to implement the matching process without COTS tools.

Probabilistic Record Linking Overview

General Concepts

General concepts needed for any discussion on matching include the following definitions in the context of this paper:

True Linked Records

These are records that have been linked together and are verified to be correct links. They are linked and they should be linked.

True Non-Linked Records

These are records that have not been linked together and are verified to be correct non-links. They are not linked and they should not be linked.

False Positives

These are records that have been linked together and are found to be incorrect links. They are linked and they should not be linked.

False Negatives

These are records that have not been linked together and are verified to be incorrect non-links. They are not linked but they should be linked.

Frequency Ratios

Newcombe describes Frequency Ratios (FR) as "betting odds" in favor of a correct match. The "$E=MC^2$" of probabilistic record linking is stated as:

Frequency Ratio

$$= Frequency\ of\ Outcome\ (x,y)\ among\ linked\ pa$$
$$/\ Frequency\ of\ Outcome\ (x,y)\ among\ nonlinked$$

To illustrate an example for student matching, assume there are two files X and Y, that each contains 10,000 student records from different systems.

If you plan to probabilistically link student records from file "X" and file "Y", it is first required to create a file of "linked pairs" (x,y) where "x" is a record from file X and "y" is a record from file Y that have been determined to be about the same student. Further assume this file is created to have 100 linked (x,y) records and is called "L".

Likewise it is also required to create a file of "unlinked pairs" (x,y) where "x" is a record from file X and "y" is a record from file Y that have been determined to be about different students. This file is also created to have

100 nonlinked (x,y) records and is designated "N".

"Outcome" is any comparison you might think valuable to measure. For this example outcome will be "Exact Match (EM) of Last Name (LN)".

The formula can then be restated as:

$$FR = Frequency\ of\ EM\ (LNx, LNy) in\ L / Frequency\ of\ EM\ (LNx, LNy) in\ N$$

If it was observed that in "L" that last name was an exact match 96 times and that last name matched 2 times in N, then the frequency ratio of "agreement" would be 96/2 or 48. In betting terms this means an exact match of last name is 48 to 1 in favor of linking. Further, it can be extrapolated that the frequency ration of "disagreement" is 4/98 or 1/24.5. In betting terms this means that a non match of last name is 24.5 to 1 against linking.

Global vs. Specific

In the above example, no consideration is given to the "value" of the data. That is an exact match of "Anderson" is equal in value to an exact match of "Toqeville". When data value is ignored, the frequency ratio is considered to be a "global" frequency ratio (GFR). When data is considered and factored into the calculation the result is considered "Specific". While there is additional power in using Specific frequency ratios, it also introduces significant complexity. Not only are the formulas more complex, but the process become sensitive to the data sources. Name occurrences and frequencies will change depending on the part of the country and the name type of data being analyzed. A file of "Migrant students" will contain a different concordance listing than a locally produced file of students in a small geographic range.

MDE avoided use of specific value discrimination in our process in favor of simplification. It is mentioned here to note that if insufficient match quality is achieved with simple GFRs, they may be extended to SFRs to improve the match.

Conditional Probabilities

Conditional probabilities add additional complexities. A simple example of conditional probability is matching on Last Name (LN) and Last Initial (LI). The GRFs associated with these two outcomes are not independent. If these two comparisons are needed, this may be handled two ways.

Compare conditional

LI agrees
- LN agrees compared only if LI agrees
- LN disagrees compared only if LI agrees

LI disagrees

Compare concatenated

Both LI and LN agree
LI agrees but LN does not agree
LI disagrees

Concatenated GRFs are easier to work with in following stages of calculation. MDE avoided using conditional probabilities as much as possible and used the simpler concatenated method when necessary.

Partial Agreement

Converting GFRs to SFRs when there is full agreement in an outcome is an extra step, but is not difficult. Converting GFRs to SFR when there is partial agreement becomes more difficult and is less intuitive. Since MDE has not used SFRs to date, it will not be elaborated

here. Newcombe does describe the process if it is needed for increased discrimination. (Newcombe, 1988)

Missing Identifiers

In general missing identifiers do not argue in favor of linkage or nonlinkage. They are neutral. There are special circumstances when this is not true however and that may include middle initial. After significant experimentation, MDE did use middle initial and treated the absence of middle initial as neutral. This assumption requires further investigation.

Relative Odds

Relative Odds present an overall ranking or ordering of the quality of the match. They are achieved by multiplying individual outcomes to achieve a total sum. Returning to the previous example, let's add an exact match of first name and have two frequency ratios created.

$$FR = Frequency\ of\ EM\ (LNx, LNy) in\ L / Frequency\ of\ EM\ (LNx, LNy) in\ N$$

$$FR = Frequency\ of\ EM\ (FNx, FNy) in\ L / Frequency\ of\ EM\ (FNx, FNy) in\ N$$

Recall that the result for the first formula was 96/2 or 48. Let us suppose the result of the second formula is 96/6 or 16

This can be summarized in the following table:

ID	Outcome	Percent		GFR L/N
		Link	Non linked	
LN	Agree	96	2	048.0
	Disagree	4	98	0.040
FN	Agree	96	6	0016
	Disagree	4	96	0.042

Now the global frequency ratios can be multiplied to get accumulated odds

Combined	Calculation	Relative odds
event		
LN and FN agree	48*16	768
LN agrees and FN disagrees	48*.042	0.96
LN disagrees and FN agrees	.040*16	.64
LN and FN disagree	.040*.042	.002

With larger samples and more discriminators, the numbers get large and small quickly and become cumbersome to work with. Often people convert them to base 2 logarithms to make them easier to visualize. In addition, calculating to the three digits of precision in this example with only 100 records would not be advised. In actual practice the file of L and N would be much larger and have 1,000 or even 10,000 records and allow much greater precision.

These combined orders can be used to do matching in their own right. Often products and systems stop at this point and produce matches at some "threshold" that is set by empirical observation.

Absolute Odds

Newcombe describes two factors that are needed to move from relative odds to absolute odds. They are (1) the probability that a search records is indeed represented in the file being searched, and (2) the size of that file. The less likely the record is in the searched file and the larger the file, the more discrimination power is needed. These two requirements can be expresses as the following formula.

$$Absolute\ Odds = Relative\ Odds \times (number\ of\ linked\ search\ records \div total\ num \times (1 \div total\ number\ of\ records\ being\ searched)$$

For our example if we assume that we are searching from file X for a match in file Y, and we have determined that 9,000 of the 10,000 students in file X are in fact in file Y then our adjustment would be 9,000/10,000 * 1/10,000 = .00009.

Thus in our example 768*.00009 = .069. Therefore in our example, if both last name and first name match, there is a 7% probability that it is a "correct" match. Another way to say the same thing is the match would be incorrect 93% of the time. Clearly more discrimination will be needed even when dealing with 10,000 records.

Benefit of a cookbook approach

The Newcombe method represents a cookbook approach that is powerful yet reasonable in complexity.

Benefit of generalized matching

The method generalizes to matching across vastly different systems if discriminatory power can be found. Discriminatory power can be quantified exactly. For example, "last reported school district" in one system can be related to "address of guardian" in a different system if needed. Additional discriminatory power can be created within any related fields.

Benefit of context simplification

Because of context, the process of using Newcombe's method can be customized and simplified for just the ease of use and discriminatory power needed.

Benefit of communicating absolute probabilities

The use of absolute probabilities clearly communicates risk and quality issues to end users of the matching results.

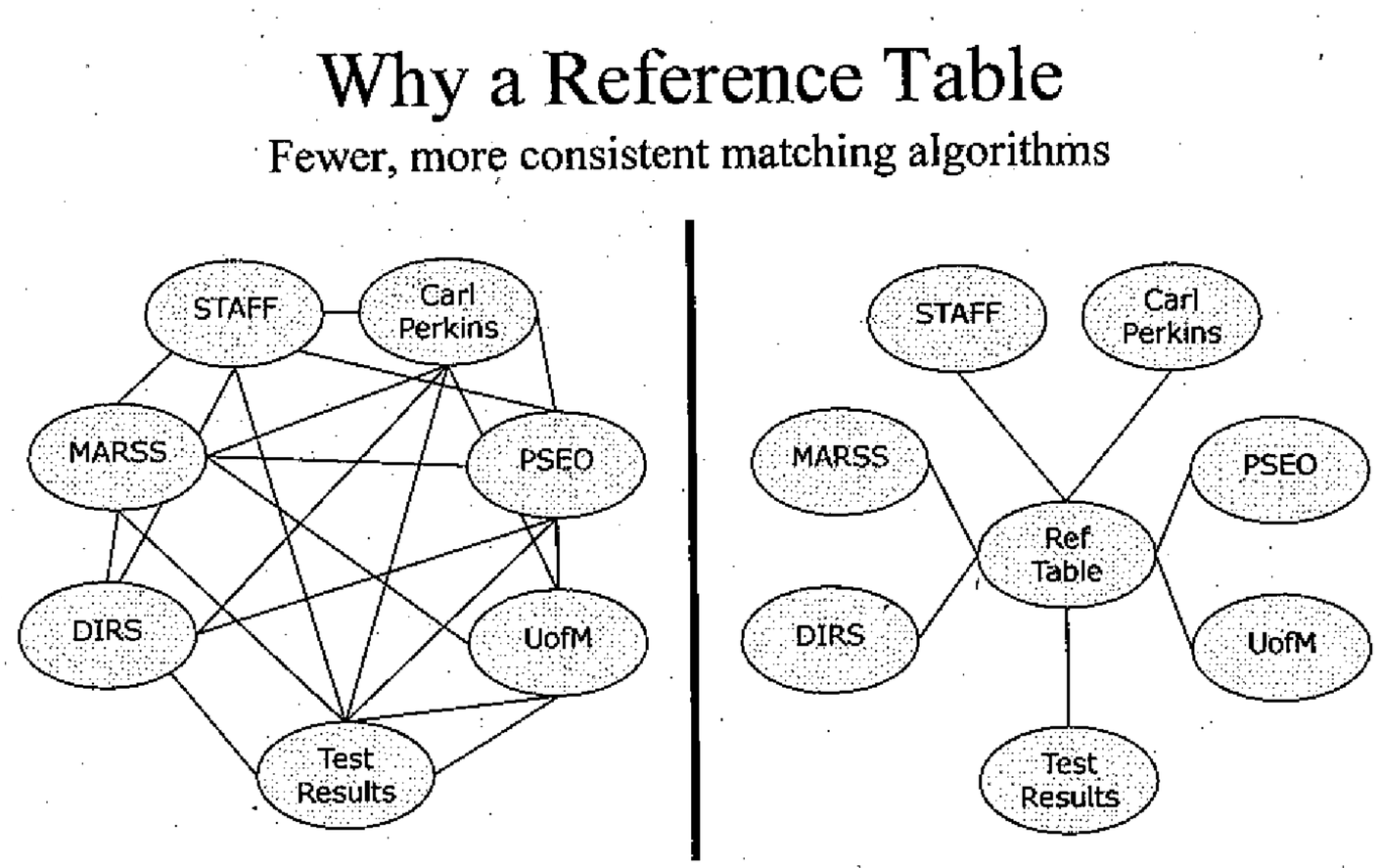
Benefit of high quality across disparate systems

The disparate systems can be linked with high quality and certainty to provide a student view of data.

Implementation

Create a reference file

Probabilities calculated depend on the source file and target file to match. It would be possible to create a separate probability matching calculation for each system. This would likely lead to confusion and inconsistency as well as more work. The following diagram illustrates the number of calculated matching algorithms needed.



The reference file can be thought of as a file of all possible students and their aliases. If an attempt to match a record to the reference file fails, the matching process has the option of reporting the error, or adding the new record that represents the new student. The authority to add records that do not match implies the matching process that is calling for the match is "authoritative".

Starting with Authority

The reference table should be created with the most authoritative system available. In the case of MDE, that was the MARSS enrollment system. Districts are funded based on the data submitted and quality is monitored and audited. Since the major key field had changed from SSN to MARSS number in 1997, and our initial research was before the 2007 submission cycle completion, MDE chose to create the reference file from MARSS enrollment records from 1997 through 2006. It was also determined that the reference table initially consist of records containing MARSS number, Last Name, First Name, Middle Initial, Gender, and Date of Birth. Additional discriminators may be added in the future, but these were chosen as the initial set.

Determine Record Meta Data

The usefulness of the resulting linking system will be enhanced if Meta data about the records being matched is available to the systems requesting linking information. Information such as 1) from which system was this linked record derived, 2) was the system this record was derived from an authoritative system, 3) is this record a core identity record or an alias record, etc. Meta data allows requestors to be more discriminating in their requests for record linking (e.g. "link with current authoritative records only".

Deal with Time Upfront

It is important to note that even that matching system may change. That means there may be calls to the system for matches that would return different results over time. There are several ways to resolve this ambiguity. One would be to take periodic snap shots of the reference table and "freeze" them for historical purposes. A second would be to use versioned records that allow asking for matches as they would be at a certain point in time. MDE chose this latter method. Dealing with time in databases is a complete separate subject and beyond the scope of this paper. It is important to mention however, and an excellent reference source is (Snodgrass, 2000).

Grouping vs. Matching

There is a subtle distinction between grouping and matching. Matching attempts to link records from one system to another. Grouping is the process of creating a reference table from a single group of records that have many repetitions and aliases representing the same student.

Creating a reference table

Definition of a reference table

It is possible to link records from two separate systems, for example link file A with file B. When several systems are involved and linking must be permitted across years and system structural changes, it is more useful to create a standard or "reference" matching file or reference table. This table represents an evolving list of all unique persons, their aliases, and a unique identifier that describes one and only one person. Many systems have identifiers that are more or less unique, but due to data entry errors or omissions, are not guaranteed to be unique. The unique identifier associated with each person in the reference table is a source system independent guaranteed unique identifier. It may be too soon to call this a "Student" table, but it is close.

The false negative and false positive tradeoff

The reference table is created with an initial load of data from one or more systems of interest using rules determined to create the maximum true matches, while minimizing the instances of false negatives and false positives. There is always a trade-off associated with maximum true matches and minimum false positives. The reference table is modified operationally by those systems designated as sources of student person information.

False negatives go down in number as the match is "loosened" while the opposite is true for false positives. A point where there are the fewest number of errors might be called the "Best Quality" point. MDE however took a very conservative approach. It was thought that false positives could result in the

wrong information being sent to the wrong student. This was to be minimized at the sacrifice of increased false negatives. Our initial goal was to have a quality match of approximately 99.99%. This would represent one false positive per 10,000 records.

Concordance Table

Based on 1997-2006 MARSS End of Year Data	Concordance Data
MARSS#	1,848,400
Last Name	123,217
First Name	173,706
Middle Name	72,269
Last Initial	26
First Initial	26
Middle Initial	26
Data Of Birth	15,344
Gender	2

There were 11,324,620 records selected from the MDE 1997-2006 enrollment data. The concordance table above summarizes the results. Each number represents the unique number of values of that variable in the concordance table.
Creating the initial reference table load required experimentation. Retaining the conservative approach to false positives required inspection of a number of rules. The Soundex used was the Microsoft SQLServer 2005 soundex set at the highest level of four. Each rule was executed in the order shown. This allowed stronger rules to operate on larger sets of data, while weaker rules operated on smaller sets.

The initial set of records went from 11,324,620 records to 1,888,464 records with Aliases. Each group of aliases was assigned a unique id called an Alias Group ID (AGI). It is important to note that there are likely errors in this reference file, and in our case many more false negatives than false positives. Initial investigation suggests errors on the order of 100 false positives per million and 1000 false negative per million. More investigation is required to determine the exact level of error. Necombe suggests that this is not serious and will not affect the probabilities and calculations in a significant manner.

Create a file of Linked Records

The Newcombe method requires a file of record pairs that are known to match. MDE created a file of 10,000 records that were verified to be valid matches. The 10,000 records were selected at random from the original 11,324,620 and matched to the reference table. Each record in the file contains the "key" fields identified in the first step.

Create a file of Non-Linked Records

The Newcombe method requires a file of record pairs that are known to *not* match. For example, a file containing 10,000 pairs of records that have been inspected to insure that each pair of records in fact refers to different individuals (non-linked). Each record in the file contains the "key" fields identified in the first step.

Analyze the records for Global Frequency Ratios

Agreement argues for linking, disagreement argues against linking.

Compute relative odds (weight or ranking)

Once the Global Frequency Ratios have been recorded, relative odds can be computed. Relative odds for any given match situation represent the product of the individual global frequency ratios. Because the numbers get quite large when dealing with more than three discriminators and quickly move to scientific notation, relative odds are often expressed as Log(2) and called weights. MDE converted directly to absolute probabilities in the next step.

Compute absolute odds

Relative odds are useful in comparing matching techniques. They require an arbitrary "cut-off" set by experience. Relative odds, or Global Frequency Ratios, for example can be expressed as a percentage based on the concept of number of good events divided by the number of bad events. They serve only as a rank ordering of the types of matches. Converting to absolute odds requires an additional computation. The odds of matching by "chance" need to be computed from two additional pieces of information.

$$Absolute\ Odds = Relative\ Odds * \frac{1}{TotalRecordsToSearch} * \frac{TotalLinkedRecords}{TotalSearchRecords}$$

In the MARSS reference table there are a total of 2,942,200 unique records to search. When Minnesota districts submit MARSS enrollment data, approximately 800,000 students are expected with 50,000 new students. That means that the total records we expect to link are 750,000, making our ratio 750,000/800,000 or 75/80 or 15/16. The following table shows the relative probability and the absolute probability of several rules. It may be important to note that there are many thousands of possible combinations of rules. These are some representative examples. The absolute probability is a "confidence" probability of the match.

MDE uses the probabilities to decide what to do with a record. If the record matches on a very high probability rule, say 99.99% or better, then that is called a match and the student is known. If the record does not match on any probability below 0.00, then that record is considered a new student and can be added to the reference table if the matching system is authoritative. If the record submitted matches at some rate in-between, it is considered a grey match and must be reviewed.

Of course this scale can be changed per process and each matching program is free to set their unique confidence requirements.

Also note that there are a couple of error conditions noted. This occurs when the student number is found in the reference table, but the data associated with that number does not match. The wrong number has been associated with the student data submitted.

Choosing Rules

It is theoretically possible to attempt to match each record starting with the best rule and working downward until the highest possible match is obtained. In practice, since there are many thousands of possibilities and millions of records, the performance associated with the dynamic calculations is prohibitive. MDE chose to experiment with matching rules and use a subset for processing.

Default Matching Rules

These are the suspect matching rules used by the SLS API as of 1-23-08.

MARSS#	Last Name	First Name	Middle Name	Date of Birth	Gender	MARSS Submission Absolute
ExactMatch	**Soundex**	**Soundex**	Unknown	**ExactMatch**	Unknown	99.9886%
Unknown	**ExactMatch**	**ExactMatch**	Unknown	**ExactMatch**	**ExactMatch**	99.9692%
ExactMatch	**ExactMatch**	**ExactMatch**	Unknown	Unknown	**ExactMatch**	99.9801%
ExactMatch	Unknown	**Soundex**	Initial	**ExactMatch**	**ExactMatch**	99.9804%
ExactMatch	**Soundex**	Unknown	Initial	**ExactMatch**	**ExactMatch**	99.9770%

Suspect Matching Rules

These are the suspect matching rules used by the SLS API as of 1-23-08. This is after the SLS Default Match Rules are executed and none of them rules create a match.

MARSS#	Last Name	First Name	Middle Name	Date of Birth	Gender	MARSS Submission Absolute
ExactMatch	Unknown	Unknown	Unknown	Unknown	Unknown	0.295%
Unknown	**Soundex**	**Soundex**	Unknown	**ExactMatch**	Unknown	48.665%
Unknown	**Soundex**	**Soundex**	Unknown	YM-Only	**ExactMatch**	0.129%
Unknown	**Soundex**	**Soundex**	Unknown	YD-Only	**ExactMatch**	0.163%
Unknown	**Soundex**	**Soundex**	Unknown	MD-Only	**ExactMatch**	0.100%

Example Successes

Test Editing

Districts are allowed to edit some limited information regarding test results before the information is summarized and sent to parents. Because of the significant requirement not to send the wrong test to a parent, the test editing system used very rigid match criteria to associate students with assessment results. Districts were allowed to see the matches and correct student identifying data when matches could not be made. No automatic matches were made with confidence less than 99.99%

AYP Participation

AYP used the matching program to associate enrollment records to test records. This increased visibility and accuracy of the AYP participation calculation.

More inclusive of highly mobile groups

The new matching algorithms removed significant bias against the highly mobile populations. Greater accuracy of matches across LEP, FRP, race and ethnicity are now possible. Highly mobile groups were the groups most likely to be assigned multiple MARSS numbers and have spelling changes in their names between district systems. The PRL matching algorithms create better longitudinal matches.

Increased cohort cohesion

The ability to have cohorts span ten or more years with highly reliable matching will permit increased insight into educational processes. An example is the exit code study.

Growth score calculations

Being able to look longitudinally backwards to find prior year scores is essential for growth modeling. With PRL it is possible to look backward into prior year data without bias against highly mobile populations.

Coming Soon

Ability to share with higher Ed

Using the PRL methodology and specific contexts, MDE plans to match student information across Minnesota state agencies for the purpose of longitudinal studies. Sharing with higher education institutions will allow college preparedness studies to analyze the effectiveness of various programs and course taking patterns.

Ability to share with wage information

Wage information can be used as one measure of outcome success. Crossing student information with State wage and income information will allow longitudinal studies to focus on how well Minnesota education prepares students for the work force.

Ability to share with human services information

Identifying students who should have access to a beneficial program based on their qualifying in some other program, may help to identify opportunities to promote Minnesota state services where needed. Matching students in schools and districts to human services programs can remove significant burden from the districts to qualify students for basic programs assistance. Faster, more accurate, and more inclusive program administration will be possible with automated student and human services matching.

Summary

There are significant studies and research efforts remaining, but MDE is already benefiting from the increased quality and ease of use regarding matching, especially across state agencies. The method shows great promise in longitudinal studies as well as linking disparate systems. The Necombe

techniques are not new. They have been applied extensively in health care for patient record linking. Extending this technique into the educational sector seems straight forward and timely.

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Footnote 4- SLEDS Charter

Minnesota Department of Education

Minnesota Office of Higher Education

Minnesota Education
P-20 Longitudinal Data System Charter

A. Vision

Minnesota will develop a longitudinal student data system to provide educators and policymakers with more comprehensive data and analysis from which to make informed decisions leading to educational improvement at all levels. As required by the federal government as a condition of receiving federal fiscal stabilization funds, this statewide longitudinal data system will match student data from pre-kindergarten through completion of postsecondary, enabling educators and policymakers to answer a range of program and policy questions to gauge the effectiveness of programs and design targeted improvement strategies.

B. Rationale

State governments across the country are putting plans into place for developing longitudinal data systems for two primary reasons: to facilitate data-driven decision making and because the federal government requires states to complete such systems as a condition of receiving fiscal stabilization and major federal grant funding. In 2008, 28 states reported their ability to match student records between the P-12 and postsecondary systems, according to the Data Quality Campaign. States are in various states of implementing a completed fully functional LDS system.

C. Legal Authorization

Minnesota Law

In the 2008 Minnesota legislative session lawmakers passed statutory language allowing the Minnesota Department of Education and the Minnesota Office of Higher Education to share data elements each currently collects for purposes of conducting research to answer questions identified in the vision for the Minnesota Education Longitudinal Data system.

Chapter 298: Sec.2. *M.S.* 2006, section 13.32 Subd.11. was amended to provide for:

> Data Sharing; improving instructions. The following educational data may be shared between the Department of Education and the Minnesota Office of Higher Education as authorized by the Code of Federal Regulations, title 34, section 99.31 (a)(6), to analyze instruction in school districts for purposes of improvement:
>
> (1) attendance data, including name of school or institution, school district, year or team of attendance, and term type:
> (2) student demographic and enrollment data;
> (3) academic performance and testing data; and
> (4) special academic services received by a student.
>
> Any analysis of or report on the data must contain only summary data.

Minnesota Interagency Agreements

Any usage of the P-20 data must adhere to the legal requirements of the following data sharing agreements:

- "State of Minnesota Interagency Data Sharing Agreement" signed by the Minnesota Department of Education and the Minnesota Office of Higher Education on September 1, 2009; and
- "Nondisclosure Agreement" between the Minnesota Office of Higher Education and higher education institutions providing student enrollment data.

Federal Laws

The federal mandate regarding state longitudinal data systems are contained in two federal laws:

- American Recovery and Reinvestment Act
- America Competes Act

The **American Recovery and Reinvestment Act of 2009** 26 United States Code Section 1 is in Title XIV - State Fiscal Stabilization Fund, Section 14006 State Applications. It states:

> (d) Assurances.--An application under subsection (b) shall include the following assurances:

(3) Improving collection and use of data.--The State will establish a longitudinal data system that includes the elements described in section 6401(e) (2) (D) of the America COMPETES Act (20 U.S.C. 9871).

The **America Competes Act** lays out requirements for state longitudinal data systems between K-12 and postsecondary education. America Competes Act, 20 United States Code Section 9871. It is in Title 20 – Education, Chapter 78 – Science, Technology, Engineering, Mathematics and Critical Foreign Language Education, Subchapter IV – Alignment of Education Programs. Section 6401 (e) (2) (D):

(D) Required elements of a statewide p-16 education data system.--The State shall ensure that the statewide P-16 education data system includes the following elements:

(i) Preschool through grade 12 education and postsecondary education.--With respect to preschool through grade 12 education and postsecondary education—

(I) a unique statewide student identifier that does not permit a student to be individually identified by users of the system;

(II) student-level enrollment, demographic, and program participation information;

(III) student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs;

(IV) the capacity to communicate with higher education data systems; and

(V) a State data audit system assessing data quality, validity, and reliability.

(ii) Preschool through grade 12 education.--With respect to preschool through grade 12 education—

(I) yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b));

(II) information on students not tested by grade and subject;

(III) a teacher identifier system with the ability to match teachers to students;

(IV) student-level transcript information, including information on courses completed and grades earned; and

(V) student-level college readiness test scores.

(iii) Postsecondary education.--With respect to postsecondary education, data that provide—

(I) information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and

(II) other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

(E) Functions of the statewide p-16 education data system.--In implementing the statewide P-16 education data system, the State shall

(i) identify factors that correlate to students' ability to successfully engage in and complete postsecondary-level general education coursework without the need for prior developmental coursework;

(ii) identify factors to increase the percentage of low-income and minority students who are academically prepared to enter and successfully complete postsecondary-level general education coursework; and

(iii) use the data in the system to otherwise inform education policy and practice in order to better align State academic content standards, and curricula, with the demands of postsecondary education, the 21st century workforce, and the Armed Forces.

D. Purpose

The general purpose of the longitudinal data system is to identify the predictors of long-term prekindergarten through higher education student success – in other words, define "what makes a difference" in the academic experiences of students. The intention is to link data on students who graduate from a Minnesota public high school and attend a Minnesota post-secondary institution at the undergraduate level (approximately 40,000 high school graduates annually).

Students who might not be captured in the linkage would include:

- Those who graduate from a private Minnesota school (approximately 7 percent of Minnesota high school graduates annually or 5,000 students).
- Those who go to college from a home school environment (approximately 1 percent or 400 students).
- Those who did not graduate from high school but subsequently attend a postsecondary institution (approximately 2 percent or 1,300 students).
- Students who receive a GED (approximately 1 percent or 400 students).
- High school graduates who attend colleges or college programs that do not require a high school transcript for admission (examples would include private career schools or specific career programs such as cosmetology, truck driving, massage schools, culinary arts– approximately 2,000 postsecondary students).

- Students attending a Minnesota postsecondary institution who graduated from an out of state high school.

E. Research Examples

Three areas of research and analysis can be mined upon successful construction of the Minnesota Educational Longitudinal Data System (LDS). The data system will provide a comprehensive foundation for documenting the performance of students, schools, and colleges, while improving the ability to address questions about Minnesota's investment in education. Data alone cannot improve performance but it can support the careful consideration of issues and analysis leading to action.

Area one: System Performance Analysis

This research area focuses on the performance of the overall educational system, identifying aggregate performance at key points in time (e.g. high school completion, postsecondary participation). These data may also be used to focus on student performance in relationship to criteria established by Minnesota and provide a common rubric for evaluating student and system performance.

Research questions in system performance analysis may include:

- Who participates in higher education upon high school graduation? Who does not participate? Why do these students not participate? What variables can assist us in identifying who these students are?
- What are the patterns of course completion for successful students? What are the variables related to persistence? To completion?
- Can teacher education programs be evaluated and improved through the use of student data?
- What types of students pursue STEM programs in college based on their high school preparation?
- What percentage of students in high school tech prep programs go to college? What types of college do they attend? What programs do they pursue?
- How do school districts high school students fare in postsecondary education? Are they persisting and completing? Do they require remedial education? What kinds of programs, majors and degrees do they complete?
- What is the correlation between MCA scores, ACT scores and college completion?

Area two: Educational Attainment Gap Analysis

This research area focuses on the performance of students defined by their demographic, socioeconomic or geographic characteristics. While certain educational transition points for key groups (e.g. students of color) has been analyzed, longitudinal information is currently not available to identify how performance lags early in the pipeline (e.g. failure to graduate from high school) impact later measures of educational success.

Research questions in educational attainment gap analysis may include:

- What percentage of students who are family-income eligible for the food program in prekindergarten attend elementary schools similar to their prekindergarten environment.
- What percentage of free and reduced price lunch kindergarten students require remediation during the kindergarten year and beyond?
- What are the retention, graduation and completion rates for key racial/ethnic groups? Key geographic groups?
- What percentage of free and reduced price lunch high school students attend college based on race/ethnicity, high school, school district? What type of colleges do free and reduced price lunch high school students attend? How do they persist in college? What type of postsecondary programs do free and reduced price lunch high school students pursue?

Area three: Program and Intervention Analysis

This research area focuses on evaluation of educational programs and interventions designed to increase educational attainment. A number of large and small scale intervention programs exist to promote equality of educational outcomes. Some programs have sought to raise the academic achievements and educational aspirations of selected students from lower socioeconomic backgrounds and increase the numbers of these students graduating from high school, enrolling in college, and graduating from college. Although these intervention efforts have been in operation for many years, little is known about their collective impact on the student population. State level financing of such programs would benefit from targeted data on program participants and their educational outcomes compared to peer group performance.

Research questions in program and intervention analysis may include:

- What courses, curriculum and programs lead to college participation and completion? Are there particular courses (like calculus) or academic pathways (like PSEO) that are more likely to lead to academic success in college?
- What is the high school course taking pattern for student needing remedial coursework upon entry into postsecondary education?
- How do students completing concurrent enrollment courses (PSEO, AP, IB, CITS) perform in higher education? Does this pattern vary by program?
- What percent of GEAR Up participants enroll in higher education? What variables are related to enrollment?
- Is there a correlation between participation in college access programs while in high school and college participation, persistence and completion?

F. Data Exchange Process

The following process for matching data from the Minnesota Department of Education and the Minnesota Office of Higher Education has been developed. The data matching process maximizes data security, complies with federal and state regulation, and builds a system that can accomplish the intended research outcomes.

Construction of Data Files

A. **Responsible person:** Both MDE and OHE will appoint LDS IT staff with access to full student record information from each agency to construct:

   1) a reference table of personally identifiable data used only in the process to match MDE students with OHE students, and

   2) data files used to populate the LDS System limited to the variables identified by the LDS Research and Data Advisory Committees as approved by the LDS Governing Body.

B. **Matching Student Records:** Respective IT staff produce a reference table used to match students between OHE and MDE. These reference tables will be exchanged between MDE and OHE using existing secure file transfer protocols and technology. The reference table will include personally identifiable information that is stored in both agencies (e.g. first name, last name, date of birth, year of high school graduation, high school, and MARSS number).

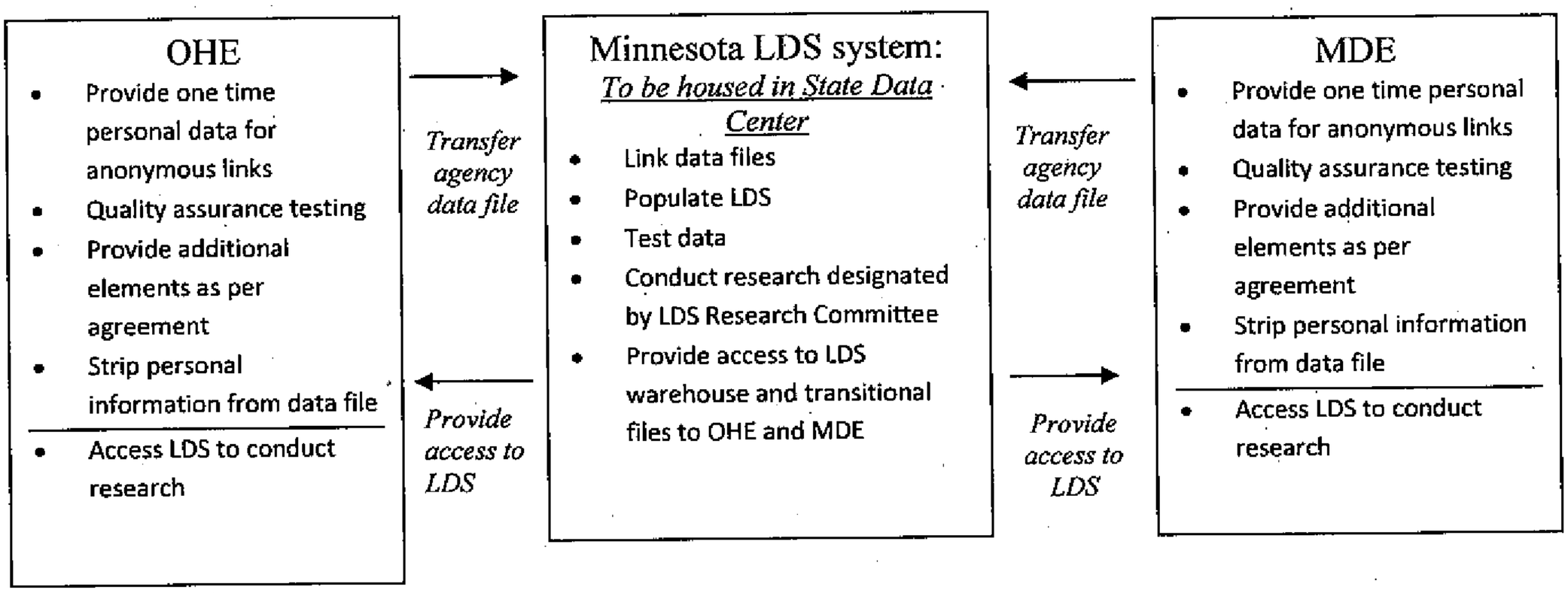
   Probabilistic matching methodology will be used to determine how many and which of the student records in both reference tables match exactly and the likelihood that the two records are the same student.

C. **Assign Anonymous ID:** Each student record in the reference table will be assigned a random anonymous identification number referred to as the "LDS Number". The LDS number shall be sent to the originating agency to be used to populate the LDS data files. After the match process is complete the linked reference table data including all personally identifiable data shall be destroyed.

   Personally identifiable data other than the LDS anonymous student identification number shall never be transferred to the LDS system.

D. **Timeframe:** Data exchange shall occur at a minimum yearly – upon the conclusion of each academic year/fiscal year once data sets are finalized.

Data Exchange Process Visual



G. Data Governance Structure

The longitudinal data system will be jointly managed by the Minnesota Office of Higher Education and the Minnesota Department of Education. Federal funding will be sought to hire a project manager. Federal grant funding will also be sought to build the capacity at both agencies to effectively manage the longitudinal data system.

Governing Board: The Governing Board will be a subgroup of the P-20 Council including representatives from MDE, the Office of Higher Education, the business community, higher education systems, K-12 schools, the Minnesota Department of Employment and Economic Development and citizens. Responsibilities will include:

1. Sign off on data security protocols and data transfer procedures.
2. Appoint and/or identify members for the LDS Research Committee and the LDS Data Advisory Committee.
3. Identify LDS research and evaluation topics for the Research Committee
4. Review and approve research and evaluation proposals set forth by the Research and Data Committees.

LDS Research Committee: The LDS Governing Board will appoint representatives from the University of Minnesota, Minnesota State Colleges and Universities, private colleges (MPCC, MCCA), the Minnesota Department of Education, the Department of Employment and Economic Development, the Governor's office, and Office of Higher Education to serve on this committee. Responsibilities will include:

1. Review research and evaluation proposals to make recommendations to the Governing Board for approval.
2. Develop research and evaluation proposals for utilizing the LDS data to further state research goals set by the Governing Board.
3. Provide technical expertise and consultation on research methodologies.
4. Develop protocols for maximizing validity and reliability of LDS data.
5. Ensure the use of protocols for allowing non-MDE and non-OHE staff access to LDS data.

LDS Data Advisory Committee: The LDS Governing Board in conjunction with the LDS Research Committee will appoint representatives from the University of Minnesota, Minnesota State Colleges and Universities, private colleges (MPCC, MCCA), the Minnesota Department of Education and Office of Higher Education to serve on this committee. Responsibilities will include:

1. Review technical specifications of research and evaluation proposals to make recommendations to the LDS Research Committee for approval.
2. Provide technical expertise and consultation on data structure and data linkages.
3. Provide technical expertise for the development of a secure data interface for users.
4. Develop protocols for maximizing validity and reliability of LDS data.

Minnesota Department of Education and Minnesota Office of Higher Education responsibilities include:

1. Secure sustainable funding for the LDS research coordinator and the IT staff needed to support operational maintenance of the LDS infrastructure.
2. Hire *LDS System Coordinator(s)*.
3. Comply with required data file construction and testing procedures.
4. Serve on the Governing Board, the Research Committee and the Data Advisory Committees.
5. Work with Research and Data Advisory Committees to develop protocols for utilizing the LDS data to further research goals.
6. Conduct research utilizing LDS data.

LDS System Coordinators responsibilities include:

1. Work with *Governing Board* and *Agencies* to identify funding opportunities to support the LDS work.
2. Work with IT staff on data security, data transfer, and data file construction issues.
3. Maintain awareness and compliance with FERPA and other relevant laws.
4. Work with the Data Advisory Committee to coordinate the data management including: set data standards, define data elements, document data processes, identify file specifications).
5. Facilitate research utilizing the LDS data.
6. Coordinate the *LDS* Research Committee and LDS Data Advisory Committee.
7. Represent Minnesota at national conferences related to P-20 systems and research.
8. Serve as spokesperson for LDS system.
9. Assist agencies in public relations aspects of LDS in communication with school districts and institutions.

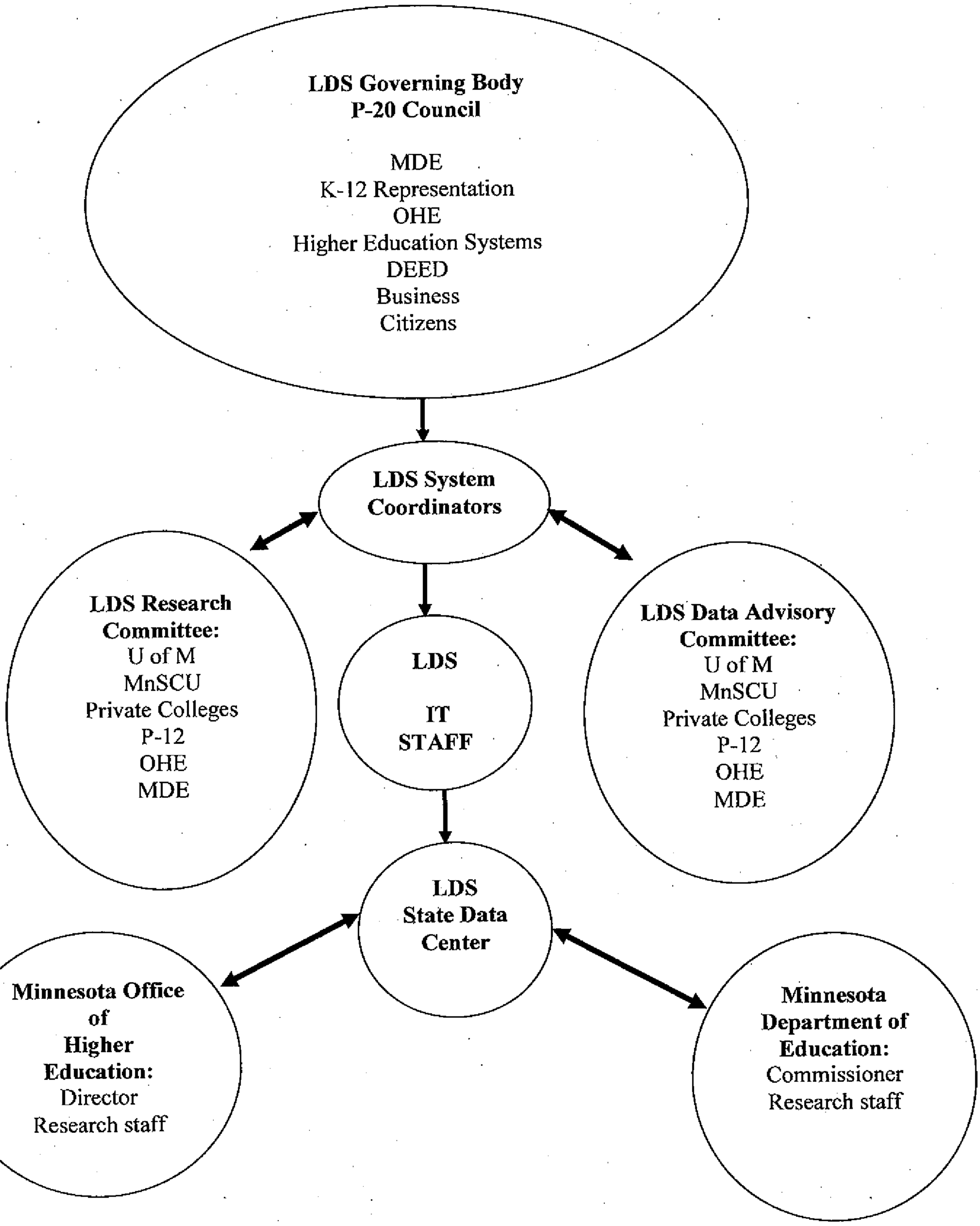
LDS IT Staff (at both Minnesota Department of Education and Minnesota Office of Higher Education) responsibilities include:

1. Utilize anonymous student identification number algorithm.
2. Assure data security protocols (includes identifying levels of access for agency users).
3. Construct and test required data files.
4. Manage data (set data standards, define data elements, document data processes, identify file specifications.
5. Serve on the *LDS Data Advisory Committee.*
6. Assist in utilizing the LDS data to further agency research goals.
7. Manage LDS data system including development of end-user interfaces and automated report structures.
8. Provide technical expertise and consultation on data file construction, data linkages, and research methodologies.

State Data Center responsibilities include:

1. House the LDS data system and related server equipment.
2. Responsible for data system related issues including hardware, security, user access, etc.

Data Governance Structure Relationships



H. Data Elements

Baseline Student Data Variable List for P-20 Longitudinal Data System

The Office of Higher Education currently has a student record data base on all students enrolled during the fall at postsecondary institutions eligible to participate in Minnesota-funded student financial aid programs. The Minnesota Department of Education has a data base on students enrolled in public schools. The P-20 Longitudinal Data System (LDS) would contain data from OHE and MDE for research. Below are baseline data variables currently collected in each agency to be used to populate the LDS and a list of recommended variables to be added in the future. **Note**: some of the variables listed below would only be used to match student records between OHE and MDE and would not be contained in the LDS system. The proposed structure of the LDS will contain a random anonymous identifier.

Student Data Variables Currently Collected to be Used in the LDS

Minnesota Office of Higher Education	Minnesota Department of Education
Attendance Data	**Attendance Data**
College attending (name)	School of attendance
Type of college (public, private, etc.)	School district (where student goes to school)
	School type (Title I eligible, charter, alternative learning center)
Fiscal year of data collection	Academic year
Term (fall enrollment only)	
Transfer Institution Code	
Student Demographic Data	**Student Demographic Data**
Name (first, middle, last)	Name (first, middle, last)
Birth date	Birth date
Gender	Gender
Racial/ethnic origin	Racial/ethnic origin
County of residence (at time of admittance)	Resident district (where student lives)
State of residence (at time of admittance)	Home primary language
Citizenship/immigration status	MARSS Student ID Number
MARSS Student ID Number	
Student Enrollment Data	**Student Enrollment Data**
Student level (freshmen/sophomore/etc.)	Grade level
Registration type (new student/continuing/transfer, etc.)	Attendance days
Enrollment status (enrolled full-time or part-time)	Membership days (days a student is enrolled)
Degree/certificate seeking (yes/no)	Last location of attendance (determines student mobility)
MN high school of graduation/GED/did not graduate	Withdrawal status
Year of high school graduation	Graduation status
	Year of high school graduation
Academic Performance and Testing Data	**Academic Performance and Testing Data**
Credits taken	MCA test results
Remedial credits	ACT test scores
Accumulated credits earned	SAT test scores
Transfer credits earned	

Baseline Student Data Variable List for P-20 Longitudinal Data System

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Student Data Variables Currently Collected to be Used in the LDS	
Minnesota Office of Higher Education	**Minnesota Department of Education**
Academic Performance and Testing Data (cont') Major 1 (program code of 1st major) Major 2 (program code of 2nd major) Degree level (diploma/associate/bachelor/etc.) College graduation date Academic award received Date academic award received	**Special Services** Gifted/talented participation PSEO participation Economic indicator (free/reduced lunch) Limited English services Title I student eligibility

Proposed NEW Student Data Variables to be Collected	
Minnesota Office of Higher Education	**Minnesota Department of Education**
Advanced standing credits granted for new students College GPA	High school core course curriculum GPA Participation in college access programs (TRIO, Admission Possible, etc.) Participation in college preparatory courses (listed individually) Post Secondary Enrollment Options (PSEO), Advanced Placement (AP), International Baccalaureate (IB), College in the Schools (CIS), Concurrent Enrollment, College Level Examination (CLEP) Class Rank

Updated August 19, 2009 as agreed upon by OHE and MDE

I. Critical Next Steps in 2009

Several steps need to be addressed within Minnesota to advance the longitudinal data system.

- Share the vision of comprehensive data system, its uses and benefits with school districts, lawmakers, postsecondary leaders, teachers and others.
- Write a federal grant to get a system up and running, including a user interface.
- Amend data sharing agreements between the Office of Higher Education and institutions.

J. Attachments

- White paper, prepared by the Minnesota Department of Education, detailing the linking methodology to be used in creating the anonymous student links to provide data for the data warehouse.

- Data sharing agreement between the Minnesota Department of Education and Minnesota Office of Higher Education. Signed on September 1, 2009.

- Enrollment data sharing agreement between Office of Higher Education and postsecondary institutions (*to be included when amended*).

- Stakeholder meeting dates and stakeholders who reviewed the charter.

STATE OF MINNESOTA
INTERAGENCY DATA SHARING AGREEMENT
ATTACHMENT A
MINNESOTA EDUCATIONAL LONGITUDINAL DATA SYSTEM (LDS)

The parties to this agreement are the Minnesota Department of Education (MDE) and the Minnesota Office of Higher Education (OHE).

MDE and OHE will only share data in the situations outlined in this attachment and as authorized in the signed, attached interagency data sharing agreement. Studies conducted using data from the Minnesota Educational Longitudinal Data System (LDS) under this agreement will be approved in writing by the LDS Research Committee and the LDS Governing Body.

MDE and OHE will use specified personal identifiers to assign a random anonymous identifier to each student record for the purposes of creating the Minnesota Educational Longitudinal Data System (LDS). Categories of data elements are listed below for the purposes of research and evaluation studies to examine the transition of students from high school to postsecondary institutions. OHE and MDE will use student data to develop summary district, consortium, and state reports using only aggregate information.

Categories of data elements to be shared as part of the LDS as allowed under Chapter 298: Sec.2. *M.S.* 2006, section 13.32 Subd.11.

Attendance data, including name of school or institution, school district, year or term of attendance, and term type;

ATTENDANCE DATA
Data elements in this section may be used to identify and locate educational institutions which a student has attended or is attending. In the case of secondary schools, this generally refers to the school attended last or from which the student graduated. For postsecondary institutions, identification information can be included for any institution which the student previously attended, or which awarded the student a degree, diploma, or certificate; or from which transfer award units have been accepted by the institution currently attended. Generally, the term "institution" refers to the organization offering educational programs and/or instruction to students. This data also includes the year and academic term of attendance.

Student demographic and enrollment data;

STUDENT DEMOGRAPHIC DATA
Data elements in this section can be used to identify a person, (e.g., a student, his/her parents, or his/her spouse) and to describe various personal characteristics of that individual (e.g. race, gender, age).

STUDENT ENROLLMENT DATA

The data elements of this section may be used to describe the process by which a student enters an institution and/or subdivision of the institution, a process—frequently including the payment of tuition and/or fees—which results in the student's name being entered into the rolls, records, and/ or files of the institution. Data elements in this section may also be used to provide information about a student's aspirations, with respect to future education and career. Educational aspirations are expressed by, the type of formal award a student seeks or his/her objectives in attending a postsecondary institution.

Academic performance and testing data;

ACADEMIC PERFORMANCE AND TESTING DATA
Data elements in this section may be used to describe various aspects of a student's activities and accomplishments which are directly related to educational programs of the institution. Included are terms which describe the courses taken by the student, such as course name, grades (marks), and award units received for successful completion of courses. Also included are standardized test data.

Special academic services received by a student.

SPECIAL ACADEMIC SERVICES
Data elements in this section may be used to describe activities whose primary purpose is to contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Included are elements which indicate the student's participation in gifted and talented programs, concurrent enrollment, special education, free and reduced price lunch, limited English language programs, and supplemental services.

Footnote 7- MCCC Description

Minnesota Common Course Catalogue

Introduction:
The Minnesota Common Course Catalogue (MCCC) is a K-12 index of all courses that could be offered by school districts across Minnesota. It is based on the *Secondary School Course Classification System: School Codes for the Exchange of Data* (SCED) created by the National Center for Education Statistics (NCES). MCCC is an integral part of a larger movement to upgrade and modernize MDE data collection processes. In many instances, this will eliminate many of the current, individual MDE data collections done for a variety of program areas including NCLB, Carl Perkins, Highly Qualified Teachers and various financial data collections.

MCCC will not limit or dictate course offerings within school districts. Districts and in some cases individual schools, however, will need to match local course offerings to the MCCC course descriptions and identify the academic standard benchmarks addressed in them. The primary purpose of a common course system is to make it easier for school districts and the state as a whole to maintain longitudinal student records and transmit student course-taking information from one school district to another and to MDE. A secondary benefit is the standardization of student course-taking information for those agencies who evaluate student transcripts for postsecondary admission and research purposes.

More specifically, MCCC will achieve the following:

- Support reduction of school district data reporting requirements to MDE
- Encourage the use of course-taking information in evaluation of and research about student achievement
- Facilitate use of electronic student transcripts and reduce the cost and burden of transcript transmission and research studies
- Support longitudinal student information systems
- Enable comparison of course offerings among school districts
- Encourage interoperability of student information and other data management systems by providing a standard for education software designers and vendors

Prior Work in Common Course Catalogues
In 1995, NCES and the Association of College Registrars and Admission Officers attempted a less successful version of a common course catalogue, the *Pilot Standard National Course Classification System for Secondary Education*, in an attempt to achieve the same objectives as above. Technology for maintaining electronic records, however, was in its early stages. Today, nearly all schools operate electronic systems to maintain student records, and most secondary schools use electronic scheduling with some type of course coding to place students in courses. The SCED coding system and course descriptions are also a simplification and improvement over the previous 1995 attempt. These two changes make a statewide common course catalogue that can be linked to a national model more viable. Using the SCED course codes and descriptions ensures comparability among electronic transcripts when students move from one district to another and when sending local district data to a statewide information system.

Footnote 12- Schedule of Stakeholder Groups

Enterprise Email

Sample Service Level Agreement

July 27, 2009

Office of Enterprise Technology (OET)

Enterprise Service Level Agreement for Enterprise Email

This Enterprise Service Level Agreement (SLA) is made between **the Office of Enterprise Technology (OET)** and **State of Minnesota Enterprise Users** regarding delivery and support of the IT services listed in Section 1.

The agreement is effective from the date of the user email account activation and remains in force, to include approved amendments, until the user email account deactivation. Amendments approved by the Office of Enterprise Technology (OET) and its user advisory board (precise governance to be determined) will be appended to this agreement using the format provided at the end of this document.

Sample Table of Contents

1.0 Service Description

This SLA includes the following services to be delivered by OET and its business partners.

Service	Description
Enterprise Email **a. Email Service**	Enterprise Email is a SINGLE Enterprise Email and Calendaring system including the capability to integrate with existing state directories to preserve a single-sign on authentication.
b. BlackBerry Gateway	Support the interface to the email system which utilizes the BlackBerry gateway.
Storage	The Enterprise Email service provides a standard mailbox storage size of 100 Megabytes (MB) per user. The agency can increase this amount to 200MB or 500 MB on a per-user basis. The user is responsible for managing his/her mailbox within the assigned mailbox storage maximum. The 100Mb, 200 Mb, and 500Mb can be set as standard mailbox sizes; you can also assign individual mailboxes at 1Gb, 2Gb, and 5Gb (but you can't set all the mailboxes at the 1Gb, 2Gb, 5Gb size as a standard). For aggregated amounts over and above the standard storage allocation (the number of users x 100 MB), the agency will be billed in 100 MB increments, rounded up to the nearest 100 MB.

2.0 Service Hours & Service Availability (Uptime)

OET will:

- Maintain and repair all hardware related to delivering the services to be performed in this Agreement and
- Coordinate service maintenance with the customer
- Ensure a secure and patched enterprise infrastructure, including enterprise secure e-mail

2.1Change management

Change Management is the process of receiving, reviewing, assessing, logging, tracking, and communicating all changes made to OET's data center processing environment and services. The goal of change management is to plan and manage changes to the processing environment and services with minimal impact on availability. OET has set up notification lists for communicating and viewing change management activities to customers.

All scheduled OET Enterprise downtimes are announced through a change notification list, and such changes will be considered as part of the accepted scheduled downtime unless there is a mutually agreed to change.

The OET Change Management team will handle all exceptions to the above on a case-by-case basis.

3.0 Maintenance

3.1 Scheduled Maintenance

To ensure optimal performance of the email service, OET will perform routine maintenance on a regular basis. The server unavailability will be excluded from the uptime calculations. The maintenance is performed during the time specified in the table on page x. OET will provide customers with advance notice of maintenance.

3.2 Emergency Maintenance

Under certain circumstances OET may need to perform emergency maintenance, such as security patch installation or hardware replacement. If OET is unable to provide customer with advanced notice in case of emergency maintenance, OET will provide after the fact follow-up for the event.

4.0 Customer Service

4.1 OET – Service Desk

Minnesota Office of Enterprise Technology (OET) Service Desk shall provide customer services in the form of a Level-2 Technical Assistance and Request Fulfillment Service Desk. The users' first point of contact for the resolution of issues will be through the customer Help Desk (Level-1) for initial support services, including initial analysis and Incident determination. After determining that the Incident is outside the customer's domain, the customer (level 1) support at the customer site may contact the OET Service Desk (Level-2). OET's Level-2 Service Desk shall be responsible for operating a single point of contact in support of incidents or requests for OET-provided services for State of Minnesota Agencies. The OET Service Desk shall provide support to the customer for all services and activities included in the scope of the agreement.

All Service Desk Incident Management policies and practices apply to Enterprise Email the same as they do for other OET provided services. For more information see www.oet.state.mn.us.

4.2 Service Ordering and Feature Changes

The Service Desk processes service requests to add, delete, or make feature changes to services. Additionally, the Service Desk maintains customers' contact and account information. Requests and account management can be made via the Web for certain services.

4.3 Account Manager

OET will assign an account manager to the customer, if not already assigned, to coordinate the OET and customer relationship, provide consultation; needs assessment; analysis and design of cost-effective solutions; develops proposals and service level agreements; assists with writing procurement specifications and facilitates implementation of services when necessary. The account manager will coordinate with other OET staff and resources as needed on a case-by-case basis.

5.0 Financial

5.1 Professional Service Fees

The professional fees payable for performing the services contained in the Agreement are in accordance with the OET rate schedule, this Agreement, and any subsequent amendments thereto or developed as part of the annual or mid-year rate-setting processes. Annual or mid-year rates or fee structures are

approved by the commissioners of Minnesota Management and Budget and OET. A complete schedule of rates is available on OET's website at www.oet.state.mn.us.

5.2 Invoices

OET will submit invoices for professional service fees services. Invoices will be submitted consistent with OET's normal invoicing cycles for the previous month's services.

In the event of termination of this agreement, OET will submit an invoice for the unbilled period up to the effective date of termination for any services rendered as part of the service level agreement to ensure OET fully recovers its costs.

To the extent there are costs associated with any termination; OET will submit a detailed cost claim within 60 days of date of the termination notice.

Any financial issues or disagreements that cannot be resolved mutually by the Authorized Representatives will be escalated to OET's Chief Financial Officer (CFO) and the Customer's CFO or equivalent.

5.3 Authorization and Payment Terms

Customer will promptly pay OET after OET submits an itemized invoice for services performed and Customer's Authorized Representative accepts the invoiced services. Customer will complete payment within 30 days upon receipt of an invoice from OET in accordance with the State Prompt Payment law.

5.4 Cost Information

For cost information see the OET Service Catalog at www.oet.state.mn.us

5.5 Effective Date for Invoicing

Charges for services covered by this document will begin upon completion of implementation.

6.0 Security

Security controls are taken in consideration for all aspects of OET service provision. Information security addresses protection for operating system, applications, and other software for mainframe and hosted services housed in OET data centers and related sites in various ways.

7.0 Information Security

In carrying out the duties of this service level agreement, OET will be maintaining subscriber emails that contain data that falls within all Minnesota Government Data Practices Act classifications (public, private, nonpublic, confidential, or protected nonpublic), as well as federal data. Access to the content of emails of other agencies by OET staff, contractors, or agents is prohibited, unless specifically authorized in writing by that agency. OET agrees to deploy appropriate measures to prevent unauthorized access by any person.

Any data practices request received by OET for disclosure of emails maintained by OET must be routed to the specific agency to which the request applies for response.

OET will immediately report to the customer any privacy or security incident regarding the content of emails of which OET becomes aware. For purposes of this SLA, "security incident" means the attempted or successful unauthorized access, use, disclosure, modification or destruction of information or interference with system operations in an information system. "Privacy incident" means violation of the

Minnesota Government Data Practices Act (MGDPA) and/or HIPAA Privacy Rule (45 CFR Part 164), including, but not limited to, improper and/or unauthorized use or disclosure of not-public information, improper or unauthorized access to or alteration of public data, and incidents in which the confidentiality of the information maintained by OET has been breached. OET will ensure that any agents (including contractors and sub-contractors), analysts, and others deployed in providing these services, agree in writing to be bound by the same restrictions and conditions that apply to OET with respect to the content of emails.

Determinations to notify and notifications to data subjects of security or privacy incidents is the responsibility of the customer.

8.0 Service Levels

8.1 Service Level Objectives

Metric	Threshold	Definition
Mailbox Service Availability	99.9% availability* Formula: (total time – outage time)/total time **not including scheduled maintenance*	Measures service availability. Combined with other metrics, gives an end-to-end view of messaging as a managed service
Mail Flow	90% of messages received in less than 90 seconds	Measures the amount of time it takes to deliver a synthetically generated message
Traffic	Number of messages sent/received	Measures the email volume
Customer Satisfaction	80% positive approval rating through customer surveys	Measures how the customer perceives the value
Average Time to Restore Level 2 incidents	Level 2 – Medium 2 business days Level 2 – High 8 hours Level 2 – Critical 4 hours	Measures the speed of incident resolution by the OET Service Desk

8.2 Quarterly Service Review Meetings

OET and the customer will meet quarterly to review service level achievements and discuss related topics such as

- Service performance levels
- Maintenance and support performance levels
- Installation service performance
- System issues
- Administrative Issues
- Security Issues
- Changes proposed
- Incident/Problem/Request management review
- Future technology planning
- Costs/volumes

Agendas will be established by the OET's account manager and the customer's authorized representative and should consider for inclusion the above list of topics. In addition, the agenda should include any problem, incident, or other matters escalated to the senior management level.

9.0 Authorized Representatives

Each party's Authorized Representative, or successor, has responsibility for managing the compliance of this Agreement with authority to consider, accept, or reject amendments (refer to Appendix 3: SLA Amendments) to this agreement. OET will designate an account manager to provide ongoing liaison with the customer's primary authorized representative or designee, facilitate delivery of services to the Customer; provide support of customer IT projects, ensure communication between departments, and timely resolution of issues.

Footnote 8- Sample Service Level Agreement

Stakeholder List		
Legislature	Minnesota House of Representatives	Representative Mindy Greiling
	Minnesota House of Representatives	Representative Carlos Mariani
	Minnesota House of Representatives	Representative Nora Slawik
	Minnesota House of Representatives	Representative Carol McFarlane
	Minnesota House of Representatives	Representative Randy Demmer
	Minnesota House of Representatives	Representative Keith Downey
	Minnesota Senate	Senator LeRoy Stumpf
	Minnesota Senate	Senator Chuck Wiger
	Minnesota Senate	Senator David Hann
	Minnesota Senate	Senator Gen Olson
Higher Education	University of Minnesota	Robert Bruinicks
	MnSCU	James McCormick
	Private Colleges	David Laird
Education Organizations	Minnesota Association of School Administrators	Charlie Kyte
	Minnesota School Boards Association	Bob Meeks
	Minnesota Association of Elementary Principals	Fred Storti
	Minnesota Association of Secondary Principals	Joann Knuth
	Association of Metropolitan School Districts	Scott Croonquist
	Minnesota Rural Education Association	Lee Warne
	Minnesota Office of Higher Education	David Metzen
	Minnesota Association of Charter Schools	Eugene Piccolo
	Charter School Authorizers	Beth Topoluk
	Education Minnesota	Tom Dooher
	Minnesota PTA	Jim Meffert-Nelson
	Minnesota Board of Teaching	Karen Balmer
LEAs	St. Louis Park	Debra Bowers
	Staples	Mark Schmitz
	Minneapolis Public Schools	Bill Green
	St. Paul Public Schools	Suzanne Kelly
	Edina Public Schools	Ric Dressen
	Fergus Falls Public Schools	Jerry Ness
Business	Minnesota Chamber of Commerce	David Olson
	Minnesota Chamber of Commerce	Stacia Smith
	Minnesota Business Partnership	Charlie Weaver
	Minnesota Business Partnership	Jim Bartholomew
	Minnesota High Tech Association	Kate Rubin
	Itasca Project	Mary Brainerd
Non-Profits	Citizens League	Sean Kershaw
	Volunteers of America	Justin Testerman
	PACER	Paula Goldberg
	Minnesota Minority Education Partnership	Jennifer Godinez
	Education Evolving	Curtis Johnson
	Council on Asian-Pacific Minnesotans	Kao Ly Her
	Council on Black Americans	Lester Collins
	Minnesota Indian Affairs Council	Annamarie Hill
	Rosa Tock	Chicano Latino Council
Foundations	Bush Foundation	Peter Hutchinson
	Bush Foundation	Susan Heegaard
	Minneapolis Foundation	Sandy Vargas
State Government	Minnesota Department of Education	Alice Seagren
	Minnesota Department of Education	Chas Anderson
	Governor's Office	Lori Grivna
Legislator Lists		
Date	**Time**	**Legislator(s)**

Nov. 2	3:45 PM	Sen. Tarryl Clark
Nov. 3	11:45 AM	Sen. Kathy Saltzman
Nov. 9	3:00 PM	Rep. Jim Davnie
Nov. 2	10:00 AM	Rep. Mindy Greiling
Nov. 16	4:30 PM	Rep. Carlos Mariani
Nov. 9	10:30 AM	Rep. Nora Slawik
Nov. 5	1:00 PM	Sen. Chuck Wiger
		Sen. Sandy Rummel
Nov. 5	3:00 PM	Sen. Patricia Torres Ray
Dec. 3	10:30 AM	Sen. Larry Pogemiller
Nov. 9	1:30 PM	Rep. Margaret Anderson Kelliher
Nov. 24	9:30 AM	House GOP Mtg.
		Senate GOP Mtg.
Nov. 10	11:45 AM	Rep. John Benson
Nov. 24	1:00 PM	Rep. Kathy Brynaert
Nov. 10	2:30 PM	Rep. Denise Dittrich
Nov. 10	12:00 PM	Rep. Jerry Newton
Nov. 16	2:30 PM	Rep. Kim Norton
Nov. 17	1:00 AM	Rep. Sandy Peterson
N/A		Rep. John Ward
Nov. 19	3:30 PM	Rep. Robin Brown
Nov. 12	3:00 AM	Rep. Will Morgan
		Rep. Connie Doepke
Nov. 17	1:45 PM	Sen. Terri Bonoff
Nov. 16	1:45 PM	Sen. Dan Skogen
Nov. 16	1:00 PM	Sen. Tom Saxhaug
Nov. 10	10:00 AM	Sen. Mary Olson
Dec. 1	10:30 AM	Sen. Chris Gerlach
Nov. 30	12:30 PM	Sen. Amy Koch
Dec. 1	9:00 AM	Sen. Geoff Michel
Nov. 30	9:30 AM	Sen. Claire Robling
		Small Group DFL
Nov. 17	3:00 PM	Representatives

Chas Anderson	Amy Walstien		208 State Capitol		
Chas Anderson	Amy Walstien		306 State Capitol		
Chas Anderson	Amy Walstien or Lisa		545 State Office Bldg		
Alice Seagren	Amy Walst	Doug Scot	381 State Office Bldg		
Alice Seagren	Amy Walstien or Lisa		563 State Office Bldg		
Alice Seagren	Amy Walstien or Lisa		403 State Office Bldg		
Alice Seagren	Amy Walstien or Lisa		Securian		
Alice Seagren	Amy Walstien or Lisa		323 State Capitol		
Alice Seagren	Amy Walstien		124 State Capitol		
Alice Seagren	Amy Walstien or Lisa		235 State Capitol		
Alice Seagren	Amy Walstien or Lisa		463 State Office Bldg.		
Alice Seagren	Amy Walstien or Lisa		Barnidge		
Chas Anderson	Amy Walstien				
Karen Klinzing	Amy Walstien		Conference call		
Karen Klinzing	Amy Walstien or Lisa		371 SOB		
Karen Klinzing	Amy Walstien or Lisa		331 SOB		
Karen Klinzing	Amy Walstien or Lisa		387 SOB		
Karen Klinzing	Amy Walstien or Lisa		345 SOB		
			Attended a group mtg.		
Chas Anderson	Amy Walstien		Conference call		
Karen Klinzing	Amy Walstien		Conference call		
Karen Klinzing	Amy Walstien		325 Capitol		
Karen Klinzing	Amy Walstien or Lisa		145 Capitol		
Karen Klinzing	Amy Walstien or Lisa		124D Capitol		
Morgan Brown	Amy Walstien or Lisa		123 State Capitol		
Karen Klinzing	Amy Walstien		Conference Call		
Karen Klinzing	Amy Walstien		Conference Call		
Karen Klinzing	Amy Walstien		Conference Call		
Karen Klinzing	Amy Walstien		Conference Call		
Alice Seagren	Amy Walstien or Lisa		Barnidge		

Footnote 16- DEED Data Plans

Footnote 16- DEED Data Plans

DEED Statement for Dept of Education Grant Application

Statewide Longitudinal Data Systems

***Justification for DEED's involvement:**

A longitudinal database linking educational records with employment records would allow Minnesota policy makers and program planners to better understand the vital connection between educational experience and employment success. Such an understanding would provide insight into many important questions heretofore not available, including:

- What educational and training characteristics predict positive employment outcomes? What jobs, in which industries in which areas and at what wages, are new graduates and other training program completers taking?

- What are the subsequent employment experiences (upward wage mobility, job hopping and tenure, unemployment spells) of participants in and graduates and completers of various educational programs/institutions? What educational characteristics explain these experiences? How do they compare to subgroups with different educational attainment?

- What educational background and experience best prepares individuals to transition between occupations as the demands for skills and knowledge change in a dynamic economy? Which characteristics of those programs that provide for successful occupational mobility, including moving from low-wage to higher wage jobs, can be adopted by less successful programs?

- As measured by increased wages and resultant tax revenues, what is the return on investment of various educational programs? What can variability in these returns on investment tell us about imbalances between the supply of newly minted graduates and the demand for their educational credentials and abilities?

- Are graduates of our educational institutions taking jobs in Minnesota at rates comparable to other states, or is Minnesota experiencing a 'brain drain'? Are some programs and/or institutions more prone to this than others? Are there characteristics (personal or institutional, existent or missing) that can reduce the tendency of educated workers to leave the state?

- What are successful strategies for adult learners and incumbent workers with work experience that enter training and then re-enter the workplace? What do these strategies tell us about the return to life-long learning efforts and the optimal characteristics of such efforts?

One of DEED's primary objectives is to move the unemployed into gainful re-employment as effectively and efficiently as possible. In many instances this requires enrollment in training programs, and in others it means providing needed job seeking support. In each case, knowledge of the combinations of educational background and re-employment services that are most likely to yield favorable outcomes would be invaluable in meeting this important goal. A similar effort has been in place for years – DEED uses information on individuals' work and layoff experiences to identify factors that can be used to predict difficulty in finding re-employment following a layoff. These factors are then applied to each individual filing for unemployment benefits, and when one has characteristics that predict difficulty finding re-employment, additional job seeking services are offered. Considering the importance of education for employment success, adding information on educational background would greatly improve DEED's ability to target these services toward those individuals most in need of them.

DEED also provides information to employers seeking to expand or relocate on the availability of skilled workers around a potential site. Numerous studies report that access to an adequate pool of workers is among the top determinants of the success of a business, and thus is one of the primary considerations when relocation or expansion is being decided. Information on the educational background of workers in an area would be invaluable to those firms looking at that area and certainly to DEED's mission to expand employment opportunities across the state.

***What would DEED have to do to support the system?**

DEED is in a position to provide employment and wage data that could be linked to educational records by a probabilistic matching algorithm using such variables as first name, middle initial, last name and employment location. DEED also has individuals' SSNs which may be used to attach other demographic information (such as DOB and gender) that could be included to improve the matching success. Efforts to include this additional information are still in progress.

DEED would also supply workforce related data from its thousands of re-employment and training program participants. These data could be used to evaluate adult training initiatives including remedial ABE-type training and work-related customized or credentialed training. These data could also be used to predict the need for remediation and as predictors of long-term success in the labor market.

DEED would also be able to provide expert explanation and interpretation of the many complex data elements provided to users through the Longitudinal Database System. Complete and

accurate knowledge of the data collection methods and subsequent informational content of the data is crucial to an appropriate application and interpretation of any forthcoming results.

***Actionable steps to be taken by DEED participants:**

- Develop timeline of key deliverables
- Determine key variables to facilitate data linkage
- Assist in design of data warehouse structure
- Propose any changes MN statutes necessary to accommodate data sharing
- Execute data sharing agreements
- Determine cost, budget, in-kind contributions, etc
- Engage an integrator (at least a project manager) to develop and implement LDS warehouse
- Develop and agree to rules of engagement, operating policies, access rights, and any other policies and procedural requirements that arise

MDE Policy Initiative 1- Start Early

DRAFT -Early Learning Data Elements

I. Existing Items That Could Support HS, SR, ECFE & Potentially Child Care

Demographics

DOB
Race/Ethnicity – Legacy & New Data Items
IEP Status - Primary Disability status
HHM – Homeless and Highly Mobile flag
Migrant – migrant flag
Primary Home Language
(Currently available? Out of home placement)

Enrollment Codes

EC – ECSE
PS – Screening

Kindergarten Schedule Indicator

A-G as currently listed

Last Location of Attendance

All except 06

Status End Codes

(Use these in a manner that does not impact gen ed revenue)

II. Proposed – Early Learning Elements

Early Learning Enrollment Codes (II.1)

Allow for overlapping records for the following and EC, PS & K:

HS – Head Start
FE – ECFE
PE – Other Parent Education
SR – School Readiness
PR – Private preschool
CC – Child Care
CA – Child Care Assistance
HV – is currently receiving public health home visiting
PV – Program-related home visiting (i.e. Head Start, School Readiness,

ECFE, etc.)

Early Learning Attendance (II.2)

Daily attendance reported in a manner similar to K-12 (total number of days per yr
Membership calculated based on child's planned program versus attendance (Note – need to determine i/t structure for planned program at child level.)

Early Learning Preschool Schedule Indicator (II.3)

[Note – this builds on K Schedule Indicators]
H Half-day 3 days/wk
I Half-day, 4 days/wk

Early Learning Parent Education Schedule (II.4)

XX meeting per week for XX weeks per semester

Early Learning Assessment Results (II.5) (Note – Internal discussion needed on how
to format this across program areas building on ECSE lessons learned)

Include at least one variable per domain for the Early Childhood Indicators of Progress (note – Birth to Three may vary)

Early Learning Transition to Kindergarten (II.6)

Y/N Child has experienced 7+ transition to kindergarten activities through coordinated early childhood/kindergarten events

Early Learning COSF (II.7)

[Dates?] COSF Timing
Date Entrance Part C
Date Exit Part C
Date Exit C/Entrance B
Date Entrance B
Date Exit B

1-7 Outcome 1 Rating
Y/N Outcome 1 Progress (exit only)
1-7 Outcome 2 Rating

Y/N Outcome 2 Progress (exit only)
1-7 Outcome 3 Rating
Y/N Outcome 3 Progress (exit only)

III. Non-MARSS Elements

Course Catalogue – Include Curriculums & Assessments used (leave space for 20 different curriculums and assessments each). Note – each assessment will need values ("items"?) for numerical information to be entered.

STAR – Include all teachers and non-licensed staff
(Note – need to define what we mean by highly trained encompassing formal and informal learning)
Include CLASS ratings (Social/Emotional Climate, Classroom Organization & Child Engagement, Instructional Support)
How often does EC staff meet with K staff for planning K transitions beyond required student meetings for ECSE and HS?

Class size and ratio – Is there a place to record this in STAR? Or is it more appropriate as a child variable reported once per year per environment?

Batch Uploads from:

- Head Start – Visions, HSFIS (?), ChildPlus, PICA's version
- IFSP/IEP approved vendors – upload outcome/goal statements, service grid data, progress notes and specific evidenced-based practices. This will support staff to review child outcomes in relation to goals without having to go on site.
- School Readiness – District level systems

	EI/ECSE Existing	EC Screening Existing	SR Proposed	ECFE Proposed (primarily parent focused)	HS Proposed
Target Children at Risk	Special Education Evaluation Status Special Ed Federal Instructional Settings		Economic Indicator Last Location of Attendance	Economic Indicator	Economic Indicator Last Location of Attendance
Begin Early	Child DOB	Child DOB	Child DOB	Child DOB	Child DOB
Yrs of Preschool & Length of Service	Special Education Evaluation Status Special Ed Federal Instructional Settings		Early Learning Attendance (II.2) Early Learning Preschool Schedule Indicator (II.3)	Early Learning Attendance (II.2) Early Learning Parent Education Schedule Indicator (II.4)	Early Learning Attendance (II.2) Early Learning Preschool Schedule Indicator (II.3)
Intensity of Instruction	Batch upload from approved vendors of IFSP/IEP elements*		CLASS in STAR Curriculum in course catalogue		CLASS in STAR Curriculum in course catalogue
Class size & ratio (Is there a way to do this at child level? Model from K-12?)					

	EI/ECSE Existing	EC Screening Existing	SR Proposed	ECFE Proposed (primarily parent focused)	HS Proposed
Highly trained professionals and ongoing professional development	STAR		STAR	STAR	STAR
Comprehensive Services		Status End Codes (61-65)	Status End Codes (61-65)	Status End Codes (61-65)	Status End Codes (61-65)
Compensatory Services			STAR - CLASS		
Coordination of transition to K			Early Learning Transition to K (II.6)		Early Learning Transition to K (II.6)
Strong Accountability	Early Learning COSF* (II.7)		STAR Early Learning Assessment Results (II.5)	STAR Early Learning Assessment Results (II.5)	STAR Early Learning Assessment Results (II.5)
District/Grantee	Location Information	Location Information	Location Information	Location Information	Location Information
Child Demographics	DOB Race/Ethnicity IEP Status HHM Migrant Primary Home Language	DOB Race/Ethnicity IEP Status Primary Home Language	DOB Race/Ethnicity IEP Status HHM Migrant Primary Home Language Out of Home Placement (privacy?)	DOB Race/Ethnicity IEP Status HHM Migrant Primary Home Language Out of Home Placement (privacy?)	DOB Race/Ethnicity IEP Status HHM Migrant Primary Home Language Out of Home Placement (privacy?)

* Existing MARSS Grade, new element

MDE Policy Initiative 2- Teacher Preparation

MINNESOTA BOARD OF TEACHING

TO: Members, Board of Teaching
FROM: Karen Balmer
DATE: September 30, 2009
RE: New Business IVA: PEPER Conceptual Framework

RECOMMENDATION: To adopt the proposed conceptual framework for the redesign of the Board of Teaching's ongoing program approval requirements:

FORM 1: INSTITUTIONAL AUTHORIZATION AND INSTRUCTIONAL LEADERSHIP

FORMS 2 and 2a: STANDARDS OF EFFECTIVE PRACTICE COURSES/CREDITS and MATRIX

FORMS 3 and 3a: CONTENT STANDARDS COURSES/CREDITS and MATRIX

FORM 4: FACULTY QUALIFICATIONS

FORM 5: CLINICAL EXPERIENCES

FORM 6: CANDIDATE COMPETENCE DATA

Work sample
First-year teacher survey
Employer survey
Testing data
Student Teaching evaluation
Additional measure selected by the institution

FORM 7: ASSESSMENT PROCESS

FORM 8: CONTINUOUS IMPROVEMENT AND DATA-DRIVEN DECISION-MAKING

At the August retreat, you received an update from JoAnn Van Aernum and Carol Knicker about the work over the last year to revise our program approval process, which is currently known as PEPER: Professional Education Program Evaluation Report.

The working group is comprised of 13 MACTE members, Jim Lindsay from REL-Midwest, and JoAnn, Carol, and me. The first meeting was held in October of 2008, and the group has been working diligently over the last year. It has been a fantastic group of folks working through very difficult issues, and we are thrilled that we are now ready to share the conceptual recommendations of the group.

But first, an important reminder about the objectives of the project:

1. Develop a comprehensive system for continuing program approval that is based on the successful demonstration of measures of <u>candidate competence and performance data</u>.
2. Develop a system of program approval that will allow for data analysis that will inform policy discussions and decisions as well as practices at the institutional level.

We believe that the conceptual framework that has been developed hits the mark of both objectives. It parallels the requirements set forth in MN Rule 8710.7600, which is the rule that governs both institutional and program approval, as well as our statutory requirements. It is critical to note that the framework does not require anything that is not explicitly required by rule and statute.

Beginning on page 3 you will find the specific rule language and the proposed forms that will be used to address each portion of the rule.

Subp. 5a. **Requirements for each teacher preparation program within an approved institution.** An approved institution shall submit a description of each teacher preparation program for which approval is requested to the Board of Teaching. Each description shall include evidence that:

A. rules of the Board of Teaching governing the licensure of teachers for which students in the program are being prepared are met and the program provides curriculum, instruction, and assessment consistent with the content and pedagogical requirements of the licensure field;

FORMS 2 and 2a: STANDARDS OF EFFECTIVE PRACTICE COURSES/CREDITS and MATRIX; FORMS 3 and 3a: CONTENT STANDARDS COURSES/CREDITS and MATRIX

B. candidates enrolled in the teacher preparation program are required to complete course work in methods of teaching the content and levels of students for which they are preparing to be licensed;

FORMS 2 and 2a: STANDARDS OF EFFECTIVE PRACTICE COURSES/CREDITS and MATRIX; FORMS 3 and 3a: CONTENT STANDARDS COURSES/CREDITS and MATRIX

C. candidates preparing to be recommended for first licensure are required to complete successfully a series of early and ongoing planned, supervised, and evaluated clinical experiences as well as at least ten full weeks of student teaching experiences in the licensure field and at the licensure level for which the candidates are completing teacher preparation programs and are to be recommended for teacher licensure;

FORM 5: CLINICAL EXPERIENCES

D. necessary faculty and physical resources are allocated to implement and maintain the teacher preparation program as follows:

(1) a professional staff member, qualified by academic preparation, shall provide the instructional leadership for the program and develop the course of study in collaboration with licensed, experienced school personnel in the field;

FORM 1: INSTITUTIONAL AUTHORIZATION AND INSTRUCTIONAL LEADERSHIP

FORM 8: CONTINUOUS IMPROVEMENT AND DATA-DRIVEN DECISION-MAKING

(2) faculty assigned to instruct and assess the subject matter content shall have advanced academic preparation to teach the content;

FORM 4: FACULTY QUALIFICATIONS

(3) faculty assigned to instruct and assess the professional education components shall have both academic preparation and direct experience teaching the content and levels established in the licensure field's scope of practice;

FORM 4: FACULTY QUALIFICATIONS

(4) program faculty assigned to provide instruction in methods of teaching and to supervise student teaching experiences shall have teaching experience at the licensure level of the licensure program; and

FORM 4: FACULTY QUALIFICATIONS

(5) classroom teachers who supervise student teaching experiences shall hold current, valid licenses in the licensure fields and at the licensure levels they supervise;

FORM 4: FACULTY QUALIFICATIONS

E. an operational process is in place for assessing attainment of standards by each candidate who is to be recommended for licensure; and

FORM 7: ASSESSMENT PROCESS

F. the program requires that candidates attain academic competence in the subjects the candidates will be licensed to teach.

**** FORM 6: CANDIDATE COMPETENCE DATA – See page 6!!**

Additional Requirements

MS 122A.09, Subdivision 4 (d):
The board must provide the leadership and shall adopt rules for the redesign of teacher education programs to implement a research based, results-oriented curriculum that focuses on the skills teachers need in order to be effective. The board shall implement new systems of teacher preparation program evaluation to assure program effectiveness based on proficiency of graduates in demonstrating attainment of program outcomes.

**** FORM 6: CANDIDATE COMPETENCE DATA – See page 6!!**

MS 122A.09, Subdivision 4 (f):
The board must adopt rules requiring teacher educators to work directly with elementary or secondary school teachers in elementary or secondary schools to obtain periodic exposure to the elementary or secondary teaching environment.

FORM 4: FACULTY QUALIFICATIONS

MN Rule 8700.7600, Subpart 5 (Institutional Approval):
Written application required. A written application for approval of an institution must demonstrate:

A. in professional and pedagogical studies:
(3) assessment and evaluation are integral components of the professional education sequence and are used to monitor teacher candidate performance and program effectiveness;

FORM 7: ASSESSMENT PROCESS

MN Rule 8700.7600, Subpart 5(f):
Written description of revisions in approved preparation programs. When an institution makes revisions in an approved teacher preparation program, the institution shall forward to the Board of Teaching a written description of each revision. When an audit determines that the revised teacher preparation program continues to meet this rule, each verified revision shall become an amendment to the approved teacher preparation program.

FORM 8: CONTINUOUS IMPROVEMENT AND DATA-DRIVEN DECISION-MAKING

CANDIDATE COMPETENCE DATA

The heart of the redesigned system lies in the Candidate Competence Data. The group has agreed to the following measures:

1. Work Sample – Each candidate will complete a work sample which is defined as "exhibits of teaching performance that provide direct evidence of a candidate's ability to design and implement standards-based instruction, assess student learning and reflect on the teaching and learning process." Each institution will assess its own candidates but will use a common rubric. Aggregate scores will be reported for the purpose of program approval. Every year the BOT will randomly select two samples from each licensure field at each institution to review and ensure inter-rater reliability across institutions.

2. First-year Teacher Survey – A survey designed by collaboration called MNTERC (Minnesota Teacher Education Research Consortium): Mankato, St. Catherine's, and the University of Minnesota, Twin Cities. MNTERC has tested the survey instrument and can ensure reliable and valid results for use as part of the program approval process. The survey is based on the ten standard areas found in the Standards of Effective Practice.

3. Employer Survey – Similar to the first-year teacher survey: designed and tested by the MNTERC collaboration; based on the ten SEP standards.

4. Testing Data – Scores from content and pedagogy tests will be required. We will have Pearson develop a report that will be used by all IHEs to report this data on a common form.

5. Student Teaching Evaluation – Institutions will be able to continue using their own evaluation form, but will be required to reflect the Standards of Effective Practice and will use a common four-point assessment scale to be used and reported to the Board.

6. Additional Measure – Each institution would select one additional measure to submit. They could submit portfolio data (broken down by SEP area) or program GPA data (relative to non-education major peers) or another measure collected by their program.

MDE Policy Initiative 3- Shared Stakes Shared Accountability

A Proposal for a Shared Stakes-Shared Accountability Using End-of-Course Exams at the High School Level in Minnesota

Background

Minnesota's current version of its statewide assessment system is approaching its fifteenth anniversary. The state's foray into accountability testing that began with junior high minimum competency tests has transitioned to use of a high school assessment with high performance expectations. This transition has created both policy and technical challenges along the way.

In 1995, the Minnesota legislature enacted into law a commitment "to establishing a rigorous, results-oriented graduation rule for Minnesota's public school students" (Minn. Stat. §120B.30.7c). The Minnesota Department of Education (MDE) developed sets of test specifications to measure the minimal reading, writing, and mathematics skills needed to be successful in the workforce: this was the basis for the Minnesota Basic Skills Test (BST), Minnesota's first statewide diploma test. Like other tests, it went through its initial concerns of stakeholders while educators and stakeholders became accustomed to the performance expectations and the consequences of the exam. As with other tests, the proportion of students who passed the BST reading, writing, and mathematics tests increased at first, but then plateaued after several years.

With the advent of No Child Left Behind (NCLB), accountability standards for schools were established by way of the reading and mathematics tests for NCLB (known as the Minnesota Comprehensive Assessments). Some stakeholders began to question the rationale for having two different sets of expectations: one for student graduation and another for high school proficiency under NCLB. They questioned why the accountability requirements for the school were more rigorous (student proficiency in high school level reading and mathematics) than the graduation requirements for the individual student (proficiency in these subjects at no more than an eighth-grade level on the BST). These were promoting an incongruous set of expectations. Some school administrators also expressed concern that students would not be motivated to perform at their best on the NCLB exam if the test had no student stakes, and as a consequence their schools' status under the Adequate Yearly Progress (AYP) requirements of NCLB would be compromised. The continuing concern about the amount of testing also led some to question why the state was giving both student- and school-level accountability tests: could not a single test be used for both purposes?

Minnesota took the opportunity to address some of these concerns when the state assessment system was redesigned to meet all of the testing requirements of NCLB. High school versions of the MCA-IIs, which became operational in 2006, were designed to accomplish several goals: 1) create a single (reading or math) test for both student and system accountability that would reduce testing time, 2) increase student motivation within that test, and 3) increase the rigor of the graduation test by making it a high school level assessment. It had yet to be determined whether the high school student stakes proficiency standard would be the same as that of the system accountability proficiency. To accommodate this indeterminacy at the time of test development, a "test within a test" strategy was used to allow for setting a secondary cut score for minimum competency if stakeholders desired. In 2007, the Minnesota legislature provided for the Graduation-Required Assessment for Diploma (GRAD) ,

on which a minimum competency passing score could be set for graduation. The GRAD is embedded in MCA-II high school test booklets, and is also available in stand-alone form for student retests.

The advantages of increased student motivation and streamlined testing time notwithstanding, the high school educational system of the state was not fully prepared for the increased graduation performance and coursework expectations (e.g., eleven years of math instruction rather the minimum competency expectation at grade 8) associated with the high school graduation test. While the GRAD reading exam has also caused concern for some stakeholders, the math exam has been the primary focus of the discussion within the state. Concern about the significant number of students who would not demonstrate proficiency on the GRAD math exam led to a legislatively-mandated, five-year moratorium on student stakes in mathematics while a work group considers the next direction in high school assessments and their integration with an accountability system and college and career readiness indicators.

This work group, one of several of the College and Career Readiness Policy Institute in Minnesota, has discussed many aspects of an assessment and accountability system, one of which is the type of assessment(s) that would be used. Three types have steered the discussion: 1) a comprehensive exam similar to the current MCAs, 2) state end-of-course exams (EOCs) that would be given at the conclusion of the student's academic course, and 3) an augmented college admissions test, such as the ACT or SAT.

Another aspect with which the work group continues to struggle is the relevance of "stakes" within the accountability system. Requiring the student to pass a single test within a content area has been the crux of what has brought Minnesota to its current stalemate. Various Minnesota stakeholders have assorted concerns with any of these types of models. One argument for a low stakes assessments is that graduation should not be determined by one (or more) assessment(s). Its advocates cite the recommendations of well-respected advisory bodies on assessment and accountability that a high-stakes decision should never be made on the basis of a single assessment. In addition, they argue that a varied collection of evidence should be used to determine a student's mastery of the knowledge and skills necessary to be ready for college or high-skilled employment after high school. In contrast, advocates for a consistent statewide high school graduation threshold prefer high stakes examinations. Their argument is that the state cannot accurately gauge the return on its investment in education unless there is an equivalent ruler used across the state. Moreover, the state is an entity in the global economy: a highly-skilled workforce with clear definition of their skills and abilities is essential for economic competition. The elimination of Minnesota's graduation exam requirements, after fifteen years of administration, is perceived by many in this camp as a move toward less rigor and accountability for the educational system. In the end, proponents for high stakes testing argue, elimination of the graduation examination results in students having one less credential to demonstrate their preparedness for college or the work place.

The Concept: Shared Stakes-Shared Accountability

Finding an approach that can satisfy these disparate stakeholder perspectives is the challenge of this discussion. One solution may be to develop a model where both the students and the school system in which they are educated have a comparable stakes in the outcome of their graduation performance. The accountability becomes "shared" between the two. This "shared stakes-shared accountability" model involves the use of state-prescribed, end-of-course exams.

The **student** would have to pass the course — but not necessarily the statewide end of course exam — in order to earn course credit to graduate from a Minnesota public high school. The course grade would

be determined by a weighted combination of classroom and end-of-course exam performance. Thus, the model requires that end-of-course exam performance will be a significant, but not the sole, factor in receiving course credit toward graduation. This is similar to the grading models currently used in high schools throughout the state and throughout the country.

The **school system** would have to present evidence that could be used to determine the extent to which its grading practices were consistent with those employed by other schools throughout the state. This would be accomplished by comparing its distribution of course grades vs. scores on the state EOC exam with statewide distributions. In the short term, availability of such information would be expected to lead divergent schools to review and voluntarily change their grading practices. In the longer term, state policy could be developed to address schools with consistent patterns of clearly discrepant grading practices. Stakeholders would establish performance expectations on the EOCs that align with college and career readiness. When schools' grades are analyzed against these EOC expectations, it will provide additional information about the schools' expectations in its preparation of students for college and career readiness.

Rationale

"Shared stakes-shared accountability" avoids the stalemate of the "either/or" debate in Minnesota today. It does not establish either "high stakes" or "low stakes" for the student. Instead, the focus is on "shared stakes-shared accountability" – for the student and the school. It is intentionally designed as a compromise between competing interests. "Low stakes" proponents have likely considered that the state will require some assessment for high school graduation, whereas "high stakes" proponents may consider a lesser stake for the *student* if the *system* can better define the skills and knowledge of a high school graduate. What we learn from our assessments includes information about the system, not just the student; accordingly this proposal provides a meaningful level of student accountability, but also provides us significant new information about the operation of the entire system.

This would address the concerns of those who do not wish to have all the students' stakes of graduation held in a single EOC within a subject. Student performance in the remainder of the course content would now play a greater role in graduation. Since the course grade is the composite of many different types of measurement (e.g., performance assessment, long-term projects, or presentations), multiple measures of student mastery are included *de facto* in the student's graduation decision. However, making graduation dependent solely on grades would raise the potential of grade inflation, which would concern those stakeholders focused on maintaining consistently high standards. The proposal to hold the system more accountable is intended to act as a governing force on this concern.

Objective

By sharing the accountability for student graduation, requirements are placed on both the student and the system, but not on either solely or independently. Shared stakes-shared accountability can provide both the best of educational practices using multiple measures to assess the student while still using flexible accountability methods to establish accountability for the school system. In essence, it maintains a high standard for the student while avoiding a one-size-fits-all approach in assessment and also maintains high expectations for the school system while providing flexibility, for which other accountability systems are often disparaged.

The **student** would receive a more holistic measurement of his or her skills and knowledge at a definable point in the educational career: the end of the course. As currently required in Minnesota statute, students must obtain course credits for graduation in specific content areas in high school (e.g.,

Geometry, Algebra II, Biology, Chemistry or Physics). During the course of the school year, students are involved in numerous formal and informal assessments at the classroom level. Students complete many activities that demonstrate their level of mastery of the knowledge and skills required of that course, also required to be aligned to the state content standards. Allowing these more frequent observations and measures to play a role in determining the final level of mastery students demonstrate seems a reasonable approach in determining college and career readiness. Many of these same types of measures will be used in college and the work place, and to that end may provide more authentic experiences of these expectations than a summative exam.

The **school system** would be able to benchmark its course expectations with those of the state and those of other high schools within the state. Having statewide EOC performance expectations that are aligned to college and career readiness, the school system would have clear and focused expectations of the rigor in these high school courses that are necessary to be successful in post-secondary experiences. This would no longer be the state providing a single piece of datum (one test score) to receivers of these students. The school system would be providing additional information on the performance of these students on grades that were the result of an entire academic term devoted to learning this content. More than simply providing a letter grade on a transcript as has been done in the past, this letter grade would now have context within the expectations of all of Minnesota.

While assisting stakeholders in the interpretation of course performance in context of state expectations, "shared stakes-shared accountability" would also deter tendencies to inflate student performance based on the remainder of the non-summative exam (non-EOC) portion of the course grade. Because the course grades of the school would be compared against the performance of EOC exam in the aggregate, any significant discrepancies in expectations will be readily apparent.

Conclusion

The use of state-prescribed end-of-course exam scores in high schools is not new in the country. Some research such as that of CEP suggests that the trend is shifting toward this method. What is novel in this proposal is the planned implementation of these scores to help calibrate the rigor of coursework across the state, using empirical data to guide the process. What is different is that it allows for local control of grading systems without forcing a centralized scheme in a local-control state. What is unique is that it does not force the issue of high-stakes assessments to be an "either/or" question. Rather, it builds off the goals of both high and low stakes proponents to forward Minnesota toward its goal of increased student achievement in preparation for post-secondary learning and living. Through sharing the responsibility of a student's education, we can also share in the accountability for that responsibility. This can be done through a share stakes-shared accountability methodology using high school assessments and the courses on which they are based.

MDE Policy Initiative 4 - Q-Comp

History and Overview of Q Comp

Quality Compensation for Teachers (Q Comp) was proposed by Governor Tim Pawlenty and was enacted by the Minnesota Legislature in July 2005. It is a voluntary program that allows local districts and exclusive representatives of the teachers to design and collectively bargain a plan that meets the five components of the law. The five components under Q Comp include: Career Ladder/Advancement Options, Job-embedded Professional Development, Teacher Evaluation, Performance Pay, and an Alternative Salary Schedule.

Q Comp was enacted in response to a predicted teacher shortage in Minnesota due to retirement, 46% in the next 12 years, and 30% of new teachers leaving the profession after five years. Additionally, there are teacher shortages in high-need school districts and high-need licensure areas. This policy was designed in attempt to address work force issues of recruitment and retention as well as reinvigorate teachers in the profession.

Q Comp was a bi-partisan agreement through the Minnesota State Legislature in 2005. Steps leading to the legislature are rooted in 2001 Alternative Compensation pilot program and the 2004 federal Teacher Quality Enhancement Grant (TQE) focusing on teacher recruitment, retention and teacher effectiveness. A major emphasis of the TQE grant was to implement the Teacher Advancement Program, develop a teacher mentorship program and establish a teacher recruitment center. The state partnered with five school districts including Minneapolis Public Schools to implement and promote these practices.

Minnesota believes that effective teachers, with strong instructional practices can improve student achievement. The Q Comp program is a professional development model that promotes the restructuring of school systems by utilizing teacher leaders and providing teachers with time to meet in collegial teams to discuss instructional practices, student achievement data, and student work. The collaborative work of the teachers is to set goals for school-wide and individual student achievement, to improve instructional practices, and work with teacher instructional leaders to improve student achievement. The program includes a peer evaluation process for every teacher that is based on skills, responsibilities and student academic improvement. Teachers are rewarded and paid based on their performance, no just seniority.

Minnesota is a leader in education and wants to be an example of a system where quality teachers are continuously raising the achievement of all students. Quality Compensation for Teachers (Q Comp), also known as the Alternative Teacher Professional Pay System (ATPPS), was enacted to raise the quality of teachers in a number of ways. Q Comp invigorates teachers by helping them to participate fully in meaningful professional development. It reforms a teacher pay system from one that does not support teacher quality to one that rewards teachers for the quality work they do. To find and keep quality teachers, Q Comp also addresses work force issues of recruitment and retention. Minnesota has a predicted teacher shortage due to the retirement of 46% of teachers in the next 12 years as well as the fact that 30% of new teachers have left the profession after five years. And these shortages are especially great in high-need school districts and high-need licensure areas.

Teacher salary schedules were designed to solve a problem that no longer exists, and they need to be updated to meet new needs. Reform of the teacher pay structure through the Q Comp program enhances professional development, utilizes evaluation tools, and rewards quality teachers. Moreover, research indicates that quality professional development improves student learning. Performance pay for teachers is one way to offer resources and motivate teachers to rethink their teaching strategies and collaborate with others to help students.

There is also a need to align school improvement initiatives and unite the efforts of the Minnesota Department of Education (MDE), unions, and districts. Minnesota is fortunate to have the legislative initiatives to push the envelope on effective professional development. These initiatives include statutes requiring resources to be set aside exclusively for professional development and distributive decision-making, empowering teachers to assess their students needs as well as their own professional development needs. Q Comp is designed to align the goals of different initiatives required of districts and to supply more resources to do it. The program allows districts and unions to participate voluntarily. It requires groups to work together to customize a plan to meet local needs that support implementation of these policies.

While the program name implies compensation is the main facet of this initiative, what is most important is how teachers demonstrate quality performance to earn the compensation.
At least three elements determine performance:

1. Schoolwide student achievement gains on the state assessment, locally selected standardized assessments or both
2. Classroom or individual measures of student achievement
3. Objective teacher evaluation by a team of trained evaluators

There are five components that work together in a Q Comp plan:

1. **Career Ladders/Advancement Options for Teachers: This** component focuses on providing interested and qualified teachers with the opportunity to take on leadership roles in the district and share their expertise with their colleagues while still retaining a primary role in student instruction.

2. **Job-Embedded Professional Development:** This component focuses on aligning professional development with schoolwide student achievement goals on a standardized assessment and providing teachers with time for collaboration and collegiality during the school or teacher contract day. This time should be provided on either a once weekly or once every other week basis.

3. **Teacher Evaluation/Observation:** This component focuses on helping teachers to show continuous growth and improvement in instructional skills through formative teacher evaluation/observation focused on a rubric and provided by a team of evaluators/observers. This process must occur at least three times per year for all teachers and must include at least two different evaluators/observers.

4. **Performance Pay**: This component focuses on the performance bonuses awarded to teachers based on attaining various performance indicators. At least 60% of any compensation increase must be based on the following three performance factors:
   a. **Schoolwide** student achievement gains on a standardized assessment
   b. Measures of **student achievement** such as classroom, grade level, or team goals
   c. **Teacher evaluation**/observation results

5. **Alternative Salary Schedule**: This component focuses on reforming the traditional "steps and lanes" salary schedule so that any permanent base salary increases for teachers are based on performance factors rather than longevity/continued performance. At a minimum the salary schedule must be revised so that no teacher receives an increase in base salary unless specific performance indicators are met.

The components are individually designed by the union and the district. While the statute gives a foundation to the program, it remains flexible so that any organization can make it work within existing structures. Also, as a district implements the plan and learns more, revisions can be made to an approved plan so that it better meets the needs of the organization. Currently, the participants range from a district with 32 sites to a charter school with only four teachers. Some schools are traditional while others are project-based or have specialized programs.

Minnesota believes that effective teachers, with strong instructional practices can improve student achievement. Through our Peer Review process, we hear teachers talk about starting out being anxious in regard to teacher observation but later finding how valuable it is. Also, while time is a factor in allowing teams to meet, teachers strive to create a schedule that works because they discover that collaboration is a form of professional development that positively impacts their practice and improves the quality of their teaching. When effective collegial team meetings are put into practice, the professional development generated transfers into daily instruction. Similarly, implementing constructive feedback through formal observations also changes instruction. The collaboration and feedback both transfer into improved instruction and increased student achievement.

Discovering how achievement on the state test has changed as a result of the program is a current area of exploration. Evaluation is one area to think about when deciding to implement a statewide program like this. If using the state test data, there are many factors to keep in mind. These factors range from setting a hypothesis to collecting data from the goals to make the analysis more defined. Content areas of focus can change annually and can be different across districts and grade levels. This makes effectively analyzing the data statewide more complicated. While the ultimate goal of Q Comp is to improve student learning, it should be recognized that improved student achievement is rarely achieved in the first few years of reform. In many cases, this goal is not achieved for five or more years. Further exploration in this area is needed to analyze the data accurately.

MDE created the School Improvement Division to support the professional development needed. This division has grown to meet the demands of the growing program and offer the support needed to organize the program and lead districts to the best possible outcomes. To help in this effort, an Advisory Committee was established. This group of representatives from established Q Comp districts, unions, other educational organizations and MDE discuss implementation issues and influence decisions. Also, a larger networking group has begun to meet so all participants have a chance to communicate and improve their implementation efforts.

Each year participating districts update schoolwide goals as one measure of student achievement. And each year there are greater expectations placed on these goals. Currently, we are especially focusing on the measurability of the goals and the appropriate use of assessments.

We recognize that change is complicated. It takes time, and it requires support. Scaling up our efforts to improve professional development through policy and practice are our goals for the next few years. We are encouraged by the results that we see after only three years of the Q Comp program and are hopeful that we can find strategies that will bring others along for the opportunities that bargaining professional development language can bring.

MDE Policy Initiative 5- M2D3

The Minnesota Department of Education (MDE) has initiated a project, Minnesota Model for Data Driven Decisions (M^2D^3), to support and enhance the use of student assessment and program evaluation data to continuously improve instruction and curricula as well as school organization, management, and climate. M^2D^3 is working to coordinate data-related initiatives within MDE and across the state to establish a common language of data-driven decision making for Minnesota districts and schools.

M^2D^3 has identified five different levels of data-driven decision making: A) Policy; B) Program; C) Subgroups within Schools; D) Classroom; and E) Individual Student. The analysis will be different at each level because the decisions to be made and the decision makers change. Within a level, different groups may be making the decisions. M^2D^3 encourages the flow of data and information both ways across decision making levels for effective allocation of resources and leveraging of increases in student achievement. Regardless of the decisions to be made and the different decision makers, M^2D^3 advocates the use of a five stage model to guide the decision making process and sustain improvements in schools.

The model is a refinement of a model being used by the Minnesota Systemic High School Redesign project which was developed collaboratively between McREL and MDE. The five stages in the model are: 1) Taking Stock; 2) Focus on the Right Solution; 3) Take Collective Action; 4) Monitor and Adjust; and 5) Maintain Momentum. The first two stages focus on analysis of student achievement data and goal setting while the last three stages focus on using program evaluation data with ongoing student achievement data to ensure readiness for implementation of a research-based intervention/practice, fidelity of its implementation, and scaling-up the intervention/practice for sustainable increases in student achievement.

As the M^2D^3 project begins its work, initial efforts are directed to helping educators at the policy and program levels develop their expertise in stages 1 and 2. Though large districts have in-house experts or smaller districts have regional technology consortia to help organize and maintain local data, many educators are not aware of the available data. These educators need to be able to find and use state data appropriately and effectively, apply those same analysis skills to local data for ongoing decisions throughout the academic year, and develop sustainable infrastructures for the appropriate and effective data use to occur at the remaining three levels of data-driven decision making. Guides are being developed to assist in knowing what data is available, locating data, asking questions related to specific data, and knowing what data is used at what decision level. The MDE Information Technology division is working to make access to longitudinal data more available to districts and schools, especially data for highly mobile students. Further M^2D^3 work to support stages 1 and 2 will focus on workshops and web tutorials to help educators learn how to analyze student achievement data to write quality SMART district/school/program goals and to complete in-depth analysis for finding the right solution to recurring problems, especially instructional problems.

Currently, Minnesota High School Redesign Data Workshops guide high school teams through the transition from stage 2 to stage 3 in the M^2D^3 model. Teams arrive at the workshop with initial data analysis completed and an identified area for improvement based on the core components of effective high schools. The workshop provides time for the teams to refine goals and supporting data, identify potential initiatives to solve an identified problem, and develop an initial implementation plan. Through ongoing coaching and networking during the academic year, participating high schools have the opportunity to implement their plan, gather data, refine implementation of the selected initiative, and reflect on its impact. This work will provide the M^2D^3 project with an effective structure for scaling-up the use of data-driven decision making in other initiatives across the state.

Minnesota's Common Principles of Effective Practices (CPEP) project provides a framework to support the later three stages of the M^2D^3 model. With technical assistance from the National Center on State Implementation and Scaling-up of Evidence-based Practices (SISEP), MDE is building state and regional

teams who are prepared to assist districts and schools in examining and understanding educational practices and developing the capacity to support those practices system wide. CPEP focuses on the levels of support needed to accelerate learning for all students and culturally responsive teaching and learning of the Minnesota Academic Standards while implementing research-based practices as intended with involvement from parents and the community. By emphasizing systematic job-embedded professional development, leadership at all levels, and coherent alignment of policies and procedures to support the implementation of selected practices/interventions, CPEP teams will help schools realize efficiencies and improve initiative alignment to attain better outcomes for all students.

MDE Policy Initiative 6- MIERS

Minnesota CCRPI Policy Actions and Recommendations

Workgroup 3: Minnesota Early Indicator and Response System

1. **A. Description of workgroup, charges, membership and plan of action**
Workgroup 3 is charged with designing a policy proposal for a Minnesota Early Indicator and Response System (MEIRS). The workgroup is composed of 18 individuals with expertise in issues associated with developing a dashboard of early indicators to identify students who are off-track and providing supports to help students graduate on track to college and career readiness. The individuals represent a variety of organizations and key stakeholders including Minnesota public schools, University of Minnesota, Minnesota Department of Education, Community and Technical Colleges, Minnesota State Colleges and Universities, TIES, and more. In addition, Joel Vargas, from Jobs for the Future has been an active participant.

The workgroup has met three times (5/1, 5/28, and 6/11). Multiple materials to inform decision making have been distributed on line and in hard copy. Input has been gathered during meetings and via e-mail communication. The workgroup is following the timeline proposed by the leadership team. After feedback from the first draft of policy recommendations has been received, it is anticipated that policy actions and recommendations will be revised and circulated among appropriate audiences and stakeholders (see question 4).

Workgroup 3 began by discussing and more clearly defining the purpose of developing an early warning, tracking, and response system. The group identified the purpose of MEIRS as 3-fold.

1. The purpose of the MEIRS is ***to provide a screening tool that can be used to identify students early on*** (e.g., beginning in middle school). This flag suggests further investigation is warranted to determine the extent to which the student is on or off track to graduation from high school and ready for pursuit of and college and/or a career.

2. **The purpose of** the MEIRS is to ***facilitate student success in graduating on track to college and career readiness by providing appropriate supports matched to student need.***

3. MEIRS will be used to assist educators working with ***individual students*** (e.g., identify students who are in need of additional supports to graduate college and career ready). However, the data should be able to be ***aggregated to provide an indication of readiness across grade levels within schools; school wide; district wide and statewide.***

1. **B. Identify the state's areas of "immediate" and "upcoming" priorities for workgroup 3.**

Policy Area	Policy Element	Priority
IV. Accountability Systems:	Trigger appropriate supports and interventions for individual students and student groups	*Immediate/Upcoming Priority* Members of Workgroup 3 agreed that this must be developed hand in hand with the early warning system, as the value of the identification of students who are off-track lies in linking appropriate supports and programming matched to student need.
V. Supports and Interventions for Districts and	Establish and ensure that there are a range of supports from the state to support	*Upcoming Priority* Although MDE and other organizations have provided assistance to schools and districts to

Schools:	schools and districts	support early identification and response systems, these efforts are not unified in a cohesive manner, and will take time to organize.
VI. Early Warning Systems, Pathways, Options and Models:	Implement early warning systems to identify students most at risk of dropping out and link them to prevention and intervention strategies/models to get them back on track to college and career ready graduation.	*Immediate Priority* Research exists on potential effective indicators that can be used to identify students who are off-track; some MN schools are experimenting with early warning systems; TIES is assisting schools in using data systems to identify students; Postsecondary and Work Force Readiness Working Group Report includes recommendations on potential measures to use; and other groups are exploring use of data systems (e.g., Ramp Up to Readiness). Many conditions are in place to move forward with this policy as a priority.

2. What are opportunities and challenges within the policy areas?

Policy Area IV. Accountability Systems: Trigger appropriate supports and interventions for individual students and student groups

Opportunity

- Existing projects are in place that have the potential to inform schools and districts on data use and linking to effective/evidence based supports and interventions
- The value of the identification of students who are off-track lies in linking appropriate supports and programming matched to student need
- A statewide bank or menu of interventions with embedded links to on-line resources could be available to users of the MEIRS data system
- A system of interventions modeled after the RTI/PBIS tiered levels of supports could be used as a framework to support prevention/intervention for *all* students, *some* students and those students who are in need of the most intensive supports

Challenge

- Although projects at MDE and other organizations have worked towards implementing supports and interventions for individual students and student groups, there is no centralized vehicle for disseminating this information in a cohesive or organized manner that is comprehensive and easily accessible

Policy Area V. Supports and Interventions for Districts and Schools: Establish and ensure that there are a range of supports from the state to support schools and districts

Opportunity

- Schools would get guidance about effective interventions based on a menu/framework of strategies/approaches
- Data would be used to guide decision making
- State would provide information to inform systemic changes that support emergent best practices and address most prevalent student challenges
- Existing projects are in place that have the potential to inform schools and districts on data use and linking to effective/evidence based supports and interventions (e.g., MN Model of Data-Driven Decision Making, EPAS, Dropout Prevention Initiative, MDE's Common Principles of Effective Practice (CPEP), Systemic High School Redesign)

Challenge

- Although MDE and other organizations have provided assistance to schools and districts to support early identification and response systems, these efforts are not unified in a cohesive manner, and will take time to organize
- How to incorporate much of the information from systemic initiatives to inform programming (e.g., Positive Behavior Intervention Supports, Response to Intervention, Ramp Up to Readiness, Literacy Initiatives, Dropout Prevention and Student Engagement Strategies, High School Initiatives, and more)
- Staff, time, materials and other resources to provide technical assistance

Policy Area VI. Early Warning Systems, Pathways, Options and Models: Implement early warning systems to identify students most at risk of dropping out and link them to prevention and intervention strategies/models to get them back on track to college and career ready graduation.

Opportunity

- Timely access to key actionable indicators to identify students on/off track to graduation
- Use existing information from research, schools, districts, organizations that are already exploring data collection, and using key indicators to identify students and link them to supports and build on these experience already in place
- EPAS benchmarks may provide some opportunities for identifying college readiness
- Potential to incorporate indicators associated with graduation (e.g., attendance, behavioral indicators such as suspension, number of failing grades, credit accumulation), indicators associated with personal and social skills (e.g., habits, organizational skills, problem solving) and college readiness (e.g., academic performance indicators, EPAS, GRAD test)

Challenge

- Data on key indicators not collected uniformly across schools, districts, or at the state level -- need alignment (e.g., no state level data on credit accumulation or failing grades).
- Existing state data systems require further coordination to enhance usability for the MEIRS three fold purpose
- Identifying the optimal relationship between data collected via MEIRS and the state's accountability system
- Reaching agreement on the indicators that should be used (efficient, powerful, predictive, tied to interventions, linked to both graduation and college and career readiness)

3. What substantive decisions or options are being considered about specific policy directions?

At this point members of Workgroup 3 have discussed and tentatively arrived at the following options for specific policy directions.

- *Build off of current strengths.* Build on the work of existing established data systems to create a data information system that can be utilized by any school district (utilizing their own data information system).
- *Utilize data to inform individual and systemic programming.* Build a data system that can be used as a screening tool to identify individual students in need of supports, but can also be aggregated to provide information at the school, district and statewide level.
- *Utilize efficient, powerful and easy to use indicators.* Utilize indicators associated with graduation (attendance, credit accumulation, number of failing grades) and college and career readiness (build off of assessments included in the EPAS) to identify students who are not on track.
- *Pilot with early adopters.* Identify, select and work with several schools/districts to flag students who are off-track and pilot a system of supports to get students back on track.

Possibilities include: participating schools involved in High School Redesign, Bloomington School District as part of the Scaling-Up Project, participating schools involved in the Dropout Prevention Initiative, other schools currently exploring use of early warning and tracking systems in Minnesota.

- *Conduct research.* Conduct research on a) key triggers and benchmarks that signal a need for additional supports; b) linkages between high school coursework, developmental college courses, and what it means to be college ready; c) use of assessing personal social skills as a means of identifying students who are college and career ready and linking interventions to these indicators; d) tracking students longitudinally on key indicators starting in middle school (or before) and continuing through postsecondary enrollment and completion.
- *Develop a menu of evidence based strategies for response system.* Work to develop a menu of evidence based approaches, strategies and/or programs that are directly linked to MEIRS indicators (beyond academics indicators only) and can be used to support students who are off track.

4. What processes is the state using to develop these decisions and how will relevant stakeholders be informed?

Members of Workgroup 3 have identified relevant stakeholders that must be included in the discussion/informed of the MEIRS. These stakeholders include parents, community members, business organizations, school/district personnel, MDE divisions, professional organizations (representing teachers, administrators, special educators, principals, colleges and universities etc.). Although a clear vehicle for disseminating this information has not been identified, many of these organizations are represented by members of Workgroup 3 and existing meetings and committees already in place will be utilized whenever possible.

5. What resources and capacities are needed to move forward in making decisions and or carrying out the plan and what state and or federal funds can be used?

- Build district capacity to be able to evaluate their strengths, skills, limitations related to the use of data and providing timely student level and systemic supports
- Build state capacity (perhaps through a targeted development plan) to provide technical assistance for dissemination of information, implementation, and coaching to schools and districts in the use of MEIRS. This will require allocation of staff, funding, and professional development at the state level.
- Collaborate with other MDE CCRPI data workgroups to determine how the MEIRS system will interface with the overall data systems (e.g., longitudinal data collection, overlap with useful indicators at state level) and accountability systems of MDE.
- Collaborate specifically with other internal MDE workgroups to facilitate communication, strengthen dissemination and deliver common messages across divisions (e.g., CPEP, M2D3, PBIS initiatives).
- Collaborate and leverage support from other groups that are exploring similar issues (P-16 Committee, MNSCU, Workforce Development).

MDE Policy Initiative 7- AP Access

Creating an AP Access Culture: Minnesota's Future AP Access System

To create an effective statewide AP Access System, the Minnesota Department of Education has brought together leaders from Minneapolis and Saint Paul Public Schools; both districts have recently approved strategic goals to the effect: "every child, college ready." The districts include 13 high schools and 15 feeder schools that serve more than 40% low income students. Less than 1% of the low income students enrolled in the high-need high schools passed an AP test in 2006-07 (74 of 10,683 students enrolled at that time). This performance is disappointing given Minnesota's frequent mention among top states for educational quality indicators like SAT scores. However, the state also has nation-leading achievement gaps (see "2007 NAEP Gaps").

Through the proposed professional development and system development activities, *AP participation, testing and test passing rates of low income students in English, math, science and critical languages will increase by 10-16% annually at the targeted sites.* The goal will be accomplished by expanding use of effective practices that have been identified through a $4.5 million state AP Access initiative. Best practices have been organized into a set of AP Access Quality Indicators: 1) Quality Management, 2) Online Resource System, 3) AP Access Professional Culture, 4) Research-based Practices: Academic, and 5) Research-based Practices: Counseling/Student Support.

Vertically-aligned AP/Pre-AP curricula, longitudinal student tracking, and targeted student services–including better utilization of business and community in-kind services–will impact two groups of low income students in need: one-third have the skills to succeed in AP but don't currently participate, and two-thirds need more engaging, challenging instruction and support programs in order to have true access to AP.

High-Poverty High Schools serving >40% free & reduced price lunch eligible students and count of AP classes offered. The Attachments provide official source documentation from the state (p.2), as well as site maps with addresses (p. 18).

High Poverty High School Locations	# Enroll 07-08[1]	# Free Reduc. Lunch 07-08	% Free Reduc. Lunch 07-08	# AP courses in Engl, Math, Sci	# IB Hi-Level courses in Engl, Math, Sci	# Adv. Critical Lang. courses	# Other[2] college level courses
Minneapolis							
Edison	1020	853	83.6%	5	0	0	5
Henry	1202	888	73.9%	0	1	1	6
North	634	510	80.4%	5	0	0	7
Roosevelt	1126	900	79.9%	6	0	0	2
Washburn	1053	627	59.5%	5	0	0	5
Wellstone	152	135	88.8%	0	0	0	0
Mpls. Total	5187	3913	75.4%	21	1	1	25
Saint Paul							
Arlington	1495	1372	91.8%	7	0	0	4
Central	2134	1168	54.7%	8	6	2	24
Como Pk	1476	909	61.6%	8	0	0	9
Gordon Parks	266	185	69.5%	0	0	0	0
Harding	2030	1660	81.8%	0	4	1	12
Highland Pk	1437	743	51.7%	0	5	1	12
Johnson	1607	1229	76.5%	7	0	0	7
SP Total	10445	7266	69.6%	30	15	4	68
Twin Cities	15632	11179	71.5%	51	16	5	93

The number of AP courses in targeted disciplines at the high-need high schools ranges from 0 to 8.

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[1] Per grant guidance, poverty figures are based on 07-08 reports. However, course information throughout the application is based on 06-07 figures. This is because 2006-07 is the most recent year for which a full set of course information is available: enrollment, testing and test passing. Note: numbers of classes offered did not change dramatically between the two years.

[2] For reference, numbers of "other" college level courses are reported. This includes College in the Schools, Project Lead The Way and additional AP or IB-High Level classes that fall outside of the grant focus on English/math/science.

High-poverty Feeder Schools serving >40% free & reduced price lunch eligible students. Poor AP access can be predicted by reviewing readiness indicators in the feeder schools (see Needs section)

High Poverty Feeder School Locations[3]	# Students 07-08	# Free + Reduc. Lunch 07-08	% Free Reduc. Lunch 07-08
Minneapolis Feeders			
Afrocentric	81	70	86.4%
Anwatin	505	356	70.5%
Folwell	222	185	83.3%
Northeast	506	398	78.7%
Olson	429	358	83.4%
Sanford	416	304	73.1%
Minneapolis Total	2159	1671	77.4%
Saint Paul Feeders			
Battle Creek	690	564	81.7%
Cleveland	312	293	93.9%
Hazel Pk	559	486	86.9%
Highland Pk	770	541	70.3%
Humboldt	304	282	92.8%
Monroe	368	311	84.5%
Murray	827	516	62.4%
Ramsey	653	454	69.5%
Washington	575	528	91.8%
Saint Paul Total	5058	3975	78.6%
Twin Cities Total	7217	5646	78.2%

In sum, the districts have identified 13 high-poverty high schools and 15 high-poverty feeder schools that qualify for grant services.

[3] Both districts offer high school choice to families. Each high school is fed by several lower schools. Improving achievement at all of the high-poverty middle schools is necessary to improve AP access at the high poverty high schools. Also, the focus on large feeder middle schools, versus K-8 sites, is because the "big middles" serve a more disadvantaged population than the K-8s. Effective practices will be disseminated to low income K-8s, however.

MDE Policy Initiative 8- Value Added Evaluation

Bush Initiative Summary

The Bush Foundation has entered into a partnership with 14 higher-education institutions, including 11 in Minnesota, focused on transforming teacher-preparation programs. These higher-ed institutions, several working as consortiums, have submitted 7 proposals to innovate their preparation programs. Over the next decade, the Bush Foundation will invest more than $36 million in the universities, which have plans to produce at least 25,000 new, effective teachers in the next 10 years. To accomplish this goal, the institutions will transform how they recruit, prepare, place and support new teachers and how they work with their K-12 partners. Among the six guiding principles established by the Foundation for the initiative is the use of data to inform decision making, and the use of value-added data in particular. The Foundation's investment will enable the universities to develop and implement their redesigned programs, starting with the 2010-11 academic year.

Each institution will launch a unique strategy that plays to the institution's strengths, while challenging the status quo to ensure the teachers they prepare will be highly effective. Innovative concepts include targeted recruiting of high-caliber students representing diverse groups, integration of co-teaching strategies, creation of residency programs to provide full-year immersion experiences to teacher candidates, deep partnerships with K-12 school districts and ongoing support to new teachers through in-person and online mentoring programs. In addition, the Foundation will work with the institutions to develop assessment tools and reporting mechanisms that teachers, schools and higher-education institutions can use to measure effectiveness and improve performance.

VARC Role

VARC will fulfill five functions within the Bush Teacher Initiative Project: Project Vision, Value-Added Analysis, and Developing Tests in New Areas, Direct Measures of Teacher Performance, and Evaluation. This proposal summarizes work to be completed between Oct 2009 and Dec 2010. In addition to the milestones and deliverables identified in the project timeline, we also propose to articulate an 18 month rolling horizon work plan each July.

The *Project Vision* line of work is designed to define, operationalize, and prioritize the goals of each group of stakeholders participating in the Bush Teacher Initiative. While all stakeholders share the same goal of improving student learning by improving the quality of teachers, each group of stakeholders have focused on separate types of goals. We have identified the following *a priori* groups:

1. The Bush Foundation
2. The Advisory Review Committee (ARC)
3. Institutes of Higher Education (IHEs)
4. Partnering local education agencies (LEAs)
5. The Value-Added Research Center (VARC)

6. State Departments of Education

Identifying the goals and needs of each of these groups will provide a basis for understanding how to define and articulate performance goals across these groups. Partnering IHEs have already begun to explicitly define their theories of action and logic models within their proposals to the Bush Foundation. Reviewing and summarizing these models facilitates rigorous measurement of where changes are likely to occur and the impact of those changes. Performance goals should also reflect the theory of action of each IHE project plan.

The *Value-Added Analysis* area of work represents the bulk of the work that VARC will be providing to the project. This line of work will focus on acquiring data, assessing data quality, and using data to calculate VAA metrics that will be used to measure the impact of the Bush Foundation project and productivity of each of the partnering IHEs. In addition to the production of VAA metrics, we also propose to provide professional development and other learning opportunities to ensure that stakeholders understand what VAA is and how to use it.

The *Developing Tests in New Areas* line of work will focus on identifying additional measures of student learning to augment the NCLB required tests that each state currently implements. The purpose for identifying additional assessments is to provide VAA metrics for grades and content areas not assessed under current NCLB requirements. These tests may include formative systems such as NWEA Multiple Academic Progress (MAP) or end of course exams.

The *Direct Measures of Teacher Performance* area of work is designed to provide resources to IHE and district partners that may be used to measure instructional practice within the classroom. These instruments will provide additional information on the efficacy of teacher preparation programs that the project is seeking to improve.

The *Evaluation* line of work will focus on identify formative and summative data needs for the IHEs participating in the project. For example, determining the degree of pre-service teacher preparedness may inform programming and scheduling decisions at the IHE level. VARC will facilitate the development of these assessment tools and work to ensure that all partners have access to them.

VARC staffing

Project Leaders

Chris Thorn, PI: Dr. Thorn has written on knowledge management and information system design in education for the past decade. He is the associate director of the Value Added Research Center and led the project to provide value-added, data system, and data quality consulting to the 34 recipients of U.S. Department of Education Teacher Incentive Fund grants. In this role he has provided strategic consulting for a number of districts and

state agencies on the high stakes use of outcome data—including value-added and growth model metrics.

Emin Dokumaci: Dr. Dokumaci is the lead production econometrician and has managed the production of statewide value-added metrics for Wisconsin as well as overseen ongoing development of new model features and diagnostics on the part of others on the statistical analysis team.

Jeff Watson: Dr. Watson is an industrial engineer with a wide range of experience in linking operational systems to data warehouses in educational agencies. He has will lead the work on data quality, data system integrity, and data integration.

Ernest Morgan: Mr. Morgan leads the Value-Added Research Center's professional development efforts. He will coordinate the professional development team for this project.

Project Management

Penny Clark: Ms. Clark is the research administrator for the Value Added Research Center. She will be responsible for overall project coordination on this effort and will be chief point of contact. She has considerable experience managing time-sensitive research activities and has the attention to detail required for deadline-sensitive, high-stakes work.

We will also be hiring at least one embedded researcher who will be a VARC researcher who is based in Minneapolis and will assist with both technical and project management duties.

Other Program Staff

Anthony Milanowski: Dr. Milanowski is a nationally recognized expert in the evaluation of educational practice and school leadership. Dr. Milanowski will lead the development of and training around teacher observation rubrics.

Nandita Gawade: Dr. Gawade is a statistical researcher who will bring her research experience in the development of classroom and differential-effects value-added models to the project

Sara Kraemer: Dr. Kraemer is a systems engineer who focuses on organizational efficiency and team performance. She also has experience doing field work in complex organizations. She will provide both data quality and organizational evaluation support to the project.

Rachel Lander & Peter Witham: Drs. Lander and Witham will be provide program evaluation training and support to participating teacher education institutions.

Elisabeth Geraghty and Sean McLaughlin are members of the VARC professional development team. They will support the development of training materials on the part of participating teacher educator institutions.

Information Technology Team

Joshua Kandiko: Mr. Kandiko is an experienced application developer who will support the work of data collection, presentation, and analysis. He also has extensive training in business process design and will assist in engaging with district and state agency IT developers.

Larry Schultz: Mr. Schultz is the data warehouse developer and will over-see all data transfers to and from the district. Additionally, he will design data models, and create and maintain data dictionaries.

Robert Glover: Mr. Glover has substantial experience supporting large-scale statistical analysis in the public and private sector. Robert has designed several multi-terabyte research data stores that have exceeded requirements.

Brie Chapa: Ms. Chapa is the research group's data librarian and will coordinate all data transfers.

MDE Policy Initiative 10- FastTrac

Shifting Gears: Minnesota FastTRAC Policy Agenda and Action Plan		
Policy Objective I: Institutionalize FastTRAC programming. Seek to ensure that FastTRAC programs become standard options offered through state education and training systems—i.e. Adult Basic Education (ABE), Minnesota State Colleges and Universities (MnSCU), Workforce Service Areas (WSAs) and Community-Based Organizations (CBOs)—by eliminating or mitigating policy and other barriers to FastTRAC program approval and delivery.		
	Timeline	Lead(s)
Policy Priority 1—**Define a set of guidelines** for the approval and delivery of FastTRAC programs.		Executive Team
Action 1—Executive Team drafts Terms of Reference for the Guidelines Team.	Aug. 30, 2009	
Action 2—Executive Team requests MnSCU, DEED, ABE, CBOs and other personnel to sit on the Guidelines Team.	Sept. 30, 2009	
Action 3—Guidelines Team reviews experience from programs in other states and consults with FastTRAC incubators, FastTRAC Supplement/WSA recipients, ETC grantees, and other local level practitioners.	Mar. 31, 2010	
Action 5—Guidelines Team's draft is considered by Executive Team.	May 31, 2010	
Action 6—Executive Team seeks validation of guidelines from MnSCU, DEED and ABE agencies, including securing any waivers necessary to expedite FastTRAC program approval and delivery.	July 31, 2010	
Policy Priority 2—**Create a process to address referral and curriculum alignment between ABE and MnSCU systems** within the context of development and delivery of FastTRAC programs.		Adult Basic Education (ABE) MN State and Community Colleges (MnSCU)
Action 1—Executive Team drafts Terms of Reference for Alignment Advisory Team.	Aug. 31, 2009	
Action 2—MnSCU and ABE each identify full-time staff to commit to the Alignment Advisory Team.	Sept. 30, 2009	
Action 3—Alignment Advisory Team begins regular meetings to address alignment issues.	Oct. 31, 2009	
Action 4—Alignment Advisory Team issues report on common use between ABE and MnSCU of assessment and placement instruments (including cut scores) and curriculum alignment between ABE and development education within the context of FastTRAC programs; and recommendations for extending the alignment arrangements/policies more widely.	Dec. 31, 2011	
Policy Priority 3—**Modify Adult Basic Education** content and funding policy in order to accelerate progress and connect ABE services closely to FastTRAC programs in collaboration with the WorkForce Center System, MnSCU, DHS, and CBOs.		ABE

Action 1—Focus the FY2010 ABE English Language and Civics federal grant program on FastTRAC program development and delivery (funding, see Policy Objective II, policy priority 4).	July 1, 2009	
Action 2—Expand eligible content for ABE services to include work-focused services such as employability skills and computer literacy that facilitate rapid entry into the Minnesota workforce, provided referrals to ABE come from WorkForce Centers.	July 1, 2009	
Action 3—Embed FastTRAC program development and delivery into ABE Summer Institute (ABE's annual professional development opportunity) and other professional development venues for ABE faculty and administrators, and create joint professional development opportunities with MnSCU faculty, WFC staff and CBOs to encourage and foster development and expansion of FastTRAC programs.	Sept. 2009	
Action 4—Designate regional transitions to postsecondary/employment coordinators among ABE consortia with responsibility for promoting FastTRAC programming and advising consortia in developing and delivering FastTRAC programs with partners (i.e. WFCs, MnSCU, CBOs).	Sept. 2009	
Action 5—Change "ABE instructional time revenue" policy so that ABE aid would be paid at a rate that sustains the ABE involvement in FastTRAC programming. To begin, the ABE state director will look to use federal funds to reimburse ABE providers at a higher rate for FastTRAC-related contact hours. A second task will be to approach the Minnesota Legislature to modify state statute that governs reimbursement rates for state funds.	Jan. 1, 2010	
Action 6—Create an online, public coursework inventory to host coursework and curriculum developed under the Education Training Collaborative (ETC) grants and FastTRAC.	Mar. 15, 2010	
Policy Priority 4—**Align policies and practices across DEED and the Workforce Center System** to support the development and delivery of FastTRAC programs in conjunction with ABE, MnSCU, DHS, DOLI, CBOs and employers.		Department of Employment and Economic Development (DEED)
Action 1—Embed the need and value of stackable credentials and the development and delivery of FastTRAC programs into professional development opportunities for WFC staff, DEED staff, and local WIBs.	Dec. 2009	
Action 2—Make adjustments to Workforce One to monitor FastTRAC program enrollments.	July 2010	
Action 3—Issue guidelines for local WIA plans to encourage co-enrollment in WIA Title I and Title II so students can accelerate time to postsecondary occupational credentials by simultaneously working toward their high school diploma and postsecondary credentials. This would also allow ABE students access to student support services which have been shown to improve student success in gaining marketable credentials.	Dec. 2010	
Action 4—Revise WIA Eligible Training Provider List to automatically include FastTRAC programs as		

designated under Policy Objective I. Action 5—Integrate FastTRAC programs into online coursework inventory and Training Resource Center, to be rolled out in FY2010. Action 6—Form a committee to reach consensus on job readiness tools to be employed by the Workforce Center System for the purpose of informing job counselors, educators, trainers, employers and job seekers	Dec. 2010 Dec. 2010 Dec. 2011	
Policy Priority 5—**Adjust the content and delivery of non-credit and for-credit occupational** training at MnSCU institutions to encourage the delivery of FastTRAC programs and accommodate ABE and workforce participants from FastTRAC programs. Action 1—Develop a statement detailing the complementary relationship between the FastTRAC stackable credentials models and Perkins Programs of Study and develop a plan for coordination. This work will be done by a task force comprised of MnSCU Perkins coordinators, ABE providers and Workforce Service Area leaders. The task force will formulate guidelines for Perkins Consortia to incorporate FastTRAC programs into Perkins Plans for FY2010. Minnesota ABE providers will also be represented on Program Advisory Committees for Perkins Consortia. Action 2—Integrate FastTRAC programs into web-based tools, including, but not limited to LearnerWeb, ISEEK and GPS Lifeplan. Action 3—Offer professional development opportunities and technical advice on FastTRAC program development and delivery to MnSCU faculty, staff and administrators. Action 4—Review current policies and procedures that are directly related to MnSCU career and technical programs to determine if they require amendments to include a FastTRAC option within existing programs or for new, proposed programs. Analyze the need for a new policy to support FastTRAC program models for career and technical certificates, diplomas, and degree programs and, if needed, bring the need forward to the Academic and Student Affairs Internal Policy Committee for action. Action 5—Examine performance measurement and accountability systems currently in place for MnSCU and offer amendments as needed to encourage development/delivery of FastTRAC programs. Action 6—Identify FastTRAC programs within MnSCU course registration and data systems.	Dec. 2009 Mar. 2010 July 2010 June 2011 Aug. 2011 Aug. 2011	MnSCU

Policy Objective II: Align, develop and deploy financial resources to reward the state's education and training systems for FastTRAC program development, delivery and student completion. Dedicate existing funding streams to the development of FastTRAC programs (i.e. programs that contain many or all of the stackable credential elements listed in the vision statement) and to student completion of FastTRAC programs. Existing funding streams include Perkins, SNAP (formerly known as FSET), MJSP, WIA Title I, WIA Title II, WIA Title IV, DLI-apprenticeships, and ARRA (stimulus). Potential new funding streams include business tax credits, scholarships/tuition reimbursement, revised reimbursement formula at MnSCU, and revisions to the MN State Grant Program.		
	Timeline	Lead(s)
Policy Priority 1—**Maximize the use of Supplemental Nutrition Assistance Program (SNAP) Employment and Training**, enabling the state to draw down federal funds to reimburse FastTRAC program expenses associated with student support services and instruction time. Action 1—Explore feasibility of incorporating ABE services into SNAP State Plan which would enable SNAP counselors to include ABE services in SNAP employment and training plans.	July 2009	DEED/SNAP
Policy Priority 2—**Promote FastTRAC development, expansion and student success through the MN Job Skills Partnership (MJSP) programs**. Action 1—Work with the MJSP Board and staff to instill the expectation that MJSP Low Income Worker and Pathway grants incorporate FastTRAC programming.	Mar. 2010	DEED
Policy Priority 3—**Foster increased WIA Title 1B investments in FastTRAC programs.** Action 1—Issue guidelines for local WIA plans to set a minimum percentage of local formula funds that must be spent on FastTRAC programs. The guidelines will ask local WIBs to develop and deliver FastTRAC programs in collaboration with ABE, MnSCU, other higher education institutions, and CBOs in alignment with guidelines developed under Policy Objective I.	Apr. 2010	DEED
Policy Priority 4—**Dedicate WIA Title II resources** (i.e. English Language - Civics funding for FY2010 -- $700,000) for development and delivery of FastTRAC programs by ABE providers. Action 1—ABE State Director drafts and issues guidelines for FY 2010 EL Civics resources. Action 2—EL Civics grants approved; implementation begins. Action 3—EL Civics grants completed; report issued on FastTRAC-related recommendations.	July 2009 Sept. 2009 Sept. 2010	ABE
Policy Priority 5—**Improve coordination between WIA and pre-apprenticeship/apprenticeship** opportunities to support FastTRAC program enrollment and completions. Action 1—Create website links between registered apprenticeship programs and DEED, MnSCU and		DEED Department of Labor and Industry

ABE websites. Action 2—Explore the feasibility, costs and benefits of delivering pre-apprenticeship/registered apprenticeship programs concurrent with job search or career exploration and in conjunction with WIA case management to serve the FastTRAC population. Action 3—Provide professional development opportunities to relevant DEED staff, WSAs, MnSCU institutions, ABE providers, and CBOs related to pre-apprenticeship/registered apprenticeship for FastTRAC population.	Oct. 2009 June 2010 Dec. 2010	(DLI)
Policy Priority 6—**Embed FastTRAC in ARRA** opportunities (formula, discretionary, and national competitions in healthcare, green manufacturing and energy). Action 1—Identify staff to coordinate DEED/WSA and MnSCU joint proposals for national grants and grant writing support. Action 2—Obligate WSA FastTRAC Supplement ($1.5 million) to local WIBs from ARRA discretionary. Action 3—Obligate FastTRAC Services for People with Disabilities ($.5 million) from ARRA. Action 4—Minnesota applies for one or more national competitive grants (healthcare, green etc.).	July 2009 July 2009 Sept. 2009 Dec. 2009	DEED
Policy Priority 7—**Dedicate collaborative FastTRAC funds** (ABE $200,000; DEED $200,000) to support FastTRAC 2.0 best practice, bridge programming and alignment issues as per Obj. I, policy priority 2. Action 1—Prepare RFP for Executive Team approval. Action 2—Obligate grants. Action 3—Grant completion, evaluation of results.	Aug. 31, 2009 Oct. 31, 2009 Dec. 31, 2010	Executive Team
Policy Priority 8—**Dedicate National Technical Assistance and Research (NTAR)** ($50,000) and **WIA Title IV** ($500,000) resources to FastTRAC programming. Action 1—Release RFP for WIA Title IV FastTRAC Services for People with Disabilities ($500,000). Action 2—Obligate funds for grants. Action 3—Conduct evaluation of NTAR - Pathways to the Trades pilot project.	July 2009 Sept. 2009 Nov. 2009	DEED
Policy Priority 9—**Deploy $800,000 FY2010 WIA Incentive Grant** to support FastTRAC. Action 1—Hire ABE regional transitions to postsecondary coordinators (see Obj. I, policy priority 3). Action 2—Roll out the first stage of the coursework repository (see Obj. I, policy priority 3). Action 3—Undertake professional development for ABE, WorkForce Centers, CBOs and MnSCU staff,	Sept. 2009 Mar. 15, 2010	DEED, ABE

faculty and administrators on FastTRAC, such as how to deliver blended instruction. Action 4—Provide funding to the Minnesota Legislature-mandated four "workforce development collaborative pilots" and issue report on findings and recommendations.	June 2010 June 2011	
Exploratory Policy Priority 10—Explore a substantial new state corporate tax credit for investing in qualified FastTRAC programs in Minnesota. *Action 1—Request Department of Finance to prepare a Fiscal Note on the proposed state corporate tax credit concept, which would calculate amount of revenue lost and the estimated time to recoup the loss through increased taxes, increased state attractiveness to business, and other public goods.* *Action 2—Create marketing material with Gould and Company to explain the tax credit concept.* *Action 3—Present proposal to MN Chambers of Commerce and area Chambers to ascertain level of interest and willingness for potential allies to advocate for the policy at the Minnesota Legislature.* *Action 4—Report to Executive Team on Fiscal Note findings and level of interest from business community, with recommendation for next steps.*	*Dec. 2009* *June 2010* *Sept. 2010* *Dec. 2010*	*Executive Team*
Exploratory Policy Priority 11—Explore feasibility of creating an Opportunity Grant program at MnSCU institutions to support FastTRAC participants. *Action 1—Hire consultant to review experience in a sample of FastTRAC 1.0 incubators and FastTRAC Supplement/WSA programs to calculate costs and benefits of delivering student support services for FastTRAC programs.* *Action 2—Review findings of OHE on MN State Grant Program and agree on next steps.* *Action 3—Review costs for student support services in comparable programs in other states, modes of delivery, and financing mechanisms.* *Action 4—Report to MnSCU and Executive Team with consultant findings and recommendations for next steps.*	*Mar. 2010* *Apr. 2010* *Sept. 2010* *Dec. 2010*	*MnSCU*
Exploratory Policy Priority 12—Change reimbursement formulas for MnSCU to reward colleges for FastTRAC programming enrollments, retention and completions. *Action 1—Work with CLASP to learn from experience of states that have a higher reimbursement rate to colleges for student enrollment in high cost, high priority occupational programs (e.g. IL, OH, WA).* *Action 2—Document costs in 2-3 high demand occupational programs at MnSCU institutions.* *Action 3—Present findings and recommendations to Executive Team; Executive Team makes recommendations to MnSCU for next steps.*	*Dec. 2010* *Dec. 2010* *Mar. 2011*	*MnSCU*

Policy Objective III: Strengthen cross-agency leadership, goal-setting and accountability capabilities. To realign state systems, state leadership must forge a shared vision of the state's economic future and the role of ABE, MnSCU, Workforce Centers, DHS, DOLI, CBOs, employers and employees/students in achieving it. The state needs to set strong performance measures to promote alignment and transitions with an emphasis on program quality. The state also needs to enhance tracking systems to collect data about adult student progress, transitions and outcomes in order to improve policy making.		
	Timeline	Lead(s)
Policy Priority 1—**Designate leadership structure** to fulfill the FastTRAC vision. Action 1—Senior Leadership Steering Committee meets and agrees on schedule of meetings for CY2010. Action 2—Senior Leadership Steering Committee meets quarterly.	Nov. 2009 (ongoing)	Executive Team
Policy Priority 2—**Set measurable state-wide goals** for achieving the vision. Action 1—Executive Team reviews central goals of similar initiatives in other states (IN, KY, WA, WI). Action 2—Executive Team arrives at a set of state-wide goals. Action 3—Senior Leadership Steering Committee considers and validates state-wide goals. Action 4—Senior Leadership Steering Committee confirms state-wide goals are integrated with strategic plans/visions of DEED, MnSCU, ABE, DHS, OHE and DOLI. Action 5—OHE delivers first edition of state-wide goals report. This could include an addendum to the "Minnesota Measures" report.	Mar. 2010 May 2010 Sept. 2010 Dec. 2010 Dec. 2011	Executive Team
Policy Priority 3— **Create a shared vision and consistent message** of the state's future workforce, a vision and message that include the reasons why increasing the number of adults with postsecondary occupational credentials is crucial, and the value of FastTRAC programs in reaching that vision. Document and raise awareness of the value of FastTRAC programs across education and workforce development systems as well as job-seekers, workers and employers. Action 1—Start work with Gould & Company to develop a concise and compelling message for each targeted audience, using evidence and anecdotes from incubators, ETC grantees, WSA FastTRAC Supplements, and other states. Action 2—Investigate tools/methods for documenting value added of RISE programs in Wisconsin, to inform development of a system for gauging value added of FastTRAC programs in Minnesota. Action 3—Educate key state legislators about the connection of FastTRAC to other important state	Jan. 2010 Feb. 2010	Executive Team

initiatives through testimony before key Senate and House committees (Higher Education and Workforce, K-12 Education, and Health and Human Services). Action 4—Identify employers and other key stakeholders to act as FastTRAC spokespersons who can deliver messages around the state. Action 5— Document the impact of FastTRAC programs on improving student success rates at MnSCU institutions. Action 6—Issue two-year Strategic Communications Plan.	Feb.-May 2010 Mar. 2010 Sept. 2010 Dec. 2010	
Policy Priority 4—**Expand the state's data infrastructure capacity** for tracking (i) adult transitions between education and training systems and into the labor market and (ii) FastTRAC participant access, completions and transitions. Action 1—Draft Terms of Reference for Data Sharing Team (will be extension and additional members to Data and Information Team). Action 2—Executive Team requests personnel to sit on the Data Sharing Team, to include data professionals and researchers from DEED, DHS, ABE, OHE and MnSCU. Action 3—Data Performance Management Plan is delivered to Executive Team. Action 4—Reach agreement between ABE and MnSCU for common student identifier and procedure for obtaining student permission for using the identifier to track transitions and outcomes between ABE and MnSCU institutions in FastTRAC programs; agree on next steps to explore the feasibility of making this agreement system-wide.	 Aug. 2009 Sept. 2009 June 2010 Dec. 2011	Executive Team

Letters of Support

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October 14, 2009

Cathy Wagner, Director
Information and Technology Division
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Ms. Wagner:

Wilder Research is actively engaged in early education research and policy development at the local, regional and state level. Wilder Research supports the Minnesota Department of Education (MDE) proposal to expand the Minnesota Education Longitudinal Data System: a four-year project to unify the education data infrastructure and ensure interconnectivity across agencies for the purposes of planning and analysis. This data partnership with Early Learning, K-12 and the Minnesota Office of Higher Education is intended to effectively link and manage education data consistent with requirements set forth in the American Recovery and Reinvestment Act and America Competes Act for research, evaluation, planning and analysis.

A primary goal of the Minnesota Education Longitudinal Data System is to identify the predictors of long-term student success beginning with prekindergarten continuing through higher education– in other words, define "what makes a difference" in the academic experiences of students. Our organization is very interested in what makes a difference for young children and their families. Although education and the acquisition of skills is a lifelong process, starting early in life is crucial. Recent research has documented the high returns that early childhood programs can pay in terms of subsequent educational attainment. Improving Minnesota's educational data system will only enhance further research and policy development in early learning.

Therefore, we strongly support MDE's efforts at securing this grant and look forward to future collaborative work regarding this project.

Sincerely,

Richard A. Chase, Ph.D.
Consulting Scientist
Wilder Research

Association of Metropolitan School Districts

1667 Snelling Ave. N., St. Paul, MN 55108 • 651-999-7325 • fax 651-999-7328 • www.amsd.org

October 6, 2009

Commissioner Alice Seagren
MN Department of Education
1500 Highway 36 West
Roseville, MN 55113-4266

Dear Commissioner Seagren:

The Association of Metropolitan School Districts wishes to express its strong support of your work on the expanded Minnesota Education Longitudinal Data System. The four-year project to unify the education data infrastructure and ensure interconnectivity across agencies for the purpose of planning and analysis will be of great benefit to Minnesota School districts as they seek to identify the predictors of long-term student success and "what makes a difference" in the academic experiences of students.

The data system will provide a comprehensive foundation for documenting the performance of students, teachers, schools, and colleges, while improving the ability to address critical policy questions related to Minnesota's investment in education.

Data alone cannot improve performance but it can support the careful consideration of issues and analysis leading to action. Too often, state policymakers make important policy decisions based on political considerations rather than data and evidence based research. We hope the establishment of a statewide longitudinal data system will be the first important step in creating a policymaking environment that is driven by data, research and evidence-based best practices.

A linked, early childhood through post secondary student information system with data on students who graduate from a Minnesota public high school and attend a Minnesota public or private post-secondary institution at the undergraduate level, with expanded workforce data could provide the state with a valuable infrastructure that will benefit education and our economy in the 21st century.

Sincerely,

Scott Croonquist
Executive Director

AMSD Members: Anoka Hennepin, Bloomington, Brooklyn Center, Burnsville, Columbia Heights, East Metro Integration District 6067, Eden Prairie, Edina, Elk River, Fridley, Hopkins, Intermediate District 287, Intermediate District 917 (Associate Member), Inver Grove Heights, Mahtomedi, Minneapolis, MSU Mankato Center for Engaged Leadership (Associate Member), Minnetonka, Mounds View, Northeast Metro Intermediate School District 916 (Associate Member), North St. Paul/Maplewood/Oakdale, Orono, Richfield, Robbinsdale, Roseville, Rosemount-Apple Valley-Eagan, Shakopee, South St. Paul, Spring Lake Park, St. Anthony/New Brighton, St. Cloud, St. Louis Park, St. Paul, Stillwater, TIES (Associate Member), Wayzata, West Metro Education Program, West St. Paul, and White Bear Lake

Our Common Agenda:
Children

MASA
Minnesota Association of School Administrators

1884 Como Avenue, Saint Paul, Minnesota 55108
voice/651-645-6272
fax/651-645-7518
email/members@mnasa.org
website/www.mnasa.org

Charles E. Kyte, Ph.D.,
Executive Director

Commissioner Alice Seagren
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Commissioner Seagren,

The Minnesota Association of School Administrators (MASA) is very supportive of the Minnesota Department of Education developing a longitudinal data system so that we can clearly understand the relationship between early learning for children in our state, the K-12 education program, and the link to higher education. To that end we are supportive of the grant application that MDE is submitting in partnership with MN Early Learning, K-12, and the Office of Higher Education.

We feel that it is important to link and manage education data so that we can articulate our system's early learning, elementary learning, secondary learning, and higher education. As the system is built we will be able to document the performance of all who are in our learning systems as well as the systems themselves. Careful analysis of data will help us to drive our school systems to a higher level of rigor and success for our students.

We understand that the MDE will be submitting this grant under the American Recovery and Reinvestment Act of 2009 and will address the requirements of this grant under the reform areas of the Fiscal Stabilization Fund. This grant application has our strongest support.

Sincerely,

Dr. Charles Kyte
Executive Director, MASA

Minnesota Association of Secondary School Principals

The Voice of Middle Level and High School Principals

1667 Snelling Avenue North, Suite C-100 · St. Paul, Minnesota 55108-2191

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October 8, 2009

Ms. Alice Seagren, Commissioner
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113-4266

Dear Commissioner Seagren:

The Minnesota Association of Secondary School Principals strongly supports the expanded Minnesota Education Longitudinal Data System. This is a critical integrated system that will provide educational leaders at all levels, Pre-K through higher education the information we need to evaluate the efficiency and effectiveness of our educational policies and practices.

In this era of accountability we need the essential information the Minnesota Education Longitudinal Data System will provide in order to integrate data from early childhood programs, K-12 schools, special education programs, limited English proficiency programs, post secondary institutions, human resources, finance, health and other relevant areas to document and evaluate performance and outcomes at all levels, benchmark best practices and provide for the post secondary success of all students.

The Minnesota Education Longitudinal Data System is the foundation for documenting the performance of Minnesota's educational systems at all levels and providing the data to align and assess instructional practices and programs. A Statewide Longitudinal Data System is essential if Minnesota is to be a world-class state competing in a global economy.

Sincerely,

Joann Knuth
Executive Director

JK/rml

MINNESOTA BUSINESS PARTNERSHIP

October 14, 2009

Alice Seagren, Commissioner
MN Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Commissioner Seagren:

We are writing in strong support of Minnesota's application for further development of our statewide longitudinal data system (LDS) under the American Recovery and Reinvestment Act of 2009.

Minnesota has a longstanding commitment to creating and making use of a student-centered LDS. We have found the student, school and district data available through the Department's website to be extremely helpful. For example, the data on the Department's website has been a key component of our efforts to identify high-performing, high-poverty schools for our school recognition program.

We also believe the evaluation of Minnesota's LDS by The Data Quality Campaign reflects the state's commitment to generating and using data to improve student performance.

As a result of the quality of the data available through the Department, we are excited to support the expansion – and effectiveness of Minnesota's LDS. The proposed four-year project to unify the education data infrastructure, and improve interconnectivity across agencies for the purpose of planning and analysis will be of great benefit to educators, policy-makers and the public.

Finally, the Department's proposal will meet the LDS needs identified by McKinsey & Company's comparative analysis of Minnesota's educational system and internationally high-performing systems. Having the LDS necessary to document the performance of students, teachers, schools, and post-secondary institutions will give us critical information for improving our Pre-K through 20 system.

We strongly support the state's application for expanding Minnesota's LDS. Thank you for your leadership in this critical activity.

Sincerely,

Charlie Weaver
Executive Director

MINNESOTA CHAMBER of COMMERCE

100 business unified.

October 14, 2009

2009 OCT 15 PM 3:40

Commissioner Alice Seagren
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113-4266

Re: Letter of Support for the Statewide Longitudinal Data Systems Grant

Dear Commissioner Seagren:

The Minnesota Chamber of Commerce wishes to express its full support of your work on the expanded Minnesota Education Longitudinal Data System. The four-year project to unify the education data infrastructure and ensure interconnectivity across organizations for the purpose of analysis, planning and accountability will be of great benefit to the Chamber's 2,400 member businesses because it will help educators identify the predictors of long-term student success and define the activities that contribute the most to student achievement.

The data system will provide a comprehensive foundation for documenting the long term performance of students, teachers, schools, and colleges. Data alone cannot improve performance, but it can allow us to better understand how students are doing; test new learning strategies and strengthen school, administrator and teacher accountability measures.

Your final product, a linked K-12 student information system with data on students who graduate from a Minnesota public high schools and attend a Minnesota public or private post-secondary institution at the undergraduate level (approximately 40,000 high school graduates annually) with expanded workforce data, will provide the state with a valuable tool that will help increase student achievement. The Minnesota Chamber hopes to play an active role in the development of this data base. And, when it is complete, use the results to set goals for improving student achievement and monitor our progress toward reaching them.

Sincerely,

William A. Blazar
Senior Vice President
Public Affairs & Business Development

WAB:mb

400 ROBERT STREET NORTH, SUITE 1500, ST. PAUL, MN 55101
T: 651/292-4650 800/821-2230 F: 651/292-4656 WWW.MNCHAMBER.COM

Minnesota Children's Museum

Smart Play

October 13, 2009

Cathy Wagner, Director
Information Technology Division
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Ms. Wagner:

The Governor's Early Childhood Advisory Council (ECAC) is pleased to partner with the Minnesota Department of Education (MDE) on the Minnesota Education Longitudinal Data System grant. This data partnership with Early Learning, K-12 and the Minnesota Office of Higher Education to effectively link and manage education data consistent with requirements set forth in the American Recovery and Reinvestment Act and America Competes Act for research, evaluation, planning and analysis fits neatly with the goals, objectives and charges of our early childhood council.

The Governor's Council is established under the Head Start Reauthorization Act of 2007. One of the Council's primary charges according to federal law is to "develop recommendations regarding the establishment of a unified data collection system." The Council views this agreement to work with MDE on the data system grant as an opportunity to ensure that valid, reliable and relevant data is available for use by policy makers, researchers, school districts, early learning programs and parents to improve planning, evaluation and policy development for Minnesota's youngest citizens.

The Council has convened a committee to look at accountability issues that includes the examination of five system components that work together to support successful assessments, accurate reporting and effective program improvement efforts. It has identified number of key issues to examine as it works to develop a state early learning system in order to improve the educational outcomes so that all children are school ready by 2020. Being part of this effort will assist the Council in tracking children longitudinally to chart progress in meeting this goal.

As a partner in this grant effort, the ECAC members and staff will work with MDE staff to further refine the purposes and uses of data to be collected, identify needed data elements, determine capacity and feasibility to share data across programs and service systems, create guidelines for developing baseline information on programs, children and early learning delivery systems, and develop guidelines for using data for continuous improvement.

We look forward to our working together on behalf of Minnesota's young children and families.

Sincerely,

Sarah Caruso

Sarah Caruso, Chair
Governor's Early Childhood Advisory Council

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MINNESOTA ELEMENTARY SCHOOL PRINCIPALS' ASSOCIATION

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Jon H. Millerhagen, President
P. Fred Storti, Executive Director
Roger J. Aronson, Legal and Legislative Counsel

October 14, 2009

Commissioner Alice Seagren
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113-4266

Dear Commissioner Seagren,

The purpose of this letter is to support the Minnesota Department of Education's (MDE) Minnesota Education Longitudinal Data System grant proposal. As executive director of the Minnesota Elementary School Principals' Association (MESPA), I know the importance of this partnership with Early Learning,
K-12 and the Minnesota Office of Higher Education is intended to effectively link and manage education data consistent with requirements set forth in the American Recovery and Reinvestment Act and America Competes Act for research, evaluation, planning and analysis

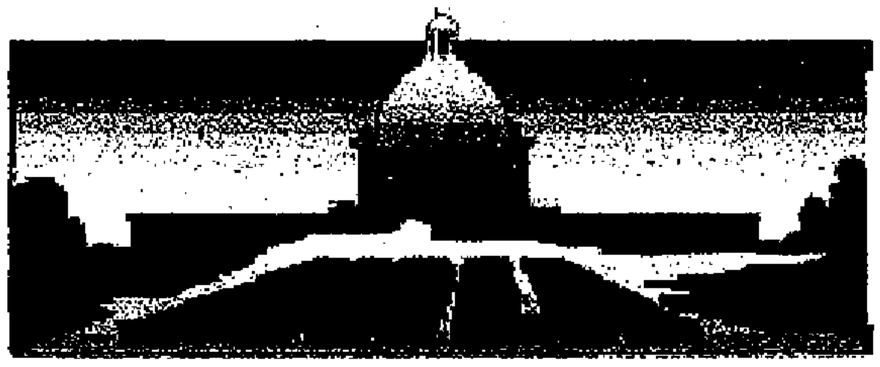
The general purpose of the Minnesota Education Longitudinal Data System is to identify the predictors of long-term student success beginning with pre-Kindergarten continuation through higher education-in other words, define "what makes a difference" in the academic experiences of students.

The data system will provide a comprehensive foundation for documenting the performance of students, teachers, schools, and colleges, while improving the ability to address questions about Minnesota's investment in education. Data alone cannot improve performance but it can support the careful consideration of issues and analysis leading to action that Minnesota principals will lead.

We support this project and need grant funding for it to come to fruition.

Yours for better education,

P. Fred Storti
Executive Director,
Minnesota Elementary School Principals' Association



Minnesota Rural Education Association
PO Box 155
Brandon, MN 56315
320-762-6574 office@mnrea.org

September 15, 2009

Letter of Support for Minnesota Department of Education
Statewide Longitudinal Data Systems Grant Proposal

The Minnesota Rural Education Association recognizes the vital importance of having a comprehensive data system that will help educators in all parts of our state track student progress, link their achievement to teachers, principals to their schools and understand the link between preparation programs and educational success. It is our hope that such a system will result in helping educators understanding what makes a difference in student success and utilize that information to create dramatic improvement in our educational system to the benefit of all students.

The Minnesota Rural Education Association represents 150 rural districts, approximately 40% of our independent school districts. We continually work to improve the learning opportunities for children and to support systems that will help us close the achievement gap. For those reasons, the Minnesota Rural Education Association supports the Statewide Longitudinal Data Systems Proposal and would ask that it be funded.

Sincerely,

Lee Warne

Lee Warne, Executive Director
Minnesota Rural Education Association

OFFICE OF THE CHANCELLOR
JAMES H. McCORMICK
Chancellor

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Minnesota
STATE COLLEGES
& UNIVERSITIES

November 25, 2009

The Honorable Alice Seagren
Commissioner
Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Commissioner Seagren:

By this correspondence, I am pleased to write in support of the Minnesota Department of Education's proposal that is being submitted in response to the Institute for Education Sciences Grants for Statewide Longitudinal Data Systems (CFDA Number: 84.384). The Minnesota State Colleges and Universities system has been a partner in the development of the Minnesota Education Longitudinal Data System (LDS) proposal and will continue to partner in the implementation of this important project. We support this proposal both because of its significant potential benefits for the state of Minnesota and because of its benefits for the Minnesota State Colleges and Universities system.

The benefits of implementing an LDS for the state will be multi-faceted. It will provide policymakers with an ongoing performance assessment of the state's pre-kindergarten through higher education system (P-20) with results that also can be reported at the district, school, and college levels. The LDS will support analysis of performance gaps among groups of students and institutions to better focus improvement initiatives. The partnership with the Minnesota Department of Employment and Economic Development will permit the assessment of employment outcomes for P-20 students and graduates.

The Longitudinal Data System project also will provide benefits to the Minnesota State Colleges and Universities system, the state's access and opportunity higher education institutions. With 25 open door community and technical colleges and seven comprehensive state universities, the system is the largest provider of higher education in Minnesota, serving 400,000 students annually in credit and non-credit courses and enrolling 64 percent of the state's undergraduate students. The LDS project will provide the system with the potential to improve student success through access to students' secondary education data elements, such as test scores, courses, and grades. These elements will enable us to identify gaps in student persistence and performance and formulate improvement strategies. Further, the inclusion of Adult Basic Education student records in the LDS will permit the system to assess the effectiveness of its Joyce Foundation funded FastTrac initiative, which is designed to provide work-readiness and occupational skills training to low wage and/or low skilled adults.

We remain committed to working collaboratively with the Minnesota Department of Education, the Minnesota Office of Higher Education, the University of Minnesota, and Minnesota's private colleges and universities to support the grant proposal and complete development and implementation of the Minnesota Education Longitudinal Data System.

Sincerely,

James H. McCormick

James H. McCormick

STATE UNIVERSITIES
Bemidji State University
Metropolitan State University
Minnesota State University, Mankato
Minnesota State University Moorhead
St. Cloud State University
Southwest Minnesota State University
Winona State University

STATE COLLEGES
Alexandria Technical College
Anoka-Ramsey Community College
Anoka Technical College
Central Lakes College
Century College
Dakota County Technical College
Fond du Lac Tribal & Community College
Hennepin Technical College
Inver Hills Community College
Lake Superior College
Minneapolis Community & Technical College
Minnesota State College-Southeast Technical
Minnesota State Community & Technical College
Minnesota West Community & Technical College
Normandale Community College
North Hennepin Community College
Northeast Higher Education District
- Hibbing Community College
- Itasca Community College
- Mesabi Range Community & Technical College
- Rainy River Community College
- Vermilion Community College

Northland Community & Technical College
Northwest Technical College*
Pine Technical College
Ridgewater College
Riverland Community College
Rochester Community & Technical College
St. Cloud Technical College
Saint Paul College
South Central College

* Northwest Technical College is aligned with Bemidji State University.

The Rochester Public Schools
Independent School District #535
615 7th St. SW • Rochester, Minnesota 55902-2052
Office of the Superintendent • Telephone (507) 328-4256 • FAX (507) 328-4121

Commissioner Alice Seagren
1500 Highway 36 West
Roseville, Minnesota 55113-4266

Re: Letter of Support for the Statewide Longitudinal Data Systems Grant

Dear Commissioner Seagren:

As a district, the Rochester Public Schools would like to write this letter in support of the state's application for the Statewide Longitudinal Data Systems Grant under the American Recovery and Reinvestment Act of 2009. We believe the capability to design, develop and implement statewide P-20 longitudinal data systems that capture and analyze student data holds the promise to expand what we know about critical areas in education.

The potential benefits of a statewide longitudinal data system would include:

- Identifying predictors of academic failure and/or success which would allow us to more intentionally adjust current practice to better meet the needs of all students both early, and throughout, their educational experience
- Identifying effective programs that equip students with the strategies and skills necessary for sustained learning
- Identifying teacher effectiveness and replicating best practices
- Analyzing teacher preparedness and improving teacher preparation programs (i.e., including higher education, district supported New Teacher Orientation, etc.)
- Expanding research on effective professional development frameworks
- Increasing the capacity of local districts to access and share student information electronically
- Identifying systems that result in improved student achievement (e.g., leadership models, instructional practices, curriculum design, etc.)

We believe such a data system would provide the necessary framework to document levels of performance by critical educational stakeholders and prepare our students to be competitive in a multi-ethnic, global economy.

Sincerely,

Romain Dallemand, Ed.D
Superintendent

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Institute of Child Development
College of Education and Human Development

51 East River Road
Minneapolis, MN 55455-0345
Office: 612-624-0526
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http://www.education.umn.edu/ICD

October 25, 2009

Cathy Wagner, Director
Information and Technology Division
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113

Dear Ms. Wagner:

The HCRC is a partnership of the University of Minnesota and the Federal Reserve Bank of Minneapolis to advance multidisciplinary research on child development and social policy. The HCRC's approach is integrative and representative of the cross-college and university-wide interest in advancing research and scholarship on the identification and dissemination of cost-effective interventions, programs, and policies from birth to the transition to adulthood. HCRC supports the Minnesota Department of Education (MDE) proposal to expand the Minnesota Education Longitudinal Data System: a four-year project to unify the education data infrastructure and ensure interconnectivity across agencies for the purposes of planning and analysis. This data partnership with Early Learning, K-12 and the Minnesota Office of Higher Education is intended to effectively link and manage education data consistent with requirements set forth in the American Recovery and Reinvestment Act and America Competes Act for research, evaluation, planning and analysis.

A primary goal of the Minnesota Education Longitudinal Data System is to identify the predictors of long-term student success beginning with prekindergarten continuing through higher education– in other words, define "what makes a difference" in the academic experiences of students. Our organization is very interested in what makes a difference for young children and their families. Although education and the acquisition of skills is a lifelong process, starting early in life is crucial. Recent research has documented the high returns that early childhood programs can pay in terms of subsequent educational attainment. Improving Minnesota's educational data system will only enhance further research and policy development in early learning.

Therefore, we applaud MDE's efforts at securing this grant and offer our ongoing support to the project.

Sincerely,

Arthur J. Reynolds
Professor

Budget Narrative

Budget Narrative - Budget Justification

Attachment 1:
Title: **Minnesota budget justification** Pages: **0** Uploaded File: **C:\Documents and Settings\crhombs\Desktop\Budget Justification for the Minnesota Department of Education.pdf**

Budget Narrative (Justification)

The information included in this section describes the resources necessary for the Minnesota Department of Education (MDE) to accomplish the proposed project. The budget supports the three System Improvement Goals and their aligned Outcomes.

- **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). *Four products* meet this outcome:

    1. SERVS Base Infrastructure
    2. SERVS student
    3. SERVS Staff
    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. *One product* meets this outcome:

    5. 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. *Two products* meet this outcome:

    6. An Extended Educator Portal

    7. P-20 Research Portal of Minnesota

When fully operational, these seven products will comprise an integrated, state level enterprise longitudinal data system for research and analysis across P-20 education and the workforce. The budget is organized by the personnel, hardware and software needed to deliver each product line as well as other definitional, training and outreach efforts.

High Level Budget Overview
The budget summary provided in this section details separate costs for overarching project management and each of the seven products. The SIF Pilot, SLEDS and Business Intelligence tools are notable high cost areas each requiring significant equipment purchases or support from external software vendors.

Personnel are also identified. A large percentage of the funding for this proposal is intended to support additional staff required to supplement existing MDE teams to deliver each of the product lines. Several senior MDE development staff and internal subject matter experts have been included in the project schedule to provide continuity for product development. They are supported through in-kind funding, and those costs are not included in the budget details. Only project supported staff are included.

Proposed resource costs integrate in-kind personnel salaries, projected fringe benefits, travel equipment, supplies, contractual services, indirect costs, and training-related expenses. All estimates are based on current salaries and wages, current costs and/or MDE past purchases, and accounting data. Following are descriptions of the expenses included in each category.

Budget Summary
Cost details for project management oversight and each product line are summarized below:

<u>Project Management Oversight Activities</u>
This budget category will support the general project oversight provided by the project director and the project manager. Each is scheduled for 50% time dedicated to this project with 25% directly billed and 25% in-kind.

PM	Amount	PM Oversight Activities Description	Assumptions
Year 1	$66,882	Project Oversight	Project Director and Project Manager at 25% each
Year 2	$66,882	Project Oversight	Project Director and Project Manager at 25% each
Year 3	$66,882	Project Oversight	Project Director and Project Manager at 25% each
Total	$200647		

Product 1- SERVS Base Infrastructure – SERVS Base Infrastructure contains three sub-projects as follows:

Sub-Project 1 - SIF Pilot (Student Locator): The data collection required to support this grant proposal will increase the level of reporting required for each Local Education Agency (LEA). To minimize the increased reporting burden and to further MDE's desire to use SIF, a student locator implementation pilot will provide foundational work for reporting automation.

	Amount	SIF Pilot Student Locator Description	Assumptions
Year 1	$149,625	MDE will engage SIF professional services to work with agency personnel to define and structure the Pilot	Engage SIFA professional services
Year 2	$1,256,850	Significant cost is included to provide for Zone Information Servers as well as LEA adapter development and configuration	$750,000 for ZIS for districts and $300,000 for adapters and vendor professional services
Year 3	$59,100	Effort and cost is focused on rollout and delivery to 100-150 districts.	$300,000 for vendor professional services
Total	$1,765,575		

Sub-Project 2 - EDM Facilities Changes: The need to break down legacy information silos and support SIF requires MDE to create a more consistent "educational enterprise" view of our student and teacher data. Based upon SIF and NCES Handbook definitions, MDE will be work in the background of each project on data modeling to support consistent sharing among state departments and agencies involved in the Statewide Longitudinal Educational Data System (SLEDS). This work will occur in each of the three years of the project with the major focus and cost occurring in year one.

	Amount	EDM Facilities Changes Description	Assumptions
Year 1	$313,427	Prepare the submission and collection systems to collect and store newly required information sets including student, teacher, organization data linking through the Minnesota Common Course Catalogue courses and course sections.	Internal MDE domain experts and IT resources to modify and transition existing system.
Year 2	$71,640	Support and enhance new collections	Internal MDE domain experts and IT resources
Year 3	$2,6865	Support and enhance new collections	Internal MDE domain experts and IT resources
Total	$411,933		

Sub-Project 3 - COTS Network and Server Support: As with any large collection of products linked into a system, MDE will be required to expend resources to support products and services. Examples include database products, network-based servers and supporting development, staging and testing platforms as well as product support.

	Amount	COTS Network and Server Support Description	Assumptions
Year 1	$74,625	Prepare the network, system, software and other configuration environments for development, staging and production of new products.	Internal MDE domain experts and IT resources
Year 2	$29.850	Support and enhance new environments	Internal MDE domain experts and IT resources
Year 3	$20,895	Support and enhance new environments	Internal MDE domain experts and IT resources
Total	$125,371		

<u>Product 2- SERVS Student</u>

The SERVS Student system finalizes MDE's move away from the use of unrelated, silo-based information systems to collect student data. SERVS Student enforces edits and coordinates the submission and collection requirements of all existing MDE collections as well as the new collections planned for full implementation of the activities in this grant proposal. Examples of collections include GPA, Class Rank, Graduation requirements, Disciplinary Incidents and Enrollment. The initial, primary focus is support for inclusion of "course and section" submission and collection to create the course link between teachers, students and organizations. SERVS Student will be primarily created and managed by MDE internal domain expertise.

	Amount	SERVS Student Description	Assumptions
Year 1	$319,412	Requirements and focus groups effort to modify and extend MDE Student systems (such as enrollment, discipline, special education) to collect required new information and link information in the data model.	Internal MDE domain experts, IT resources and external subject matter experts
Year 2	$690,145	Development, QA and rollout effort to modify and extend MDE Student systems (such as enrollment, discipline, special education) to collect required new information and link information in the data model.	Internal MDE domain experts and IT resources
Year 3	$155,827	Rollout and training on all new systems as well as final enhancements and maintenance.	Internal MDE domain experts and IT resources
Total	$1,165,384		

Product 3 - SERVS Staff

The SERVS Staff system finalizes MDE's move away from unrelated, silo-based information systems that collect staff data. SERVS Staff enforces edits and coordinates the submission and collection requirements of all existing MDE collections as well as new collections planned for full implementation of the activities in this grant proposal. Examples of collections include licensing, investigation, and continuing education. An initial, primary focus is to support the inclusion of "course and section" submission and collection to create the course link between teachers, students and organizations. SERVS Staff will be primarily created and managed by MDE internal domain expertise.

	Amount	SERVS Staff Description	Assumptions
Year 1	$155,236	Requirements and focus groups effort to modify and extend MDE Staff systems (such as license, discipline, special education, staff assignments) to collect required new information and link information in the data model.	Internal MDE domain experts, IT resources and external subject matter experts
Year 2	$481,194	Development, QA and rollout effort to modify and extend MDE Staff systems (such as license, discipline, special education, staff assignments) to collect required new information and link information in the data model.	Internal MDE domain experts and IT resources
Year 3	$397,613	Rollout and training on all new systems as well as final enhancements and maintenance.	Internal MDE domain experts and IT resources
Total	$1034,043		

Product 4 SERVS Organization

The SERVS Organization system finalizes MDE's move away from unrelated, silo-based information systems that collect organizational data. SERVS Organization enforces edits and coordinates the submission and collection requirements of all existing MDE collections as well as new collections planned for full implementation of the activities in this grant proposal. Examples of collections include districts, schools and other educational organizations and sites. An initial, primary focus is to support the inclusion of "course and section" submission and collection to create the course link between teachers, students and organizations. SERVS Organization will be primarily created and managed by MDE internal domain expertise.

	Amount	SERVS Org Description	Assumptions
Year 1	$228,664	Requirements and focus groups effort to modify and extend MDE Organization systems (such as site, location, staff assignments, enrollment) to collect required new information and link information in the data model.	Internal MDE domain experts, IT resources and external subject matter experts

Year 2	$540,894	Development, QA and rollout effort to modify and extend MDE Organization systems (such as site, location, staff assignments, enrollment) to collect required new information and link information in the data model	Internal MDE domain experts and IT resources
Year 3	$158,812	Rollout and training on all new systems as well as final enhancements and maintenance.	Internal MDE domain experts and IT resources
Total	$928,371		

Product 5 – Statewide Longitudinal Education Data System (SLEDS)

SLEDS is a multi-agency cooperative effort to create a P-20 Warehouse. This cooperation includes the Office of Enterprise Technology (OET) which will be responsible for hosting and security, the Office of Higher Education (OHE) which will be responsible for P-20 data elements, the Department of Employment and Economic Development (DEED) which will be responsible for employment and labor data. MDE will be responsible for project management and design oversight.

	Amount	SLEDS Description	Assumptions
Year 1	$391,531	MDE and other agencies will form a governance board to create the requirements as well as policy and data sharing agreements necessary to carry out this project. Contractual funding is budgeted for this effort primarily to include each agency as well as initial vendor involvement.	$50,000 for interagency governance to OHE, DEED and OET and $110,000 for Warehouse Vendor . Remaining funds for internal and external Subject Matter Experts (SME) and developers
Year 2	$1,080,293	Cross-agency and vendor effort to create, install, configure and rollout into production the statewide P-20 warehouse. In addition, funding is included to cover hardware and software required to support the system at the Office of Enterprise Technology.	$400,000 for warehouse vendors to support design and ETL. An additional $300,000 is targeted for purchase of the platforms and software necessary to create production systems at OET.
Year 3	$840,593	The cross-agency groups will continue to enhance the warehouse and data extracts to populate the information. In year three, effort and cost is focused on vendor and agency effort to create views and structures of the data to support the enhanced analytics.	$400,000 for warehouse vendors to help with design and ETL.
Total	$2,312,417		

Product 6 –Educator Portal Enhancements: The Educator Portal will be expanded to include significant new reporting and analysis capability based on the new data collections. This data, provided in the context of MDE's secure Educator Portal, will allow authorized educators access to student level data. Costs associated with this proposal are focused primarily on MDE domain expertise and educator focus groups working with business analysis vendors to create value-added analytics.

	Amount	Student Enhanced Analytics (Portal) Description	Assumptions
Year 1	$210,522	MDE, Value-Added Research Center (VARC) staff, educator focus groups and a Business Intelligence (BI) vendor will work together to create requirements, specification, and a work plan to deliver high-value, educational analytics based on information to be collected in the enhanced SERVS systems.	$25,000 for VARC consulting and $100,000 for BI consulting.
Year 2	$837,601	MDE, VARC staff, and a BI vendor will work together to implement and rollout the high-value, educational analytics based on information to be collected in the enhanced SERVS systems.	$25,000 for VARC consulting, $400,000 for BI vendors and $200,000 for contractors with BI experience to create the high-value analytics
Year 3	$1,045,954	MDE, VARC staff, and a BI vendor will work together to complete any additional high-value analytics and satisfy additional requirements from focus groups.	$25,000 for VARC consulting, $300,000 for BI vendors and $200,000 for contractors with BI experience to create the high-value analytics
Total	$2,094,077		

Product 7 P-20 Research Portal of Minnesota (P-20 RPM)
The effort is targeted at creating a "portal" against the SLEDS data system. This portal will provide access to anonymous, individual P20 and workforce data for educational researchers. There will significant new reporting and analysis capability based on the new data collections. The data provided in the context of OET's secure Portal will allow authorized educators access to anonymous-level data. Costs associated with this product are focused primarily on the SLED governance domain expertise and educator focus groups working with Business Intelligence vendors to create valued-added analytics.

	Amount	Student Enhanced Analytics (P20 RPMl) Description	Assumptions
Year 1	$255,447	MDE, VARC staff, research focus groups, and a Business Intelligence vendor will work together to create requirements, specification, and a work plan to deliver high-value educational analytics based on information to be developed in the SLED warehouse.	$75,000 for VARC consulting and $100,000 for BI analytic report creation consulting.
Year 2	$568,351	MDE, VARC staff, and a Business Intelligence vendor will work together to implement and rollout systems that deliver high-value educational analytics based on information in the SLED warehouse.	$50,000 for VARC consulting and $400,000 for BI analytic report creation consulting.
Year 3	$1075,654	MDE, VARC staff, and a Business Intelligence vendor will work together to complete any additional high-value analytics and satisfy additional requirements from focus groups based on information to in the SLED warehouse.	$50,000 for VARC consulting and $300,000 for BI analytic report creation consulting.
Total	$1899,452		

Personnel FTE

The work proposed in this project will involve both existing, permanent and temporary, contracted personnel. Existing, permanent personnel will be partially funded by this award and MDE will also contribute in-kind personnel services.

1. Existing, permanent MDE personnel include:
    a. Information Technology Director Cathy Wagner will provide overall project definition and oversight at 25% time for the project duration.

    b. Chief Information Officer John Paulson will provide overall project development coordination at 25% time for the project duration.

    c. Internal MDE Subject Matter Experts (ISMEs) are included at 10% time. They represent MDE expertise in these areas:
        i. Early Childhood education (Lisa Baker, Karen Carlson)
        ii. Effective Teacher Preparation (Karen Balmer, John Melick)
        iii. Shared Stakes Accountability (Dirk Mattson)
        iv. Q Comp(Pat King)
        v. M2D3 (Margaret Biggerstaff)
        vi. MIERS (Cammy Lehr)
        vii. AP Access (Sally Whery)

d. External Subject Matter Experts (ESMEs) are included at 10% time and are fully supported from project funds. They provide expertise in these areas:
    i. Value-Added Analysis (Jeff Watson, Chris Thorn, Rob Meyer)
    ii. SLEDS data from post secondary institutions (Alexandra Djurovitch)
    iii. School-to-Work (Oriane Casseel)

e. Interagency Coordinators are scheduled at 25% time and are fully supported from project funds.
    i. Office of Enterprise Technology (OET) – Jim Stienwand
    ii. Office of Higher Education (OHE) – Meredith Fergus
    iii. Department of Employment and Economic Development (DEED) – Steve Hine

f. Existing MDE Project Managers are included at 100% time to oversee individual components of the overall project and are funded as noted below:
    i. SERVS Base Infrastructure (Craig Rhombs - in-kind)
    ii. SERVS Student Systems (Craig Rhombs - in-kind)
    iii. SERVS Staff Educator Licensing and Teacher Quality (Sally Gordon - project funded)
    iv. SERVS Organizational Information (Jonathan Lord - project funded)
    SLEDS Statewide Longitudinal Educational Data System (Jenifer Marier - project funded)
    v. Enhanced Analytics/Educator Portal (Jenifer Marier - project funded)
    vi. Enhanced Analytics/P20 RPM (Jennifer Marier - project funded)

g. Existing MDE Senior Java Developers at 100% time are are funded as noted below:
    i. Joe Schemenauer (in-kind)
    ii. David Reeg (in-kind)
    iii. Kapil Gulati (in-kind)
    iv. Gene Kimball (project funded)
    v. Jagannadham Yoganand (project funded)

h. Existing MDE Network engineers at 10% time are supported with project funds:
    i. Gerhard Kessel
    ii. Pete Mitchell

i. Existing MDE Quality Assurance Engineers at 25% time are supported with project funds:
    i. Carol Freihammer

ii. Mary Somora

j. Existing MDE Database Administrators at 10% time are supported with project funds:
   i. Monte Grosso
   ii. Terry Sorg

2. Additional MDE temporary, unclassified personnel fully funded by this grant include:
   a. An additional four FTE 100% time Senior Java Developers will be hired to complete foundational data collection and analysis components.
   b. An additional two FTE 100% time Senior SQL Developers will be hired to complete ETL and foundational data warehouse design in conjunction with vendor- supported efforts described under contracting.
   c. A technical writer will be hired at 100% time to manage the overall project documentation, communications and publications.
   d. Starting in the middle of the second year, training staff will be required at 50% time for duration of the project to facilitate the rollout.
   e. Four additional business analysts will be required to assist project managers throughout the project. They will be responsible for documenting requirements, helping to manage vendors, schedules, deliverables, training, rollout and communications.

Every attempt will be made to hire temporary, unclassified personnel for additional personnel noted above. They will be hired in a three-year, temporary job classification to take advantage of hiring at the less expensive state employee rate. Provisions in the budget show a realistic combination, based on experience, of temporary unclassified and professional services.

In-Kind MDE Costs

Not included in the grant funds request are the MDE in-kind or matching funds. These will be provided by MDE as follows:

1. The additional 25% services for Cathy Wagner, IT Director. Ms Wagner will provide overall project direction and oversight.
2. The additional 25% services for John Paulson, CIO. Mr. Paulson will provide overall project development coordination.
3. Additional development and project management personnel as noted above.
4. Additional personnel from operations and support areas funded by the State will be utilized on the project as detailed in the budget breakdown.

Benefits/Fringe Costs
Fringe benefit rates vary by employee classification, as established by the State of Minnesota system policies. A blended 33% fringe rate has been used to calculate this budget.

Travel
Travel has been divided into two broad categories:

1) *Out of state travel associated with national PK-20 and grant administration travel.* These estimates are included in the travel category. Travel is estimated at $2000/person per trip with three people on two trips per year.

2) *In state travel for education, training, marketing and mapping assistance for district movement to the Minnesota Common Course Catalog, Electronic Transcripts, additional submission requirements, linking students and teachers, and additional compliance.* This in state cost has been assigned per project subtask.

Equipment
Hardware and software for this grant are expected to be extensive. The main categories of costs breakdown as follows:

<u>Hardware</u>

1. SERVS Base Infrastructure – SIF Pilot Student Locator: Additional hardware costs are associated with the rollout of a School Interoperability Framework (SIF) Student Locator. Accurate estimates in this area are difficult prior to developing the RFP. Our costs estimates are based on historical efforts of other states and include Zone Information Servers for 100-150 districts.

2. SLEDS: The statewide educational longitudinal educational data system will reside at the Minnesota Office of Enterprise Technology. Additional Commercial Off-The-Shelf (COTS) network and servers are required to provide statewide access to the SLEDS warehouse. This warehouse will have a significant hardware foot print and costs associated with that hardware are shown in the overall schedule.

<u>Software</u>

1. SERVS Base Infrastructure – SIF Pilot Student Locator: Additional software costs are associated with the rollout of the School Interoperability Framework (SIF) Student Locator. Accurate estimates in this area are difficult prior to developing the RFP. Our costs estimates are based on historical efforts of other states and include SIF adapters for 100-150 districts to support the SIF Student Locator Message.

2. SLEDS: Additional COTS software is required to provide statewide access to the SLEDS system including the data base. Because SLEDS will be a State of Minnesota educational warehouse that contains data from multiple Minnesota state agencies, the MDE IBI WebFocus license will need to be extended to cover the non-MDE application.

Supplies

Basic work station supplies are budgeted in this proposal for new employees.

Contractual

Contractual Expenses are broken into three broad categories.

(1) Professional vendor services will be required to implement, install and configure SIF student locator agents at participating school districts. Because each district is unique and Minnesota school districts maintain School Information System independence, an estimated seven to ten adapter configuration and developments will be required for the SIF Student Locator Pilot.

(2) Professional vendor services will be required to create SLEDS, implement, install and configure enhanced analytics necessary to make data from the SLEDS warehouse available and useful to end users. These services fall under the following categories:

a. Enhanced analytics for MDE and district educators via the MDE Educator Portal using the new Information Builders WebFocus reporting capability already in house.
b. Enhanced analytics for P20 Portal that includes Minnesota and national researcher access to the SLED statewide warehouse.

(3) Inter-agency spending will be managed by MDE throughout this grant. Costs resulting from other agencies requirements to provide data, subject matter expertise and oversight are included in the grant "Agency Transfer" category. That category will support the efforts of these agencies:

a. Department of Employment and Economic Development
b. Office of Higher Education, the Minnesota
c. Office of Enterprise Technology.

Indirect Costs

This item covers the following project support costs: 1) administration of grants, contracts, subcontracts and agreements, 2) budget consultation and preparation, 3) programmatic accounting, financial reporting/monitoring, 4) fiscal consultation, 4) personnel services/activities,

5) policy procedure and regulation consultation, 6) expenditure audit/review, 7) facility and equipment management, 8) computer and multimedia support (not covered by direct costs), 9) mail and shipment delivery, 10) secretarial pool management, 11) telephone installation, rental and general usage, 12) normal equipment service, 13) normal editorial and graphic service, 14) office supplies and miscellaneous program support, 15) facility operation and maintenance and 16) building usage charge.

Training

MDE will not need to provide training stipends for this effort. Much of the training for products developed through this proposal is included in the Race to the Top Application, which will use the expanded data capacity provided through the activities of the grant proposal.

Budget Narrative

Budget Narrative - ED 524 Section C Spreadsheet

Attachment 1:
Title: **Minnesota budget spreadsheet** Pages: **0** Uploaded File: **C:\Documents and Settings\crhombs\Desktop\LDS2-2009.pdf**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

Budget Summary

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$862,500	$1,665,000	$1,623,750	$4,151,250
2 TOTAL FRINGE BENEFITS	$284,625	$549,450	$535,838	$1,369,913
3. TRAVEL	$18,000	$18,000	$18,000	$54,000
4. TOTAL EQUIPMENT	$0	$1,050,000	$0	$1,050,000
5. SUPPLIES	$9,000	$0	$0	$9,000
6. CONTRACTUAL	$585,000	$1,700,000	$1,450,000	$3,735,000
7. TOTAL DIRECT COSTS	$1,759,125	$4,982,450	$3,627,588	$10,369,163
8. INDIRECT COSTS	$346,548	$981,543	$714,635	$2,042,725
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$2,105,673**	**$5,963,993**	**$4,342,222**	**$12,411,888**

State Funding

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$149,250	$186,750	$245,625	$581,625
2 TOTAL FRINGE BENEFITS	$49,253	$61,628	$81,056	$191,936
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$0	$0	$0	$0
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$198,503	$248,378	$326,681	$773,561
8. INDIRECT COSTS	$39,105	$48,930	$64,356	$152,392
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$237,607**	**$297,308**	**$391,037**	**$925,953**

Minnesota Department of Education
PRODUCT SUMMARY

	PM Oversight Activities	SERVS Base Infrastruct	SERVS Student	SERVS Staff	SERVS Org	Statewide Warehouse (SLEDS)	Student Enhanced MDE Analytics - Educator	Student Enhanced MDE Analytics - P20 RPM	Total
1 TOTAL PERSONNEL	$112,500	$635,625	$723,750	$641,250	$575,625	$496,875	$468,750	$496,875	$4,151,250
2 TOTAL FRINGE BENEFITS	$37,125	$209,756	$238,838	$211,613	$189,956	$163,969	$154,688	$163,969	$1,369,913
3. TRAVEL	$18,000	$0	$9,000	$9,000	$9,000	$9,000	$0	$0	$54,000
4. TOTAL EQUIPMENT	$0	$750,000	$0	$0	$0	$300,000	$0	$0	$1,050,000
5. SUPPLIES	$0	$0	$2,000	$2,000	$1,000	$2,000	$1,000	$1,000	$9,000
6. CONTRACTUAL	$0	$725,000	$0	$0	$0	$960,000	$1,125,000	$925,000	$3,735,000
7. TOTAL DIRECT COSTS	$167,625	$2,320,381	$973,588	$863,863	$775,581	$1,931,844	$1,749,438	$1,586,844	$10,369,163
8. INDIRECT COSTS	$33,022	$457,115	$191,797	$170,181	$152,790	$380,573	$344,639	$312,608	$2,042,725
9. TRAINING STIPENDS	$0	$0	$0	$0	$0	$0	$0	$0	$0
10. TOTAL	**$200,647**	**$2,777,496**	**$1,165,384**	**$1,034,043**	**$928,371**	**$2,312,417**	**$2,094,077**	**$1,899,452**	$12,411,888

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

PMOversight

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$37,500	$37,500	$37,500	$112,500
2 TOTAL FRINGE BENEFITS	$12,375	$12,375	$12,375	$37,125
3. TRAVEL	$6,000	$6,000	$6,000	$18,000
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$0	$0	$0	$0
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$55,875	$55,875	$55,875	$167,625
8. INDIRECT COSTS	$11,007	$11,007	$11,007	$33,022
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$66,882**	**$66,882**	**$66,882**	**$200,647**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

SERVS Base Infrastructure

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$206,250	$277,500	$151,875	$635,625
2 TOTAL FRINGE BENEFITS	$68,063	$91,575	$50,119	$209,756
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$750,000	$0	$750,000
5. SUPPLIES	$0	$0	$0	$0
6. CONTRACTUAL	$125,000	$300,000	$300,000	$725,000
7. TOTAL DIRECT COSTS	$399,313	$1,419,075	$501,994	$2,320,381
8. INDIRECT COSTS	$78,665	$279,558	$98,893	$457,115
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$477,977**	**$1,698,633**	**$600,887**	**$2,777,496**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

SIF Subproject

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$0	$0	$0	$0
2 TOTAL FRINGE BENEFITS	$0	$0	$0	$0
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$750,000	$0	$750,000
5. SUPPLIES	$0	$0	$0	$0
6. CONTRACTUAL	$125,000	$300,000	$300,000	$725,000
7. TOTAL DIRECT COSTS	$125,000	$1,050,000	$300,000	$1,475,000
8. INDIRECT COSTS	$24,625	$206,850	$59,100	$290,575
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$149,625**	**$1,256,850**	**$359,100**	**$1,765,575**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

EDM Subproject

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$196,875	$45,000	$16,875	$258,750
2 TOTAL FRINGE BENEFITS	$64,969	$14,850	$5,569	$85,388
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$0	$0	$0	$0
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$261,844	$59,850	$22,444	$344,138
8. INDIRECT COSTS	$51,583	$11,790	$4,421	$67,795
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$313,427**	**$71,640**	**$26,865**	**$411,933**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

COTS Network Server and Support Subproject

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$46,875	$18,750	$13,125	$78,750
2 TOTAL FRINGE BENEFITS	$15,469	$6,188	$4,331	$25,988
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$0	$0	$0	$0
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$62,344	$24,938	$17,456	$104,738
8. INDIRECT COSTS	$12,282	$4,913	$3,439	$20,633
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$74,625**	**$29,850**	**$20,895**	**$125,371**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

SERVS Student

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$196,875	$431,250	$95,625	$723,750
2 TOTAL FRINGE BENEFITS	$64,969	$142,313	$31,556	$238,838
3. TRAVEL	$3,000	$3,000	$3,000	$9,000
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$2,000	$0	$0	$2,000
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$266,844	$576,563	$130,181	$973,588
8. INDIRECT COSTS	$52,568	$113,583	$25,646	$191,797
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$319,412**	**$690,145**	**$155,827**	**$1,165,384**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

SERVS Staff

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$93,750	$300,000	$247,500	$641,250
2 TOTAL FRINGE BENEFITS	$30,938	$99,000	$81,675	$211,613
3. TRAVEL	$3,000	$3,000	$3,000	$9,000
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$2,000	$0	$0	$2,000
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$129,688	$402,000	$332,175	$863,863
8. INDIRECT COSTS	$25,548	$79,194	$65,438	$170,181
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$155,236**	**$481,194**	**$397,613**	**$1,034,043**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

SERVS Org

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$140,625	$337,500	$97,500	$575,625
2 TOTAL FRINGE BENEFITS	$46,406	$111,375	$32,175	$189,956
3. TRAVEL	$3,000	$3,000	$3,000	$9,000
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$1,000	$0	$0	$1,000
6. CONTRACTUAL	$0	$0	$0	$0
7. TOTAL DIRECT COSTS	$191,031	$451,875	$132,675	$775,581
8. INDIRECT COSTS	$37,633	$89,019	$26,137	$152,790
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$228,664**	**$540,894**	**$158,812**	**$928,371**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

Statewide Warehouse SLEDS

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$121,875	$150,000	$225,000	$496,875
2 TOTAL FRINGE BENEFITS	$40,219	$49,500	$74,250	$163,969
3. TRAVEL	$3,000	$3,000	$3,000	$9,000
4. TOTAL EQUIPMENT	$0	$300,000	$0	$300,000
5. SUPPLIES	$2,000	$0	$0	$2,000
6. CONTRACTUAL	$160,000	$400,000	$400,000	$960,000
7. TOTAL DIRECT COSTS	$327,094	$902,500	$702,250	$1,931,844
8. INDIRECT COSTS	$64,437	$177,793	$138,343	$380,573
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$391,531**	**$1,080,293**	**$840,593**	**$2,312,417**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

Student Enhanced Analytics Portal

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$37,500	$75,000	$356,250	$468,750
2 TOTAL FRINGE BENEFITS	$12,375	$24,750	$117,563	$154,688
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$1,000	$0	$0	$1,000
6. CONTRACTUAL	$125,000	$600,000	$400,000	$1,125,000
7. TOTAL DIRECT COSTS	$175,875	$699,750	$873,813	$1,749,438
8. INDIRECT COSTS	$34,647	$137,851	$172,141	$344,639
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$210,522**	**$837,601**	**$1,045,954**	**$2,094,077**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING

Student Enhanced Analytics P20 RPM

	Year 1 Budget 6/10-5/11	Year 2 Budget 6/11-5/12	Year 3 Budget 6/12-5/13	TOTAL BUDGET
1 TOTAL PERSONNEL	$28,125	$56,250	$412,500	$496,875
2 TOTAL FRINGE BENEFITS	$9,281	$18,563	$136,125	$163,969
3. TRAVEL	$0	$0	$0	$0
4. TOTAL EQUIPMENT	$0	$0	$0	$0
5. SUPPLIES	$1,000	$0	$0	$1,000
6. CONTRACTUAL	$175,000	$400,000	$350,000	$925,000
7. TOTAL DIRECT COSTS	$213,406	$474,813	$898,625	$1,586,844
8. INDIRECT COSTS	$42,041	$93,538	$177,029	$312,608
9. TRAINING STIPENDS	$0	$0	$0	$0
10. TOTAL	**$255,447**	**$568,351**	**$1,075,654**	**$1,899,452**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING
1st Half Year '6/1/2010 - 11/30/2010'

	Grant	In-Kind	Total
1. PERSONNEL			
PM Oversight Activities	18,750	18,750	37,500
SERVS Base Infrastructure	37,500	0	37,500
SERVS Student	28,125	12,375	40,500
SERVS Staff	46,875	21,750	68,625
SERVS Org	46,875	21,750	68,625
Statewide Warehouse (SLEDS)	46,875	0	46,875
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**225,000**	**74,625**	**299,625**
2. FRINGE BENEFITS			
PM Oversight Activities	6,188	6,188	12,375
SERVS Base Infrastructure	12,375	0	12,375
SERVS Student	9,281	4,084	13,365
SERVS Staff	15,469	7,178	22,646
SERVS Org	15,469	7,178	22,646
Statewide Warehouse (SLEDS)	15,469	0	15,469
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**74,250**	**24,626**	**98,876**
3. TRAVEL			
PM Oversight Activities	3,000	0	3,000
SERVS Base Infrastructure	0	0	0
SERVS Student	1,500	0	1,500
SERVS Staff	1,500	0	1,500
SERVS Org	1,500	0	1,500
Statewide Warehouse (SLEDS)	1,500	0	1,500
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**9,000**	**0**	**9,000**
4. EQUIPMENT			
Hardware			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
Software			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL EQUIPMENT	**0**	**0**	**0**
5. SUPPLIES (desktops @ 1000)			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	2000	0	2,000
SERVS Staff	2000	0	2,000
SERVS Org	1000	0	1,000
Statewide Warehouse (SLEDS)	2000	0	2,000
Student Enhanced MDE Analytics - Educator Portal	1000	0	1,000
Student Enhanced MDE Analytics - P20 RPM	1000	0	1,000
TOTAL SUPPLIES	**9,000**	**0**	**9,000**
6. CONTRACTUAL (Professional Services)			
PM Oversight Activities			
Contractors	0	0	0
Vendors	0	0	0
SERVS Base Infrastructure			
Contractors	0	0	0
Vendors (SIF Pilot)	25,000	0	25,000
SERVS Student			
Contractors	0	0	0
Vendors	0	0	0
SERVS Staff			
Contractors	0	0	0
Vendors	0	0	0
SERVS Org			
Contractors	0	0	0
Vendors	0	0	0
Statewide Warehouse (SLEDS)			
Contractors (OHE, DEED, OET)	50,000	0	50,000
Vendors (State Warehouse Creation)	10,000	0	10,000
Student Enhanced MDE Analytics - Educator Portal			
Contractors (WCER)	25,000	0	25,000
Vendors (Analytic Reporting)	50,000	0	50,000
Student Enhanced MDE Analytics - P20 RPM			
Contractors (WCER)	50,000	0	50,000
Vendors (Analytic Reporting)	50,000	0	50,000
TOTAL	**260,000**	**0**	**260,000**
7. TOTAL DIRECT COSTS			

PM Oversight Activities	27,938	24,938	52,875
SERVS Base Infrastructure	74,875	0	74,875
SERVS Student	40,906	16,459	57,365
SERVS Staff	65,844	28,928	94,771
SERVS Org	64,844	28,928	93,771
Statewide Warehouse (SLEDS)	125,844	0	125,844
Student Enhanced MDE Analytics - Educator Portal	76,000	0	76,000
Student Enhanced MDE Analytics - P20 RPM	101,000	0	101,000
TOTAL	**577,250**	**99,251**	**676,501**

8. INDIRECT COSTS

PM Oversight Activities	5,504	4,913	10,416
SERVS Base Infrastructure	14,750	0	14,750
SERVS Student	8,059	3,242	11,301
SERVS Staff	12,971	5,699	18,670
SERVS Org	12,774	5,699	18,473
Statewide Warehouse (SLEDS)	24,791	0	24,791
Student Enhanced MDE Analytics - Educator Portal	14,972	0	14,972
Student Enhanced MDE Analytics - P20 RPM	19,897	0	19,897
TOTAL	**113,718**	**19,552**	**133,271**

9. TRAINING STIPENDS

PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**0**	**0**	**0**

10. TOTAL

PM Oversight Activities	**33,441**	**29,850**	63,291
SERVS Base Infrastructure	**89,625**	**0**	89,625
SERVS Student	**48,965**	**19,701**	68,666
SERVS Staff	**78,815**	**34,626**	113,441
SERVS Org	**77,618**	**34,626**	112,244
Statewide Warehouse (SLEDS)	**150,635**	**0**	150,635
Student Enhanced MDE Analytics - Educator Portal	**90,972**	**0**	90,972
Student Enhanced MDE Analytics - P20 RPM	**120,897**	**0**	120,897
TOTAL	**690,968**	**118,804**	809,772

		IDC Rate	Base Salary				Fringe Rate	Prof Svcs Rate		
		0.197	75,000.00				0.33	150,000.00		
	Total Project Budget	**Required PYs**	**Grant FTEs**	**Grant Prof Svcs**	**In-Kind State FTEs**	**In-Kind State Prof Svcs**	**Grant Personnel**	**Grant Prof Svcs**	**In-Kind State Personnel**	**In-Kind State Prof Svcs**
PM Oversight Activities	**$37,500**									
Director - Cathy Wagner		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
CIO - John Paulson		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
TOTALS		**1.00**	**0.50**	**0.00**	**0.50**	**0.00**	**$18,750.00**	**$0.00**	**$18,750.00**	**$0.00**
SERVS Base Infrastructure	**$37,500**									
SIF Facilities (Student Lookup Pilot)	$0									
Project Manager - Craig Rhombs		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
SIF Vendor Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Enrollment Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS SIF Facilities		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
EDM Facilities Changes	$37,500									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT EDM - David Reeg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**$37,500.00**	**$0.00**	**$0.00**	**$0.00**
COTS network, server and software support	$0									
Network Engineer - Gerhard Kessel		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	$0.00	$0.00	$0.00	$0.00
TOTALS SERVS Base Infrastructure		**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**$37,500.00**	**$0.00**	**$0.00**	**$0.00**
SERVS Student	**$40,500**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer1 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.08**	**0.75**	**0.00**	**0.33**	**0.00**	**$28,125.00**	**$0.00**	**$12,375.00**	**$0.00**
SERVS Staff	**$68,625**									
Project Manager - Sally Gordon		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
Business Analyst2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00

Designer - Kapil Gulati		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer2 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.83**	**1.25**	**0.00**	**0.58**	**0.00**	**$46,875.00**	**$0.00**	**$21,750.00**	**$0.00**
SERVS Org	**$68,625**									
Project Manager - Jonathan Lord		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
Business Analyst3- To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - David Reeg		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer3 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.83**	**1.25**	**0.00**	**0.58**	**0.00**	**$46,875.00**	**$0.00**	**$21,750.00**	**$0.00**
Statewide Warehouse (SLEDS)	**$75,000**									
Project Manager - Jenifer Marier		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Todd Barkus		0.50	0.00	0.25	0.00	0.25	$0.00	$9,375.00	$0.00	$9,375.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.00	0.25	0.00	0.00	$0.00	$9,375.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**2.00**	**1.25**	**0.50**	**0.00**	**0.25**	**$46,875.00**	**$18,750.00**	**$0.00**	**$9,375.00**
Student Enhanced MDE Analytics - Educator Portal	**$0**									
Project Manager - Jenifer Marier		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Business Analyst3 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Student Enhanced MDE Analytics - P20 RPM	**$0**									
Project Manager - Craig Rhombs		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING
2nd Half Year '12/1/2010 - 5/31/2011'

	Grant	In-Kind	Total
1. PERSONNEL			
PM Oversight Activities	18,750	18,750	37,500
SERVS Base Infrastructure	168,750	0	168,750
SERVS Student	168,750	12,375	181,125
SERVS Staff	46,875	21,750	68,625
SERVS Org	93,750	21,750	115,500
Statewide Warehouse (SLEDS)	75,000	0	75,000
Student Enhanced MDE Analytics - Educator Portal	37,500	0	37,500
Student Enhanced MDE Analytics - P20 RPM	28,125	0	28,125
TOTAL	**637,500**	**74,625**	**712,125**
2. FRINGE BENEFITS			
PM Oversight Activities	6,188	6,188	12,375
SERVS Base Infrastructure	55,688	0	55,688
SERVS Student	55,688	4,084	59,771
SERVS Staff	15,469	7,178	22,646
SERVS Org	30,938	7,178	38,115
Statewide Warehouse (SLEDS)	24,750	0	24,750
Student Enhanced MDE Analytics - Educator Portal	12,375	0	12,375
Student Enhanced MDE Analytics - P20 RPM	9,281	0	9,281
TOTAL	**210,375**	**24,626**	**235,001**
3. TRAVEL			
PM Oversight Activities	3,000	0	3,000
SERVS Base Infrastructure	0	0	0
SERVS Student	1,500	0	1,500
SERVS Staff	1,500	0	1,500
SERVS Org	1,500	0	1,500
Statewide Warehouse (SLEDS)	1,500	0	1,500
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**9,000**	**0**	**9,000**
4. EQUIPMENT			
Hardware			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
Software			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL EQUIPMENT	**0**	**0**	**0**
5. SUPPLIES (desktops @ 1000)			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL SUPPLIES	**0**	**0**	**0**
6. CONTRACTUAL (Professional Services)			
PM Oversight Activities			
Contractors	0	0	0
Vendors	0	0	0
SERVS Base Infrastructure			
Contractors	0	0	0
Vendors (SIF Pilot)	100,000	0	100,000
SERVS Student			
Contractors	0	0	0
Vendors	0	0	0
SERVS Staff			
Contractors	0	0	0
Vendors	0	0	0
SERVS Org			
Contractors	0	0	0
Vendors	0	0	0
Statewide Warehouse (SLEDS)			
Contractors (OHE, DEED, OET)	0	0	0
Vendors (State Warehouse Creation)	100,000	0	100,000
Student Enhanced MDE Analytics - Educator Portal			
Contractors	0	0	0
Vendors (Analytic Reporting)	50,000	0	50,000
Student Enhanced MDE Analytics - P20 RPM			
Contractors (WCER)	25,000	0	25,000
Vendors (Analytic Reporting)	50,000	0	50,000
TOTAL	**325,000**	**0**	**325,000**
7. TOTAL DIRECT COSTS			

PM Oversight Activities	27,938	24,938	52,875
SERVS Base Infrastructure	324,438	0	324,438
SERVS Student	225,938	16,459	242,396
SERVS Staff	63,844	28,928	92,771
SERVS Org	126,188	28,928	155,115
Statewide Warehouse (SLEDS)	201,250	0	201,250
Student Enhanced MDE Analytics - Educator Portal	99,875	0	99,875
Student Enhanced MDE Analytics - P20 RPM	112,406	0	112,406
TOTAL	**1,181,875**	**99,251**	**1,281,126**

8. INDIRECT COSTS

PM Oversight Activities	5,504	4,913	10,416
SERVS Base Infrastructure	63,914	0	63,914
SERVS Student	44,510	3,242	47,752
SERVS Staff	12,577	5,699	18,276
SERVS Org	24,859	5,699	30,558
Statewide Warehouse (SLEDS)	39,646	0	39,646
Student Enhanced MDE Analytics - Educator Portal	19,675	0	19,675
Student Enhanced MDE Analytics - P20 RPM	22,144	0	22,144
TOTAL	**232,829**	**19,552**	**252,382**

9. TRAINING STIPENDS

PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**0**	**0**	**0**

10. TOTAL

PM Oversight Activities	**33,441**	**29,850**	63,291
SERVS Base Infrastructure	**388,352**	**0**	388,352
SERVS Student	**270,447**	**19,701**	290,148
SERVS Staff	**76,421**	**34,626**	111,047
SERVS Org	**151,046**	**34,626**	185,673
Statewide Warehouse (SLEDS)	**240,896**	**0**	240,896
Student Enhanced MDE Analytics - Educator Portal	**119,550**	**0**	119,550
Student Enhanced MDE Analytics - P20 RPM	**134,550**	**0**	134,550
TOTAL	**1,414,704**	**118,804**	1,533,508

		IDC Rate	Base Salary				Fringe Rate	Prof Svcs Rate		
		0.197	75,000.00				0.33	150,000.00		
	Total Project Budget	**Required PYs**	**Grant FTEs**	**Grant Prof Svcs**	**In-Kind State FTEs**	**In-Kind State Prof Svcs**	**Grant Personnel**	**Grant Prof Svcs**	**In-Kind State Personnel**	**In-Kind State Prof Svcs**
PM Oversight Activities	**$37,500**									
Director - Cathy Wagner		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
CIO - John Paulson		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
TOTALS		**1.00**	**0.50**	**0.00**	**0.50**	**0.00**	**$18,750.00**	**$0.00**	**$18,750.00**	**$0.00**
SERVS Base Infrastructure	**$168,750**									
SIF Facilities (Student Lookup Pilot)	$0									
Project Manager - Craig Rhombs		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
SIF Vendor Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Enrollment Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS SIF Facilities		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
EDM Facilities Changes	$159,375									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE IT EDM - David Reeg		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE SQL Deveoper1 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**4.25**	**4.25**	**0.00**	**0.00**	**0.00**	**$159,375.00**	**$0.00**	**$0.00**	**$0.00**
COTS network, server and software support	$9,375									
Network Engineer - Gerhard Kessel		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	$9,375.00	$0.00	$0.00	$0.00
TOTALS SERVS Base Infrastructure		**4.50**	**4.50**	**0.00**	**0.00**	**0.00**	**$168,750.00**	**$0.00**	**$0.00**	**$0.00**
SERVS Student	**$181,125**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer1 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
TOTALS		**4.83**	**4.50**	**0.00**	**0.33**	**0.00**	**$168,750.00**	**$0.00**	**$12,375.00**	**$0.00**
SERVS Staff	**$68,625**									
Project Manager - Sally Gordon		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00

Business Analyst2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Kapil Gulati		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer2 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.83**	**1.25**	**0.00**	**0.58**	**0.00**	**$46,875.00**	**$0.00**	**$21,750.00**	**$0.00**
SERVS Org	**$115,500**									
Project Manager - Jonathan Lord		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
Business Analyst3- To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - David Reeg		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer3 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**3.08**	**2.50**	**0.00**	**0.58**	**0.00**	**$93,750.00**	**$0.00**	**$21,750.00**	**$0.00**
Statewide Warehouse (SLEDS)	**$103,125**									
Project Manager - Jenifer Marier		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Todd Barkus		0.50	0.00	0.25	0.00	0.25	$0.00	$9,375.00	$0.00	$9,375.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.00	0.25	0.00	0.00	$0.00	$9,375.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**2.75**	**2.00**	**0.50**	**0.00**	**0.25**	**$75,000.00**	**$18,750.00**	**$0.00**	**$9,375.00**
Student Enhanced MDE Analytics - Educator Portal	**$37,500**									
Project Manager - Jenifer Marier		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst3 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**$37,500.00**	**$0.00**	**$0.00**	**$0.00**
Student Enhanced MDE Analytics - P20 RPM	**$28,125**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.75**	**0.75**	**0.00**	**0.00**	**0.00**	**$28,125.00**	**$0.00**	**$0.00**	**$0.00**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING
2nd Half Year '12/1/2010 - 5/31/2011'

	Grant	In-Kind	Total
1. PERSONNEL			
PM Oversight Activities	18,750	18,750	37,500
SERVS Base Infrastructure	148,125	9,375	157,500
SERVS Student	215,625	12,375	228,000
SERVS Staff	150,000	31,125	181,125
SERVS Org	168,750	21,750	190,500
Statewide Warehouse (SLEDS)	75,000	0	75,000
Student Enhanced MDE Analytics - Educator Portal	37,500	0	37,500
Student Enhanced MDE Analytics - P20 RPM	28,125	0	28,125
TOTAL	**841,875**	**93,375**	**935,250**
2. FRINGE BENEFITS			
PM Oversight Activities	6,188	6,188	12,375
SERVS Base Infrastructure	48,881	3,094	51,975
SERVS Student	71,156	4,084	75,240
SERVS Staff	49,500	10,271	59,771
SERVS Org	55,688	7,178	62,865
Statewide Warehouse (SLEDS)	24,750	0	24,750
Student Enhanced MDE Analytics - Educator Portal	12,375	0	12,375
Student Enhanced MDE Analytics - P20 RPM	9,281	0	9,281
TOTAL	**277,819**	**30,814**	**308,633**
3. TRAVEL			
PM Oversight Activities	3,000	0	3,000
SERVS Base Infrastructure	0	0	0
SERVS Student	1,500	0	1,500
SERVS Staff	1,500	0	1,500
SERVS Org	1,500	0	1,500
Statewide Warehouse (SLEDS)	1,500	0	1,500
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**9,000**	**0**	**9,000**
4. EQUIPMENT			
Hardware			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure (SIF ZISs)	450,000	0	450,000
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	100,000	0	100,000
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
Software			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure (SIF adapters)	300,000	0	300,000
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	200,000	0	200,000
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL EQUIPMENT	**1,050,000**	**0**	**1,050,000**
5. SUPPLIES (desktops @ 1000)			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL SUPPLIES	**0**	**0**	**0**
6. CONTRACTUAL (Professional Services)			
PM Oversight Activities			
Contractors	0	0	0
Vendors	0	0	0
SERVS Base Infrastructure			
Contractors	0	0	0
Vendors (SIF Pilot)	100,000	0	100,000
SERVS Student			
Contractors	0	0	0
Vendors	0	0	0
SERVS Staff			
Contractors	0	0	0
Vendors	0	0	0
SERVS Org			
Contractors	0	0	0
Vendors	0	0	0
Statewide Warehouse (SLEDS)			
Contractors (OHE, DEED, OET)	0	0	0
Vendors (State Warehouse Creation)	200,000	0	200,000
Student Enhanced MDE Analytics - Educator Portal			
Contractors	100,000	0	100,000
Vendors (Analytic Reporting)	200,000	0	200,000
Student Enhanced MDE Analytics - P20 RPM			
Contractors (WCER)	25,000	0	25,000
Vendors (Analytic Reporting)	250,000	0	200,000
TOTAL	**875,000**	**0**	**875,000**
7. TOTAL DIRECT COSTS			

PM Oversight Activities	27,938	24,938	52,875
SERVS Base Infrastructure	1,047,006	12,469	1,059,475
SERVS Student	288,281	16,459	304,740
SERVS Staff	201,000	41,396	242,396
SERVS Org	225,938	28,928	254,865
Statewide Warehouse (SLEDS)	601,250	0	601,250
Student Enhanced MDE Analytics - Educator Portal	349,875	0	349,875
Student Enhanced MDE Analytics - P20 RPM	312,406	0	312,406
TOTAL	**3,053,694**	**124,189**	**3,177,883**

8. INDIRECT COSTS

PM Oversight Activities	5,504	4,913	10,416
SERVS Base Infrastructure	206,260	2,456	208,717
SERVS Student	56,791	3,242	60,034
SERVS Staff	39,597	8,155	47,752
SERVS Org	44,510	5,699	50,208
Statewide Warehouse (SLEDS)	118,446	0	118,446
Student Enhanced MDE Analytics - Educator Portal	68,925	0	68,925
Student Enhanced MDE Analytics - P20 RPM	61,544	0	61,544
TOTAL	**601,578**	**24,465**	**626,043**

9. TRAINING STIPENDS

PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**0**	**0**	**0**

10. TOTAL

PM Oversight Activities	**33,441**	**29,850**	63,291
SERVS Base Infrastructure	**1,253,266**	**14,925**	1,268,192
SERVS Student	**345,073**	**19,701**	364,774
SERVS Staff	**240,597**	**49,551**	290,148
SERVS Org	**270,447**	**34,626**	305,073
Statewide Warehouse (SLEDS)	**719,696**	**0**	719,696
Student Enhanced MDE Analytics - Educator Portal	**418,800**	**0**	418,800
Student Enhanced MDE Analytics - P20 RPM	**373,950**	**0**	373,950
TOTAL	**3,655,271**	**148,654**	3,803,925

		IDC Rate 0.197	Base Salary 75,000.00				Fringe Rate 0.33	Prof Svcs Rate 150,000.00		
	Total Project Budget	**Required PYs**	**Grant FTEs**	**Grant Prof Svcs**	**In-Kind State FTEs**	**In-Kind State Prof Svcs**	**Grant Personnel**	**Grant Prof Svcs**	**In-Kind State Personnel**	**In-Kind State Prof Svcs**
PM Oversight Activities	**$37,500**									
Director - Cathy Wagner		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
CIO - John Paulson		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
TOTALS		**1.00**	**0.50**	**0.00**	**0.50**	**0.00**	**$18,750.00**	**$0.00**	**$18,750.00**	**$0.00**
SERVS Base Infrastructure	**$195,000**									
SIF Facilities (Student Lookup Pilot)	$131,250									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT Subject Matter Expert		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
SIF Vendor Subject Matter Expert		1.00	0.00	1.00	0.00	0.00	$0.00	$37,500.00	$0.00	$0.00
MDE Enrollment Subject Matter Expert		0.25	0.00	0.00	0.25	0.00	$0.00	$0.00	$9,375.00	$0.00
MDE Trainer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Technical Writer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS SIF Facilities		**3.50**	**2.25**	**1.00**	**0.25**	**0.00**	**$84,375.00**	**$37,500.00**	**$9,375.00**	**$0.00**
EDM Facilities Changes	$54,375									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT EDM - David Reeg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE SQL Deveoper1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**1.45**	**1.45**	**0.00**	**0.00**	**0.00**	**$54,375.00**	**$0.00**	**$0.00**	**$0.00**
COTS network, server and software support	$9,375									
Network Engineer - Gerhard Kessel		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	$9,375.00	$0.00	$0.00	$0.00
TOTALS SERVS Base Infrastructure		**5.20**	**3.95**	**1.00**	**0.25**	**0.00**	**$148,125.00**	**$37,500.00**	**$9,375.00**	**$0.00**
SERVS Student	**$228,000**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer1 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Report Writer		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
TOTALS		**6.08**	**5.75**	**0.00**	**0.33**	**0.00**	**$215,625.00**	**$0.00**	**$12,375.00**	**$0.00**
SERVS Staff	**$181,125**									
Project Manager - Sally Gordon		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00

Business Analyst2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Kapil Gulati		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**4.83**	**4.00**	**0.00**	**0.83**	**0.00**	**$150,000.00**	**$0.00**	**$31,125.00**	**$0.00**
SERVS Org	**$190,500**									
Project Manager - Jonathan Lord		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
Business Analyst3- To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - David Reeg		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer3 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**5.08**	**4.50**	**0.00**	**0.58**	**0.00**	**$168,750.00**	**$0.00**	**$21,750.00**	**$0.00**
Statewide Warehouse (SLEDS)	**$103,125**									
Project Manager - Jenifer Marier		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Todd Barkus		0.50	0.00	0.25	0.00	0.25	$0.00	$9,375.00	$0.00	$9,375.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.00	0.25	0.00	0.00	$0.00	$9,375.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**2.75**	**2.00**	**0.50**	**0.00**	**0.25**	**$75,000.00**	**$18,750.00**	**$0.00**	**$9,375.00**
Student Enhanced MDE Analytics - Educator Portal	**$37,500**									
Project Manager - Jenifer Marier		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst3 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**$37,500.00**	**$0.00**	**$0.00**	**$0.00**
Student Enhanced MDE Analytics - P20 RPM	**$28,125**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.75**	**0.75**	**0.00**	**0.00**	**0.00**	**$28,125.00**	**$0.00**	**$0.00**	**$0.00**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING
2nd Half Year '12/1/2010 - 5/31/2011'

	Grant	In-Kind	Total
1. PERSONNEL			
PM Oversight Activities	18,750	18,750	37,500
SERVS Base Infrastructure	129,375	9,375	138,750
SERVS Student	215,625	12,375	228,000
SERVS Staff	150,000	31,125	181,125
SERVS Org	168,750	21,750	190,500
Statewide Warehouse (SLEDS)	75,000	0	75,000
Student Enhanced MDE Analytics - Educator Portal	37,500	0	37,500
Student Enhanced MDE Analytics - P20 RPM	28,125	0	28,125
TOTAL	**823,125**	**93,375**	**916,500**
2. FRINGE BENEFITS			
PM Oversight Activities	6,188	6,188	12,375
SERVS Base Infrastructure	42,694	3,094	45,788
SERVS Student	71,156	4,084	75,240
SERVS Staff	49,500	10,271	59,771
SERVS Org	55,688	7,178	62,865
Statewide Warehouse (SLEDS)	24,750	0	24,750
Student Enhanced MDE Analytics - Educator Portal	12,375	0	12,375
Student Enhanced MDE Analytics - P20 RPM	9,281	0	9,281
TOTAL	**271,631**	**30,814**	**302,445**
3. TRAVEL			
PM Oversight Activities	3,000	0	3,000
SERVS Base Infrastructure	0	0	0
SERVS Student	1,500	0	1,500
SERVS Staff	1,500	0	1,500
SERVS Org	1,500	0	1,500
Statewide Warehouse (SLEDS)	1,500	0	1,500
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**9,000**	**0**	**9,000**
4. EQUIPMENT			
Hardware			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
Software			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL EQUIPMENT	**0**	**0**	**0**
5. SUPPLIES (desktops @ 1000)			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL SUPPLIES	**0**	**0**	**0**
6. CONTRACTUAL (Professional Services)			
PM Oversight Activities			
Contractors	0	0	0
Vendors	0	0	0
SERVS Base Infrastructure			
Contractors	0	0	0
Vendors (SIF Pilot)	200,000	0	200,000
SERVS Student			
Contractors	0	0	0
Vendors	0	0	0
SERVS Staff			
Contractors	0	0	0
Vendors	0	0	0
SERVS Org			
Contractors	0	0	0
Vendors	0	0	0
Statewide Warehouse (SLEDS)			
Contractors (OHE, DEED, OET)	0	0	0
Vendors (State Warehouse Creation)	200,000	0	200,000
Student Enhanced MDE Analytics - Educator Portal			
Contractors	100,000	0	100,000
Vendors (Analytic Reporting)	200,000	0	200,000
Student Enhanced MDE Analytics - P20 RPM			
Contractors (WCER)	25,000	0	25,000
Vendors (Analytic Reporting)	100,000	0	200,000
TOTAL	**825,000**	**0**	**825,000**
7. TOTAL DIRECT COSTS			

PM Oversight Activities	27,938	24,938	52,875
SERVS Base Infrastructure	372,069	12,469	384,538
SERVS Student	288,281	16,459	304,740
SERVS Staff	201,000	41,396	242,396
SERVS Org	225,938	28,928	254,865
Statewide Warehouse (SLEDS)	301,250	0	301,250
Student Enhanced MDE Analytics - Educator Portal	349,875	0	349,875
Student Enhanced MDE Analytics - P20 RPM	162,406	0	162,406
TOTAL	**1,928,756**	**124,189**	**2,052,945**

8. INDIRECT COSTS

PM Oversight Activities	5,504	4,913	10,416
SERVS Base Infrastructure	73,298	2,456	75,754
SERVS Student	56,791	3,242	60,034
SERVS Staff	39,597	8,155	47,752
SERVS Org	44,510	5,699	50,208
Statewide Warehouse (SLEDS)	59,346	0	59,346
Student Enhanced MDE Analytics - Educator Portal	68,925	0	68,925
Student Enhanced MDE Analytics - P20 RPM	31,994	0	31,994
TOTAL	**379,965**	**24,465**	**404,430**

9. TRAINING STIPENDS

PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**0**	**0**	**0**

10. TOTAL

PM Oversight Activities	**33,441**	**29,850**	63,291
SERVS Base Infrastructure	**445,366**	**14,925**	460,291
SERVS Student	**345,073**	**19,701**	364,774
SERVS Staff	**240,597**	**49,551**	290,148
SERVS Org	**270,447**	**34,626**	305,073
Statewide Warehouse (SLEDS)	**360,596**	**0**	360,596
Student Enhanced MDE Analytics - Educator Portal	**418,800**	**0**	418,800
Student Enhanced MDE Analytics - P20 RPM	**194,400**	**0**	194,400
TOTAL	**2,308,721**	**148,654**	2,457,375

		IDC Rate	Base Salary				Fringe Rate	Prof Svcs Rate		
		0.197	75,000.00				0.33	150,000.00		
	Total Project Budget	**Required PYs**	**Grant FTEs**	**Grant Prof Svcs**	**In-Kind State FTEs**	**In-Kind State Prof Svcs**	**Grant Personnel**	**Grant Prof Svcs**	**In-Kind State Personnel**	**In-Kind State Prof Svcs**
PM Oversight Activities	**$37,500**									
Director - Cathy Wagner		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
CIO - John Paulson		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
TOTALS		**1.00**	**0.50**	**0.00**	**0.50**	**0.00**	**$18,750.00**	**$0.00**	**$18,750.00**	**$0.00**
SERVS Base Infrastructure	**$176,250**									
SIF Facilities (Student Lookup Pilot)	$131,250									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT Subject Matter Expert		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
SIF Vendor Subject Matter Expert		1.00	0.00	1.00	0.00	0.00	$0.00	$37,500.00	$0.00	$0.00
MDE Enrollment Subject Matter Expert		0.25	0.00	0.00	0.25	0.00	$0.00	$0.00	$9,375.00	$0.00
MDE Trainer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Technical Writer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS SIF Facilities		**3.50**	**2.25**	**1.00**	**0.25**	**0.00**	**$84,375.00**	**$37,500.00**	**$9,375.00**	**$0.00**
EDM Facilities Changes	$35,625									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT EDM - David Reeg		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE SQL Deveoper1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.95**	**0.95**	**0.00**	**0.00**	**0.00**	**$35,625.00**	**$0.00**	**$0.00**	**$0.00**
COTS network, server and software support	$9,375									
Network Engineer - Gerhard Kessel		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	$9,375.00	$0.00	$0.00	$0.00
TOTALS SERVS Base Infrastructure		**4.70**	**3.45**	**1.00**	**0.25**	**0.00**	**$129,375.00**	**$37,500.00**	**$9,375.00**	**$0.00**
SERVS Student	**$228,000**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer1 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Report Writer		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
TOTALS		**6.08**	**5.75**	**0.00**	**0.33**	**0.00**	**$215,625.00**	**$0.00**	**$12,375.00**	**$0.00**
SERVS Staff	**$181,125**									
Project Manager - Sally Gordon		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00

Business Analyst2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Kapil Gulati		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**4.83**	**4.00**	**0.00**	**0.83**	**0.00**	**$150,000.00**	**$0.00**	**$31,125.00**	**$0.00**
SERVS Org	**$190,500**									
Project Manager - Jonathan Lord		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
Business Analyst3- To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - David Reeg		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer3 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**5.08**	**4.50**	**0.00**	**0.58**	**0.00**	**$168,750.00**	**$0.00**	**$21,750.00**	**$0.00**
Statewide Warehouse (SLEDS)	**$103,125**									
Project Manager - Jenifer Marier		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Todd Barkus		0.50	0.00	0.25	0.00	0.25	$0.00	$9,375.00	$0.00	$9,375.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.00	0.25	0.00	0.00	$0.00	$9,375.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**2.75**	**2.00**	**0.50**	**0.00**	**0.25**	**$75,000.00**	**$18,750.00**	**$0.00**	**$9,375.00**
Student Enhanced MDE Analytics - Educator Portal	**$37,500**									
Project Manager - Jenifer Marier		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst3 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**$37,500.00**	**$0.00**	**$0.00**	**$0.00**
Student Enhanced MDE Analytics - P20 RPM	**$28,125**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Java Developer4 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.75**	**0.75**	**0.00**	**0.00**	**0.00**	**$28,125.00**	**$0.00**	**$0.00**	**$0.00**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING
2nd Half Year '12/1/2010 - 5/31/2011'

	Grant	In-Kind	Total
1. PERSONNEL			
PM Oversight Activities	18,750	18,750	37,500
SERVS Base Infrastructure	133,125	9,375	142,500
SERVS Student	88,125	12,375	100,500
SERVS Staff	196,875	31,125	228,000
SERVS Org	82,500	21,750	104,250
Statewide Warehouse (SLEDS)	112,500	0	112,500
Student Enhanced MDE Analytics - Educator Portal	178,125	12,375	190,500
Student Enhanced MDE Analytics - P20 RPM	206,250	12,375	218,625
TOTAL	**1,016,250**	**118,125**	**1,134,375**
2. FRINGE BENEFITS			
PM Oversight Activities	6,188	6,188	12,375
SERVS Base Infrastructure	43,931	3,094	47,025
SERVS Student	29,081	4,084	33,165
SERVS Staff	64,969	10,271	75,240
SERVS Org	27,225	7,178	34,403
Statewide Warehouse (SLEDS)	37,125	0	37,125
Student Enhanced MDE Analytics - Educator Portal	58,781	4,084	62,865
Student Enhanced MDE Analytics - P20 RPM	68,063	4,084	72,146
TOTAL	**335,363**	**38,981**	**374,344**
3. TRAVEL			
PM Oversight Activities	3,000	0	3,000
SERVS Base Infrastructure	0	0	0
SERVS Student	1,500	0	1,500
SERVS Staff	1,500	0	1,500
SERVS Org	1,500	0	1,500
Statewide Warehouse (SLEDS)	1,500	0	1,500
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**9,000**	**0**	**9,000**
4. EQUIPMENT			
Hardware			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
Software			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL EQUIPMENT	**0**	**0**	**0**
5. SUPPLIES (desktops @ 1000)			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL SUPPLIES	**0**	**0**	**0**
6. CONTRACTUAL (Professional Services)			
PM Oversight Activities			
Contractors	0	0	0
Vendors	0	0	0
SERVS Base Infrastructure			
Contractors	0	0	0
Vendors (SIF Pilot)	200,000	0	200,000
SERVS Student			
Contractors	0	0	0
Vendors	0	0	0
SERVS Staff			
Contractors	0	0	0
Vendors	0	0	0
SERVS Org			
Contractors	0	0	0
Vendors	0	0	0
Statewide Warehouse (SLEDS)			
Contractors (OHE, DEED, OET)	0	0	0
Vendors (State Warehouse Creation)	200,000	0	200,000
Student Enhanced MDE Analytics - Educator Portal			
Contractors	100,000	0	100,000
Vendors (Analytic Reporting)	200,000	0	200,000
Student Enhanced MDE Analytics - P20 RPM			
Contractors (WCER)	25,000	0	25,000
Vendors (Analytic Reporting)	200,000	0	200,000
TOTAL	**925,000**	**0**	**925,000**
7. TOTAL DIRECT COSTS			

PM Oversight Activities	27,938	24,938	52,875
SERVS Base Infrastructure	377,056	12,469	389,525
SERVS Student	118,706	16,459	135,165
SERVS Staff	263,344	41,396	304,740
SERVS Org	111,225	28,928	140,153
Statewide Warehouse (SLEDS)	351,125	0	351,125
Student Enhanced MDE Analytics - Educator Portal	536,906	16,459	553,365
Student Enhanced MDE Analytics - P20 RPM	499,313	16,459	515,771
TOTAL	**2,285,613**	**157,106**	**2,442,719**

8. INDIRECT COSTS

PM Oversight Activities	5,504	4,913	10,416
SERVS Base Infrastructure	74,280	2,456	76,736
SERVS Student	23,385	3,242	26,628
SERVS Staff	51,879	8,155	60,034
SERVS Org	21,911	5,699	27,610
Statewide Warehouse (SLEDS)	69,172	0	69,172
Student Enhanced MDE Analytics - Educator Portal	105,771	3,242	109,013
Student Enhanced MDE Analytics - P20 RPM	98,365	3,242	101,607
TOTAL	**450,266**	**30,950**	**481,216**

9. TRAINING STIPENDS

PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**0**	**0**	**0**

10. TOTAL

PM Oversight Activities	**33,441**	**29,850**	63,291
SERVS Base Infrastructure	**451,336**	**14,925**	466,261
SERVS Student	**142,091**	**19,701**	161,793
SERVS Staff	**315,222**	**49,551**	364,774
SERVS Org	**133,136**	**34,626**	167,763
Statewide Warehouse (SLEDS)	**420,297**	**0**	420,297
Student Enhanced MDE Analytics - Educator Portal	**642,677**	**19,701**	662,378
Student Enhanced MDE Analytics - P20 RPM	**597,677**	**19,701**	617,378
TOTAL	**2,735,878**	**188,056**	2,923,934

		IDC Rate	Base Salary				Fringe Rate	Prof Svcs Rate		
		0.197	75,000.00				0.33	150,000.00		
	Total Project Budget	**Required PYs**	**Grant FTEs**	**Grant Prof Svcs**	**In-Kind State FTEs**	**In-Kind State Prof Svcs**	**Grant Personnel**	**Grant Prof Svcs**	**In-Kind State Personnel**	**In-Kind State Prof Svcs**
PM Oversight Activities	**$37,500**									
Director - Cathy Wagner		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
CIO - John Paulson		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
TOTALS		**1.00**	**0.50**	**0.00**	**0.50**	**0.00**	**$18,750.00**	**$0.00**	**$18,750.00**	**$0.00**
SERVS Base Infrastructure	**$180,000**									
SIF Facilities (Student Lookup Pilot)	$135,000									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT Subject Matter Expert		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
SIF Vendor Subject Matter Expert		1.00	0.00	1.00	0.00	0.00	$0.00	$37,500.00	$0.00	$0.00
MDE Enrollment Subject Matter Expert		0.25	0.00	0.00	0.25	0.00	$0.00	$0.00	$9,375.00	$0.00
MDE Trainer		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Technical Writer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS SIF Facilities		**3.60**	**2.35**	**1.00**	**0.25**	**0.00**	**$88,125.00**	**$37,500.00**	**$9,375.00**	**$0.00**
EDM Facilities Changes	$35,625									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT EDM - David Reeg		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE SQL Deveoper1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.95**	**0.95**	**0.00**	**0.00**	**0.00**	**$35,625.00**	**$0.00**	**$0.00**	**$0.00**
COTS network, server and software support	$9,375									
Network Engineer - Gerhard Kessel		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	$9,375.00	$0.00	$0.00	$0.00
TOTALS SERVS Base Infrastructure		**4.80**	**3.55**	**1.00**	**0.25**	**0.00**	**$133,125.00**	**$37,500.00**	**$9,375.00**	**$0.00**
SERVS Student	**$100,500**									
Project Manager - Craig Rhombs		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer1 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE Report Writer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS		**2.68**	**2.35**	**0.00**	**0.33**	**0.00**	**$88,125.00**	**$0.00**	**$12,375.00**	**$0.00**
SERVS Staff	**$228,000**									
Project Manager - Sally Gordon		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00

Business Analyst2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Kapil Gulati		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer2 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.75	0.50	0.00	0.25	0.00	$18,750.00	$0.00	$9,375.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**6.08**	**5.25**	**0.00**	**0.83**	**0.00**	**$196,875.00**	**$0.00**	**$31,125.00**	**$0.00**
SERVS Org	**$104,250**									
Project Manager - Jonathan Lord		0.35	0.10	0.00	0.25	0.00	$3,750.00	$0.00	$9,375.00	$0.00
Business Analyst3- To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - David Reeg		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer3 - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Trainer		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
TOTALS		**2.78**	**2.20**	**0.00**	**0.58**	**0.00**	**$82,500.00**	**$0.00**	**$21,750.00**	**$0.00**
Statewide Warehouse (SLEDS)	**$168,750**									
Project Manager - Jenifer Marier		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Todd Barkus		1.00	0.00	0.50	0.00	0.50	$0.00	$18,750.00	$0.00	$18,750.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		1.00	0.50	0.50	0.00	0.00	$18,750.00	$18,750.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**4.50**	**3.00**	**1.00**	**0.00**	**0.50**	**$112,500.00**	**$37,500.00**	**$0.00**	**$18,750.00**
Student Enhanced MDE Analytics - Educator Portal	**$190,500**									
Project Manager - Jenifer Marier		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst3 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Subject Matter Experts		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**5.08**	**4.75**	**0.00**	**0.33**	**0.00**	**$178,125.00**	**$0.00**	**$12,375.00**	**$0.00**
Student Enhanced MDE Analytics - P20 RPM	**$218,625**									
Project Manager - Craig Rhombs		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Subject Matter Experts		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Report Writer		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**5.83**	**5.50**	**0.00**	**0.33**	**0.00**	**$206,250.00**	**$0.00**	**$12,375.00**	**$0.00**

Minnesota Department of Education
DATA SYSTEMS FOR 21st CENTURY LEARNING
2nd Half Year '12/1/2010 - 5/31/2011'

	Grant	In-Kind	Total
1. PERSONNEL			
PM Oversight Activities	18,750	18,750	37,500
SERVS Base Infrastructure	18,750	0	18,750
SERVS Student	7,500	12,375	19,875
SERVS Staff	50,625	49,875	100,500
SERVS Org	15,000	21,750	36,750
Statewide Warehouse (SLEDS)	112,500	0	112,500
Student Enhanced MDE Analytics - Educator Portal	178,125	12,375	190,500
Student Enhanced MDE Analytics - P20 RPM	206,250	12,375	218,625
TOTAL	**607,500**	**127,500**	**735,000**
2. FRINGE BENEFITS			
PM Oversight Activities	6,188	6,188	12,375
SERVS Base Infrastructure	6,188	0	6,188
SERVS Student	2,475	4,084	6,559
SERVS Staff	16,706	16,459	33,165
SERVS Org	4,950	7,178	12,128
Statewide Warehouse (SLEDS)	37,125	0	37,125
Student Enhanced MDE Analytics - Educator Portal	58,781	4,084	62,865
Student Enhanced MDE Analytics - P20 RPM	68,063	4,084	72,146
TOTAL	**200,475**	**42,075**	**242,550**
3. TRAVEL			
PM Oversight Activities	3,000	0	3,000
SERVS Base Infrastructure	0	0	0
SERVS Student	1,500	0	1,500
SERVS Staff	1,500	0	1,500
SERVS Org	1,500	0	1,500
Statewide Warehouse (SLEDS)	1,500	0	1,500
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**9,000**	**0**	**9,000**
4. EQUIPMENT			
Hardware			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
Software			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL EQUIPMENT	**0**	**0**	**0**
5. SUPPLIES (desktops @ 1000)			
PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL SUPPLIES	**0**	**0**	**0**
6. CONTRACTUAL (Professional Services)			
PM Oversight Activities			
Contractors	0	0	0
Vendors	0	0	0
SERVS Base Infrastructure			
Contractors	0	0	0
Vendors (SIF Pilot)	100,000	0	100,000
SERVS Student			
Contractors	0	0	0
Vendors	0	0	0
SERVS Staff			
Contractors	0	0	0
Vendors	0	0	0
SERVS Org			
Contractors	0	0	0
Vendors	0	0	0
Statewide Warehouse (SLEDS)			
Contractors (OHE, DEED, OET)	100,000	0	100,000
Vendors (State Warehouse Creation)	100,000	0	100,000
Student Enhanced MDE Analytics - Educator Portal			
Contractors	0	0	0
Vendors (Analytic Reporting)	100,000	0	200,000
Student Enhanced MDE Analytics - P20 RPM			
Contractors (WCER)	25,000	0	25,000
Vendors (Analytic Reporting)	100,000	0	200,000
TOTAL	**525,000**	**0**	**525,000**
7. TOTAL DIRECT COSTS			

PM Oversight Activities	27,938	24,938	52,875
SERVS Base Infrastructure	124,938	0	124,938
SERVS Student	11,475	16,459	27,934
SERVS Staff	68,831	66,334	135,165
SERVS Org	21,450	28,928	50,378
Statewide Warehouse (SLEDS)	351,125	0	351,125
Student Enhanced MDE Analytics - Educator Portal	336,906	16,459	353,365
Student Enhanced MDE Analytics - P20 RPM	399,313	16,459	415,771
TOTAL	**1,341,975**	**169,575**	**1,511,550**

8. INDIRECT COSTS

PM Oversight Activities	5,504	4,913	10,416
SERVS Base Infrastructure	24,613	0	24,613
SERVS Student	2,261	3,242	5,503
SERVS Staff	13,560	13,068	26,628
SERVS Org	4,226	5,699	9,924
Statewide Warehouse (SLEDS)	69,172	0	69,172
Student Enhanced MDE Analytics - Educator Portal	66,371	3,242	69,613
Student Enhanced MDE Analytics - P20 RPM	78,665	3,242	81,907
TOTAL	**264,369**	**33,406**	**297,775**

9. TRAINING STIPENDS

PM Oversight Activities	0	0	0
SERVS Base Infrastructure	0	0	0
SERVS Student	0	0	0
SERVS Staff	0	0	0
SERVS Org	0	0	0
Statewide Warehouse (SLEDS)	0	0	0
Student Enhanced MDE Analytics - Educator Portal	0	0	0
Student Enhanced MDE Analytics - P20 RPM	0	0	0
TOTAL	**0**	**0**	**0**

10. TOTAL

PM Oversight Activities	**33,441**	**29,850**	63,291
SERVS Base Infrastructure	**149,550**	**0**	149,550
SERVS Student	**13,736**	**19,701**	33,437
SERVS Staff	**82,391**	**79,401**	161,793
SERVS Org	**25,676**	**34,626**	60,302
Statewide Warehouse (SLEDS)	**420,297**	**0**	420,297
Student Enhanced MDE Analytics - Educator Portal	**403,277**	**19,701**	422,978
Student Enhanced MDE Analytics - P20 RPM	**477,977**	**19,701**	497,678
TOTAL	**1,606,344**	**202,981**	1,809,325

		IDC Rate	Base Salary				Fringe Rate	Prof Svcs Rate		
		0.197	75,000.00				0.33	150,000.00		
	Total Project Budget	**Required PYs**	**Grant FTEs**	**Grant Prof Svcs**	**In-Kind State FTEs**	**In-Kind State Prof Svcs**	**Grant Personnel**	**Grant Prof Svcs**	**In-Kind State Personnel**	**In-Kind State Prof Svcs**
PM Oversight Activities	**$37,500**									
Director - Cathy Wagner		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
CIO - John Paulson		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00
TOTALS		**1.00**	**0.50**	**0.00**	**0.50**	**0.00**	**$18,750.00**	**$0.00**	**$18,750.00**	**$0.00**
SERVS Base Infrastructure	**$18,750**									
SIF Facilities (Student Lookup Pilot)	$7,500									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE IT Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
SIF Vendor Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Enrollment Subject Matter Expert		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS SIF Facilities		**0.20**	**0.20**	**0.00**	**0.00**	**0.00**	**$7,500.00**	**$0.00**	**$0.00**	**$0.00**
EDM Facilities Changes	$7,500									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE IT EDM - David Reeg		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE SQL Deveoper1 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.20**	**0.20**	**0.00**	**0.00**	**0.00**	**$7,500.00**	**$0.00**	**$0.00**	**$0.00**
COTS network, server and software support	$3,750									
Network Engineer - Gerhard Kessel		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
TOTALS EDM Facilities		**0.10**	**0.10**	**0.00**	**0.00**	**0.00**	$3,750.00	$0.00	$0.00	$0.00
TOTALS SERVS Base Infrastructure		**0.50**	**0.50**	**0.00**	**0.00**	**0.00**	**$18,750.00**	**$0.00**	**$0.00**	**$0.00**
SERVS Student	**$19,875**									
Project Manager - Craig Rhombs		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Business Analyst1 - To Be Hired		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer1 - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.53**	**0.20**	**0.00**	**0.33**	**0.00**	**$7,500.00**	**$0.00**	**$12,375.00**	**$0.00**
SERVS Staff	**$100,500**									
Project Manager - Sally Gordon		0.50	0.25	0.00	0.25	0.00	$9,375.00	$0.00	$9,375.00	$0.00

Business Analyst2 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Kapil Gulati		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer2 - To Be Hired		1.00	0.50	0.00	0.50	0.00	$18,750.00	$0.00	$18,750.00	$0.00
Subject Matter Experts		0.25	0.00	0.00	0.25	0.00	$0.00	$0.00	$9,375.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
TOTALS		**2.68**	**1.35**	**0.00**	**1.33**	**0.00**	**$50,625.00**	**$0.00**	**$49,875.00**	**$0.00**
SERVS Org	**$36,750**									
Project Manager - Jonathan Lord		0.35	0.10	0.00	0.25	0.00	$3,750.00	$0.00	$9,375.00	$0.00
Business Analyst3- To Be Hired		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Designer - David Reeg		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer3 - To Be Hired		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
Subject Matter Experts		0.10	0.10	0.00	0.00	0.00	$3,750.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE Trainer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
TOTALS		**0.98**	**0.40**	**0.00**	**0.58**	**0.00**	**$15,000.00**	**$0.00**	**$21,750.00**	**$0.00**
Statewide Warehouse (SLEDS)	**$168,750**									
Project Manager - Jenifer Marier		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Designer - Todd Barkus		1.00	0.00	0.50	0.00	0.50	$0.00	$18,750.00	$0.00	$18,750.00
Subject Matter Experts		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Terry Sorg		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.00	0.00	0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		1.00	0.50	0.50	0.00	0.00	$18,750.00	$18,750.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**4.50**	**3.00**	**1.00**	**0.00**	**0.50**	**$112,500.00**	**$37,500.00**	**$0.00**	**$18,750.00**
Student Enhanced MDE Analytics - Educator Portal	**$190,500**									
Project Manager - Jenifer Marier		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst3 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Subject Matter Experts		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.25	0.25	0.00	0.00	0.00	$9,375.00	$0.00	$0.00	$0.00
MDE Report Writer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**5.08**	**4.75**	**0.00**	**0.33**	**0.00**	**$178,125.00**	**$0.00**	**$12,375.00**	**$0.00**
Student Enhanced MDE Analytics - P20 RPM	**$218,625**									
Project Manager - Craig Rhombs		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Business Analyst4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Designer - Joe Schemenaurer		0.33	0.00	0.00	0.33	0.00	$0.00	$0.00	$12,375.00	$0.00
Java Developer4 - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
Subject Matter Experts		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
MDE IT SQL DBA - Monte Grosso		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Report Writer		1.00	1.00	0.00	0.00	0.00	$37,500.00	$0.00	$0.00	$0.00
Technical Writer - To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE Trainer		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
MDE QA To Be Hired		0.50	0.50	0.00	0.00	0.00	$18,750.00	$0.00	$0.00	$0.00
TOTALS		**5.83**	**5.50**	**0.00**	**0.33**	**0.00**	**$206,250.00**	**$0.00**	**$12,375.00**	**$0.00**