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 # R384A100026

Closing Date: NOV 19, 2009

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

OMB No.4040-0004 Exp.01/31/2012

Application for Federal Assistance SF-424		Version 02
* 1. Type of Submission [ ] Preapplication [X] Application [ ] Changed/Corrected Application	* 2. Type of Application: [X] New [ ] Continuation [ ] Revision	* If Revision, select appropriate letter(s): * Other (Specify)
* 3. Date Received: 12/3/2009	4. Applicant Identifier:	
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: Montana Office of Public Instruction		
* b. Employer/Taxpayer Identification Number (EIN/TIN): 810302402	* c. Organizational DUNS: 809588700	
d. Address:		
* Street1: Street2: * City: County: State: Province: * Country: * Zip / Postal Code:	1227 11th Avenue Helena Lewis & Clark MT USA 59620	
e. Organizational Unit:		
Department Name: Montana Office of Public Instruction	Division Name: Office of the State Superintendent	
f. Name and contact information of person to be contacted on matters involving this application:		
Prefix: Ms. Middle Name: J	* First Name: Madalyn	

* Last Name:	Quinlan		
Suffix:			
Title:	Chief of Staff		
Organizational Affiliation: Montana Office of Public Instruction			
* Telephone Number:	(406)444-3168	Fax Number:	(406)444-2893
* Email:	MQUINLAN@MT.GOV		

Application for Federal Assistance SF-424 Version 02

9. Type of Applicant 1: Select Applicant Type:

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

10. Name of Federal Agency:

U.S. Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.384A

CFDA Title:

Statewide Longitudinal Data System Recovery Act Grants

*** 12. Funding Opportunity Number:**

ED-GRANTS-072909-001

Title:

Statewide Longitudinal Data System Recovery Act Grants

13. Competition Identification Number:

384A2009-1

Title:

Statewide Longitudinal Data System Recovery Act Grants

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

State of Montana

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

Montana P-20 Data Linkages: Building the Capacity to Communicate

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: MT-all * b. Program/Project: MT-all

Attach an additional list of Program/Project Congressional Districts if needed.
Attachment:
Title :
File :

17. Proposed Project:
* a. Start Date: 7/1/2010 * b. End Date: 6/30/2013

18. Estimated Funding ($):

a. Federal	**$ 8733492**
b. Applicant	**$ 0**
c. State	**$**
d. Local	**$**
e. Other	**$**
f. Program Income	**$**
g. TOTAL	**$ 8733492**

*** 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:	Ms.	* First Name:	Denise
Middle Name:			
* Last Name:	Juneau		
Suffix:			
Title:	Superintendent of Public Instruction		
* Telephone Number:	(406)444-5658	Fax Number:	(406)444-2893
* Email:	OPISUPT@MT.GOV		
* Signature of Authorized Representative:		* Date Signed:	

Application for Federal Assistance SF-424 Version 02

*** Applicant Federal Debt Delinquency Explanation**

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

U.S. DEPARTMENT OF EDUCATION

BUDGET INFORMATION

NON-CONSTRUCTION PROGRAMS

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:
Montana Office of Public Instruc...

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	$ 664,584	$ 733,512	$ 752,440	$ 0	$ 0	$ 2,150,536
2. Fringe Benefits	$ 206,264	$ 231,805	$ 242,372	$ 0	$ 0	$ 680,441
3. Travel	$ 3,653	$ 3,653	$ 6,278	$ 0	$ 0	$ 13,584
4. Equipment	$ 35,000	$ 0	$ 0	$ 0	$ 0	$ 35,000
5. Supplies	$ 38,000	$ 38,000	$ 38,000	$ 0	$ 0	$ 114,000
6. Contractual	$ 1,225,633	$ 2,490,614	$ 634,013	$ 0	$ 0	$ 4,350,260
7. Construction	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
8. Other	$ 294,050	$ 292,150	$ 149,650	$ 0	$ 0	$ 735,850
9. Total Direct Costs (lines 1-8)	$ 2,467,184	$ 3,789,734	$ 1,822,753	$ 0	$ 0	$ 8,079,671
10. Indirect Costs*	$ 223,938	$ 238,201	$ 191,682	$ 0	$ 0	$ 653,821
11. Training Stipends	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
12. Total Costs (lines 9-11)	$ 2,691,122	$ 4,027,935	$ 2,014,435	$ 0	$ 0	$ 8,733,492

***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: 6/30/2010 (mm/dd/yyyy)

Approving Federal agency: [X] ED [ ] Other (please specify): _____ The Indirect Cost Rate is 16.3%

(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:
Montana Office of Public Instruc...

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

SECTION B - BUDGET SUMMARY

NON-FEDERAL FUNDS

Budget Categories	Project Year 1(a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
2. Fringe Benefits	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
3. Travel	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
4. Equipment	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
5. Supplies	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
6. Contractual	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
7. Construction	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
8. Other	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
9. Total Direct Costs (lines 1-8)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
10. Indirect Costs	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
11. Training Stipends	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
12. Total Costs (lines 9-11)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Standard Form 424B (Rev.7-97)

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

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

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

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

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management, and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. "4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. "1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. '794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. "276a to 276a-7), the Copeland Act (40 U.S.C. '276c and 18 U.S.C. "874) and the Contract Work Hours and Safety Standards Act (40 U.S.C. " 327-333), regarding labor standards for federally assisted construction sub-agreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. "1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. "7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. "1721 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance

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

7. Will comply, or has already complied, with the requirements of Titles II and III of the uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with the provisions of the Hatch Act (5 U.S.C. "1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

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

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. "2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. "4801 et seq.) which prohibits the use of lead- based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

Signature of Authorized Certifying Representative:
Name of Authorized Certifying Representative: Denise Juneau
Title: Superintendent of Public Instruction
Date Submitted: 12/03/2009

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 [X] Grant [ ] Cooperative Agreement [ ] Loan [ ] Loan Guarantee [ ] Loan Insurance	[X] 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: [X] Prime [ ] Subawardee Tier, if known: 0 Name: Address: City: State: Zip Code + 4: - **Congressional District, if known:**	**5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:** Name: Address: City: State: Zip Code + 4: - **Congressional District,** if known:	
6. Federal Department/Agency:	**7. Federal Program Name/Description:** CFDA Number, if applicable:	
8. Federal Action Number, if known:	**9. Award Amount,** if known: $0	
10. a. Name of Lobbying Registrant (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: -	**b. Individuals Performing Services** (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: -	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.	Name: Denise Juneau Title: Superintendent of Public Instruction Applicant: Montana Office of Public Instruction 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	
Montana Office of Public Instruction	
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Prefix: First Name: Denise	Middle Name:
Last Name: Juneau	Suffix:
Title: Superintendent of Public Instruction	
Signature: _____	Date: 12/03/2009

ED 80-0013 03/04

SUPPLEMENTAL INFORMATION REQUIRED FOR DEPARTMENT OF EDUCATION GRANTS

1. Project Director:

Prefix:	* First Name:	Middle Name:	* Last Name:	Suffix:
Ms.	Madalyn		Quinlan	

Address:

* Street1: 1227 11th Avenue

Street2:

* City: Helena

County: Lewis & Clark

* State: MT* Zip / Postal Code: 59620 * Country: **USA**

* Phone Number (give area code)	Fax Number (give area code)
(406)444-3168	(406)444-2893

Email Address:

MQUINLAN@MT.GOV

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: **Project Abstract** Pages: **1** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Project Abstract.pdf**

Project Abstract

Project Title: Montana P-20 Data Linkages: Building the Capacity to Communicate

The Montana Office of Public Instruction (OPI), in partnership with the Office of the Commissioner of Higher Education, the Department of Public Health and Human Services, and the Department of Labor and Industry, requests $8,733,492 of IES assistance to establish a P-20 longitudinal data system, including the policy and technological foundations for the system. This grant proposal includes five Project Outcomes:

(1) establishing data linkages among state agency partners to connect from early childhood to K-12 to postsecondary and the workforce;

(2) creating an electronic student transcript repository for K-12 education;

(3) creating a data governance structure for P-20;

(4) implementing business intelligence and web reporting tools for users of P-20 data; and

(5) developing a system of P-20 performance measurement and reporting.

In developing this grant application, Montana has reviewed the data system capabilities and elements required for Statewide Longitudinal Data Systems. The focus of this grant proposal is to address data linkages among early childhood programs, K-12, postsecondary institutions and the workforce development services. Specifically, this request is intended to address Montana's remaining five required data system elements for which the state has not yet secured resources:

- the capacity to communicate with higher education data systems;
- student-level transcript information, including information on courses completed and grades earned;
- student-level college readiness test scores;
- information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and
- other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

The proposed project outcomes address all of the seven data system capabilities required by the IES grant program. The major activities of the grant include identifying the methods for matching student-level data across the data systems of the state agency partners in a manner that maintains confidentiality and protects individual privacy. With resources from this grant, Montana proposes to create an electronic student transcript repository for storing information about student course-taking and course completion. A transcript will be generated for every student at the end of every grade. An Interagency P-20 Data Governance Workgroup will be established to create a data governance structure with supporting policies and procedures. OPI and its partnering agencies will use business intelligence tools and web reporting to improve user access to valid and reliable data from a P-20 data warehouse. A primary use of the reporting tools will be to report on performance measures identified by education policymakers and the legislature through an interim legislative committee process that is currently underway. In addition, OPI and stakeholder groups will collaborate to develop additional performance indicators connecting early childhood programs and K-12 education.

Project Narrative

Project Narrative - Project Narrative

Attachment 1:
Title: **Project Narrative** Pages: **28** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Project Narrative.pdf**

MONTANA P-20 DATA LINKAGES:

BUILDING THE CAPACITY TO COMMUNICATE

Project Narrative

(a) Need for Project

The Montana Office of Public Instruction (OPI), in partnership with the Office of the Commissioner of Higher Education (OCHE), the Department of Public Health and Human Services (DPHHS), and the Department of Labor and Industry (DLI), requests $8,733,492 of IES assistance to establish a P-20 longitudinal data system, including the policy and technological foundations for the system. OPI will do this by (1) establishing data linkages among state agency partners to connect from early childhood to K-12 to postsecondary and the workforce; (2) creating an electronic student transcript repository for K-12 education; (3) creating a data governance structure for P-20; (4) implementing business intelligence and web reporting tools for users of P-20 data; and (5) developing a system of P-20 performance measurement and reporting.

The mission of OPI is "to provide the vision, advocacy, support, and leadership for schools and communities to ensure that all students meet today's challenges and tomorrow's opportunities."

The agency is currently pursuing five key strategic directions, which include:

1. Ensure that every child begins school and graduates with the knowledge and skills necessary for success in the 21st century global society by strengthening Montana education from preschool through college and the workforce.
2. Improve student achievement in struggling schools by providing leadership for school turnaround efforts across the state.
3. Provide current and accurate educational information to the state, school districts, and communities to promote data-driven policy decisions and assist in improving teaching and learning.
4. Improve school-community relationships and student performance through the development and implementation of a comprehensive communication plan.
5. Provide systematic training opportunities and focused staff development for OPI staff to support their work and ensure quality customer service.

Of the five strategic directions of the agency, this grant will directly assist OPI with strategic direction 3: *Provide current and accurate educational information to the state, school districts, and communities to promote data-driven policy decisions and assist in improving teaching and learning.* By improving the quality and accessibility of education information, the OPI and its partners will make progress toward achieving all of its strategic directions.

Status and Limitations of the Current System

The data system elements required by the USED for this grant competition are the same 12 elements required by the State Fiscal Stabilization Fund for a statewide P-16 education data system. These elements are described in section 6401(e) (2) (D) of the America COMPETES Act. The 12 elements are shown in the table below. The checked items indicate elements that have been implemented in Montana.

(i) Preschool through grade 12 education and postsecondary education With respect to preschool through grade 12 education and postsecondary education--	✓ a unique statewide student identifier that does not permit a student to be individually identified by users of the system; ✓ student-level enrollment, demographic, and program participation information; ✓ student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs; • the capacity to communicate with higher education data systems; and ✓ 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--	✓ yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965; ✓ information on students not tested by grade and subject; • a teacher identifier system with the ability to match teachers to students; • student-level transcript information, including information on courses completed and grades earned; and • student-level college readiness test scores.
(iii) Postsecondary education With respect to postsecondary education, 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; and • other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

The OPI implemented a statewide student information system, AIM (Achievement in Montana) in the 2006-07 school year. At the first point of contact with the public school system, OPI assigns each student a unique statewide student identifier that does not permit a student to be individually identified by users of the system. Using AIM, OPI collects student-level enrollment, demographic, and program participation information. Student-level information

about the points at which students exit, transfer in, transfer out, drop out, or complete P-12 education programs is maintained in AIM. The Board of Regents of Higher Education has adopted a policy requiring all Montana high school transcripts sent to the Montana University System to include the K-12 statewide student ID. Within OPI's production data systems, the agency stores the yearly test records of individual students with respect to assessments and information on students not tested by grade and subject. The OPI also has a basic data audit system assessing data quality, validity, and reliability within the AIM system.

Of the six data system elements that Montana has not yet achieved, the OPI has already secured state funding for the teacher identifier system with the ability to match teachers to students. The Montana legislature has provided state general fund dollars to build a school staffing module, which will link data from teacher education programs at the institutions of higher education within Montana to the OPI data systems for educator licensure and for reporting school district teaching assignments. As part of its system development, the OPI will implement the NCES Secondary School Course Classification System. In addition, the OPI will, for the first time, collect data on salaries and benefits for K-12 educators employed in the public school system by creating linkages with the state Teachers Retirement System. The new school staffing module will allow the state to collect information at the individual teacher and staff level and use that data to report on teacher preparation, qualifications, and effectiveness; to monitor the supply and demand for educators; and to evaluate incentives implemented by the State of Montana to recruit and retain qualified educators in critical shortage areas identified by the state. This new data system module is expected to be brought on line for the 2011-12 school year.

In March 2009, the Montana Office of Public Instruction was awarded an IES Statewide Longitudinal Data Systems grant for the development of a K-12 Data Warehouse and the implementation of a Data Governance structure within the OPI. In the first year of the grant, which began in July, the OPI is developing an Enterprise-wide Data Architecture and developing the Data Governance structure. Ultimately, the grant funding will facilitate the migration of data within OPI's numerous legacy systems to the new K-12 data warehouse and provide resources for OPI to implement business intelligence tools for use by a broad community of users.

The focus of this new grant proposal is to address the data linkages among early childhood programs, K-12, postsecondary institutions and the workforce development services. Specifically, this request is intended to address Montana's remaining five required data system elements:

- the capacity to communicate with higher education data systems;
- student-level transcript information, including information on courses completed and grades earned;
- student-level college readiness test scores;
- information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and
- other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

As stated in the request for applications under this grant program, to be considered for grant funding the state longitudinal data system (SLDS) must have the following seven capabilities:

- Enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces
- Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice
- Link student data with teachers and enable the matching of teachers and students so that a given student may be matched with the particular teachers primarily responsible for providing instruction in various subjects
- Enable the matching of teachers with information about their certification and teacher preparation programs
- Enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers and school leaders on achievement of their students
- Ensure the quality and integrity of the data contained in the system
- Provide the state with the ability to meet the reporting requirements for the USED, especially for the State Fiscal Stabilization Funds and *EDFacts*.

For each objective in this grant proposal, the narrative includes a statement about which data system capabilities and elements are addressed by the objective.

In writing this grant proposal, the OPI is joined by its partners in the Office of the Commissioner of Higher Education, the Department of Public Health and Human Services, and the Department of Labor and Industry. Our inter-agency discussions have re-enforced what many of us already know, which is that the "capacity to communicate" is about much more than technological solutions. The capacity to communicate must be supported by shared policies, procedures, and agreements. As result, this grant application is heavily focused on the interagency Data Governance structure and supports that the agencies will need to successfully link data across information systems. The ultimate goal is to build secure information systems for the purpose of improving outcomes for Montanans while protecting the privacy of our citizens.

Each of the partners in this grant has invested substantial resources in the development of information systems to meet their programmatic needs. In addition to the system developments described above for K-12, a brief description follows of the data system developments underway for the other state agency partners.

Office of Commissioner of Higher Education: The Montana University System (MUS) maintains a student unit record-level, longitudinal data warehouse. The warehouse contains enrollment, course information, and graduation data of students enrolled in postsecondary education in Montana. This rich set of data includes student demographics, assessment outcomes, course grades and instructors, as well as the ability to track transfers between MUS institutions, and the ability to track cohorts of students over time. The Office of the Commissioner of Higher Education maintains the warehouse and supplies the campuses with reporting and analysis tools. The Montana Board of Regents utilizes this information system to assess critical performance indicators and key measures within its strategic plan. The warehouse includes data from 2001 forward and is supported by two full-time FTE. The MUS has also

developed a data sharing agreement with the Montana Department of Labor and Industry that enables the agencies to track the workforce outcomes of MUS graduates. A Memorandum of Understanding with the Department of Labor and Industry has been in place since 2007 and provides the MUS with access to historical and current Unemployment Insurance (UI) wage records. Because of this linkage with UI data, the MUS has been able to analyze the percentage of graduates that find employment in Montana, the level of wages they command, and the industries employing them.

Department of Public Health and Human Services:

The Department of Public Health and Human Services is taking measured steps to move safety net eligibility programs from mainframe legacy systems to web-based, rules-engine models. The new Combined Healthcare Initiative and Montana Eligibility System (CHIMES) encompasses information systems for Medicaid, Supplemental Nutrition Assistance Program (SNAP)[1], and Temporary Assistance to Needy Families (TANF). The CHIMES-Medicaid web-based system was successfully implemented in October 2009. The design phase for CHIMES-SNAP and CHIMES-TANF is underway with implementation slated for October 2011. The three programs will be independent but linked for end-users through enterprise architecture, service-oriented rules-governed data sharing, and a common client index. Web portals will ease interfaces and access with partner agencies. The Childcare Under the Big Sky (CCUBS) Early Childhood web-based system has interfaces with TANF and Child Protective Services (CAPS), manages eligibility and payments for child care services, manages contract and payments with providers for many contract types, and manages child care licensing data. The CCUBS system tracks all children who are affiliated with receiving scholarships for child care and can reference families as well. Children can also be linked to provider types and locations. A diagram of the relationships among the Early Childcare Programs is included in Appendix A.

Department of Labor and Industry: MontanaWorks is an Oracle-based database. The system contains employer, job, and job seeker information. MontanaWorks also includes Workforce Investment Act (WIA) training, Trade Assistance Act training, American Recovery and Reinvestment Act of 2009 (ARRA) training and numerous other state and federal training programs. State apprenticeship data will be added to MontanaWorks soon.

Montana's Unemployment Insurance (UI) system is an Oracle platform with attached imaging and workflow capabilities. UI information provides wage data which can be identified by occupation and industry thus making this data useful for linking educational and workforce skills training to wage and benefit outcomes over a worker's lifetime.

(b) Project Outcomes

This grant proposal is designed to meet five project objectives:

(1) Establish data linkages among state agency partners to connect from early childhood to K-12 to postsecondary, job training and apprenticeships and the workforce;

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[1] The Supplemental Nutrition Assistance Program (SNAP) provides a basic safety net to millions of people by providing monthly benefits to eligible low-income families which can be used to purchase food.

(2) Create an electronic student transcript repository for K-12 education;

(3) Create an Interagency P-20 Data Governance Workgroup;

(4) Implement business intelligence and web reporting tools for users of P-20 data; and

(5) Develop a system of P-20 performance measurement and reporting.

1. Data Linkages from Early Childhood to K-12 to Postsecondary to Workforce

For several years, a significant portion of the public policy discussions about how well Montana's education system is performing has been focused on transitions and "readiness" --- school readiness for young children and K-12 students and career and college-readiness for high school and postsecondary students. To address these questions about school, college and career readiness, Montana needs data systems with the capacity to link data across time and across programs.

By linking data from early childhood programs to K-12 programs, the state will be able to evaluate programs and identify early childhood practices that are most closely correlated with student success in the K-12 years. The data linkages are likely to include children's demographic information, early childhood program participation, information from screening and assessments, and information on the quality and types of early childhood programs. Building data interfaces will allow agencies to analyze trends, program effectiveness, and to address weaknesses within programs. The P-20 data warehouse provides opportunities to link information related to service interventions for children, determine if services are complementing or duplicating each other, and identify service area gaps. These data system linkages will inform agency processes for developing early warning systems to identify at-risk students and populations. The longitudinal data will also help OPI identify barriers to teaching and learning and develop the strategies to eliminate the barriers.

By linking data from safety net programs such as Temporary Assistance for Needy Families and the Supplemental Nutrition Assistance Program, OPI and DPHHS will facilitate (1) the evaluation of program effectiveness and impact on long-term student success and (2) the determination of eligibility for school-based programs such as the national school lunch program.

Currently, through the Early Childhood Project at Montana State University (MSU), DPHHS has a database for recording and verifying training and education of Early Childhood teachers/caregivers and training/professional development of each licensed or registered person annually. Information is collected related to college credits earned in the areas of early childhood, elementary education, special education, and business. The highest level of education attained is recorded in the system, including degrees earned and the granting institutions. All self reports are verified. The database includes records for approximately 1000 early childhood teachers/caregivers statewide on the detailed information and tracks over 5000 professionals in their continuing education/annual training requirements. There is currently an interface between this database and the Early Childhood system (CCUBS). The potential exists to draw linkages at some future date to the P-20 data warehouse via the CCUBS interface with the data warehouse.

By creating the P-20 data warehouse and common client index with Early Childhood, OPI, OCHE, and DLI, the potential exists to link information about children in early childhood programs with information about their parents and successful workforce outcomes. For example, the DPHHS data system provides the ability to track teen parents receiving services and staying in school, or parents who are receiving scholarships to attend college or contribute to the workforce, or those who have obtained GEDs. Data from the P-20 data warehouse can be used to assess how services support each other and to analyze outcomes, immediate (by relationship) and long term (individual child).

In the transition from K-12 to postsecondary, Montana's education policymakers are interested in raising college continuation rates[2], college retention rates, and college graduation rates. A key factor in improving these rates is to know how well K-12 public schools are preparing students for postsecondary coursework. For example, in the fall of 2008, of the recent Montana high school graduates attending the Montana University System, 29.3% were enrolled in at least one remedial math or writing course. By improving the data linkages between the K-12 and postsecondary systems, researchers, analysts and policymakers can identify strategies and target resources to decrease remediation rates and improve college readiness.

In the workforce, employers seek information about the skill level of the labor force, including math, science, technical, and writing skills. From the P-20 data warehouse, the Office of Public Instruction will be able to link information about high school course-taking patterns, including vocational courses, with workforce services information. As a result, there will be greater ability to answer many of the questions raised by employers about the skill level of the labor force and to improve the state's competitive advantage in terms of economic development and diversification. Even more important, from an overall economic development point of view, labor pipelines will be easier to establish between postsecondary institutions including colleges of technology programs and key industry development areas. These talent pipelines will be key for laid off workers and discouraged and re-entry workers seeking to re-skill in new occupations in emerging industries. The warehouse will provide the ability to obtain information regarding what new skills will be in demand based on the changing local economic mix. By using the information in the warehouse those new skills will be readily identified and provided through the Montana postsecondary and the workforce training system. Simply put, the challenge for Montana is not to find jobs for people but instead to find people for the new jobs appearing in the local economy. Information from the postsecondary data warehouse will also be linked to workforce services and unemployment insurance data for research and analysis purposes.

The Department of Labor and Industry will use its MontanaWorks database system to supply information to OPI. Data collected by MontanaWorks will be matched to data in the P-20 data warehouse through either real-time or nightly data exchanges to OPI. The data is currently collected in an Oracle format and will have to be converted to SQL so that OPI can receive the data. All relevant data with regard to identifiers will need to be housed and transferred via approved secured environments. DLI estimates they will assign 1 FTE per year to complete any

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[2] The college continuation rate is the percent of students that enrolled in college somewhere in the United States during the fall following high school graduation.

programming needed for data transfers between MontanaWorks and OPI as well as about 300 contracted hours to assist with data conversion.

For the purposes of this grant, the UI Division will provide quarterly wage files to the data warehouse adhering to confidentiality and security restrictions. The files can be structured to meet the needs of the statistical analysis of the study. The DLI estimates part of one FTE will be needed for this function

As stated above, there are many diverse systems that need to link in order to populate the proposed warehouse and to effectively use the warehouse for analysis. (Please see Appendix A for a diagram of Proposed P-20 Data Warehouse Linkages.) The diversity of the data systems and their locations present a number of challenges including, the transport mechanism that will be used between systems, the methodology to match information between systems, the establishment of common definitions and interpretation for the data set, and an acceptable data audit process which provides the appropriate level of confidentiality required by each agency.

Of particular concern is the ability to match student data across the different data systems. The OPI maintains a unique student identifier, but neither DPHHS nor DLI have the K-12 student identifier in their systems. (The OCHE began collection of the K-12 student ID in 2009.) A method will have to be devised to link a student's ID to the identifier used in other systems. In particular, the individual's social security number is used in some of the systems, and for privacy reasons, the OPI does not access or maintain a student's SSN. It is anticipated that an independent system will need to be developed or acquired that will assist in the matching of student data among the different systems.

These challenges of creating linkages and matching data are significant, but not unique to Montana. The project anticipates a establishing a group of individuals to further define these issues, research solutions that other SEAs have used, and develop an approach for Montana to follow.

The first year of the project has been allocated to establishing a method to match data between systems, agree upon transport techniques, and agree upon the initial data set to be traded. Once these items are agreed upon, an additional year and three contractors have been allocated to develop the required software and to test the solution prior to the first exchange of information.

Due to the highly sensitive nature of the new linkages and the data that will be housed in the proposed data warehouse, the OPI feels that an independent review of security is warranted. A consultant will be engaged to review and analyze the level of vulnerabilities on the networks and servers and to evaluate network security architecture, policies, and processes. This effort will also review and assess the strength of the policies and procedures in place to restrict access to sensitive data. As explained in the upcoming data governance section, a lawyer will be hired to work with agency lawyers to ensure that legal issues related to data sharing are properly addressed. It is anticipated that the lawyer will also be involved the data security review as well.

The security review will be conducted once the proposed linkages are agreed upon, but before actual development of the linkages commences. It will encompass the data systems used by OPI,

the Office of Commissioner of Higher Education, the Department of Health and Human Services and the Department of Labor and Industry.

A one-time review of security will provide valuable information as the P-20 longitudinal data system is designed and implemented, but the sensitivity of the data contained within the P-20 data warehouse demands an ongoing review of security. The OPI intends to implement industry best practices to review, assess and address security issues on an ongoing basis. In order to give this issue the attention it deserves, the agency intends to add an information systems security officer to staff to manage and execute the process.

How does this Objective address System Requirements?
Montana's Objective #1 addresses the following required system capabilities:

- Enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces
- Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice
- Enable the matching of teachers with information about their certification and teacher preparation programs (by establishing linkages from OCHE to OPI)
- Enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers and school leaders on achievement of their students
- Provide the state with the ability to meet the reporting requirements for the USED, especially for the State Fiscal Stabilization Funds and *EDFacts*.

Montana's Objective #1 addresses the following required system data elements:

- Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs
- The capacity to communicate with higher education data systems;
- Student-level college readiness test scores (can be provided from OCHE for students enrolled in MUS)
- Information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and
- Other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

2. Create Electronic Student Transcript Repository for K-12 Education

It is a goal of the OPI to establish a method to make available information related to a student's transcripts to qualified recipients in a secure manner.

Under its 2009 IES grant, the OPI plans to develop a K-12 data warehouse and associated tools. It is OPI's intention to build upon the K-12 data warehouse and add data as it becomes available to the agency. The next set of data that the OPI intends to collect and store is student-level transcript information, including information on courses completed and grades earned. This data

is not currently captured by the agency and will be a significant increase in the amount of data the agency collects. The benefit to OPI is that the project will allow the agency to facilitate the exchange of transcript information between qualified entities.

The information associated with the transcripts is also an important component of the P-20 data warehouse and can be used to assist decision-makers in assessing state and local efforts to increase student performance and career readiness.

The OPI has a number of goals associated with electronic student transcripts, including:

- The capture of data associated with a student's transcript on at least an annual basis throughout a student's K-12 academic career,
- The collection of postsecondary transcript data from public institutions of higher education in Montana
- The storage of the transcript data in the P-20 data warehouse,
- The transfer of the transcript data to qualified recipients in a secure manner,
- The storage of K-12 transcripts in the Montana higher education data warehouse for use within the higher education system

The OPI believes that there are a number of qualified recipients of transcript data including students and parents, public institutions of higher education in Montana, institutions of higher education throughout the US (including private institutions in Montana) and co-academic organizations (e.g. the armed forces, scholarship organizations, certificate boards). Due to the number of potential trading partners, the OPI intends to establish a relationship with a national organization that can facilitate the transfer of student-level transcript data between the OPI and other qualified recipients.

The transfer of transcript information will be accomplished using the School Interoperability Framework (SIF), which is emerging as the industry standard for the exchange of student data. The OPI K-12 SLDS project will define how SIF will fit into the overall enterprise architecture, while this grant will build on that foundation to implement SIF to exchange data with a national transcript service. Because this is anticipated to be the initial implementation of SIF within the agency, the project team will need to purchase a SIF software development kit and a SIF Zone Integration Server (ZIS).

Due to the number of potential data connections among agencies and the implementation of SIF, an additional Computer Systems Analyst/Programmer will be added to both OPI and OCHE staff to assist with the establishment of the connections and to oversee and enhance the connections on an ongoing basis. The OPI anticipates the connections described in this section as a first step. It is expected that other state agencies will contribute information to the P-20 data warehouse in the future.

At the conclusion of the initiative, the OPI will have longitudinal transcript information stored in its data warehouse. Using its business intelligence tools, OPI will make data available through dashboards, web portals and reporting. These tools and data can then be used to supply information to state decision-makers to improve student academic performance and college and career-readiness.

The transcript data represents a significant increase in the amount of data stored in the data warehouse and will necessitate a review of the OPI's current data audit process and procedures. Data audits are critical to ensuring data quality, validity and reliability especially as more data are added to the data warehouse. While many of the elements needed for a data audit such as data standards and definitions are addressed in the original design of the K-12 data warehouse, other items such as statistical checks and on-site audits will need to reviewed and updated. The OPI's current data audit process is primarily an ad-hoc manual effort and will need to be enhanced to adequately allow for increased dataset and new data. It is anticipated that OPI staffing will need to be increased in order to accommodate the quantity of data collected and to formalize the existing processes.

The project will spend three months reviewing the existing process procedures and developing a recommendation based on the new data being collected and reported. (This effort will also encompass the new data collected from other agencies.)

How does this Objective address System Requirements?
Montana's Objective #2 addresses the following required system capabilities:

- Enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces
- Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice
- Link student data with teachers and enable the matching of teachers and students so that a given student may be matched with the particular teachers primarily responsible for providing instruction in various subjects
- Enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers and school leaders on achievement of their students
- Provide the state with the ability to meet the reporting requirements for the USED, especially for the State Fiscal Stabilization Funds and *EDFacts*.

Montana's Objective #2 addresses the following required system data elements:

- Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs
- The capacity to communicate with higher education data systems;
- Student-level transcript information, including information on courses completed and grades earned;
- Information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and
- Other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

3. Interagency P-20 Data Governance Workgroup

This proposal seeks to expand on the data governance structure which will be developed in the 2009 IES Grant. That grant provides resources to establish a strong, engaged OPI Governance Board and system which will oversee data for the OPI and local educational agencies. It also funds the development of a K-12 longitudinal data system.

The proposed P-20 project will expand these longitudinal data systems so that state K-12 data systems will link to and establish interoperability with early learning (pre-K), postsecondary education, workforce, social services and additional state agency data systems as Montana is able to identify them. Correct and appropriate use and interpretation of data for P-20 analysis can only be ensured if both owners and users of data possess a common understanding of the meaning and representation of the data.

Key to this effort is the creation of governance structures to guide data collection, sharing and use. An Interagency P-20 Data Governance Workgroup will be created to lead and guide this effort. The workgroup will provide data leadership, data stewardship, data coordination and collaboration, ensure data quality, identify areas for data improvement and work to ensure appropriate data dissemination. The workgroup's duties will include fostering data-driven decision-making throughout agencies, resolving data turf issues, improving the quality of data collection, reporting and usage, and through the creation and enforcement of robust data security and confidentiality policies, managing data vulnerabilities and creating information sharing throughout program offices.

The workgroup will be comprised of representatives, appointed by agency directors, from all organizations participating in the P-20 project. Each representative will be responsible for 1) managing and improving the longitudinal data system in their respective areas of expertise; and 2) collecting system specific metadata to be incorporated into the P-20 data dictionary. Representatives will be expected to understand the business processes of their program areas, and serve as liaisons for other related areas and offices for which they provide representation. One critical criterion for selection of representatives will be based on their understanding that the data belongs to each program office, not to the IT department which may build the system. This principle is key to the effectiveness of an Interagency P-20 Data Governance Workgroup. With respect to interoperability, data exchange policies and procedures will need to be established by the workgroup with each agency responsible for its respective data.

The workgroup will assign a program director who will also serve as a data quality manager and hire two business analysts who will serve as data steward coordinators working with data stewards in each agency. They will also conduct the needs assessments and implement work plans established by the workgroup. The workgroup will adopt policies and procedures and guidelines for the establishment and operation of the P-20 Data Governance system.

As indicated previously, the work proposed for this project will build upon past accomplishments and work in progress. In the past three years, Montana has made significant steps in its handling of data and in formalizing data collection processes. Through the establishment of the AIM (Achievement in Montana) student information system, Montana now has a consistent and confidential statewide student identifier, a data collection schedule, a database of definitions, formats, code sets, business rules, data dictionary and other information about data elements it

collects from districts and schools. The OPI has a web site for student data collections with schedules, definitions, answers to frequently asked questions, web-based training and seminars plus face to face regional training for data submissions, and verification and validation procedures for AIM data. Reports are provided to submitters to check the accuracy of their submitted data, and validation checks on data in the AIM database are done regularly. OPI has a Student Records Confidentiality policy which is FERPA-compliant and requires annual staff training regarding the use of the policy and general security issues. This policy has led to higher quality data and has increased data security making Montana more prepared for implementation of a P-20 longitudinal data system.

Montana is implementing a data governance system through the 2009 IES grant which will further the work performed in the past three years. This system will align and strengthen the use of data between the SEA and LEAs in Montana. A project manager and two business analysts will be hired to oversee the 2009 IES grant. One outcome will be the establishment and operation of a K-12 data governance leadership committee.

Staff hired and the leadership committee established in the 2009 IES Grant will be the basis for the work proposed in the P-20 grant thus enabling Montana to "jump start" the crucial start up phase of the project. By extending the work of the existing staff and expanding the existing committee, Montana will be able to telescope its startup work and move quickly into implementation.

Building a structure to house and deliver data and developing the processes to integrate data from across a myriad of agencies is not enough. Data mapping is a key element in establishing effective data exchange among agencies which span the executive, judicial and state education realm. Additionally, data quality best practices must be in place at the data collection sources, (schools, preschools, the department of health, job training agencies, and higher education) to ensure that decisions and policies are based on correct data, research findings will generate accurate conclusions, and agencies and schools will be appropriately informed regarding effective programs and practices. A solid P-20 governance system will help ensure success with both the data quality and the mapping of the elements stored in the warehouse.

Therefore implementation of the P-20 Data Governance system will incorporate the following components:

- Leadership: The interagency workgroup will be comprised of senior leadership from each agency. In addition, the workgroup will have its own program manager who will work with the data stewards from the state agencies. In addition, a business analyst will serve as a data steward coordinator under the direction of the interagency workgroup.
- Data Quality Management. Data policies and procedures adopted by agencies will be reviewed by the workgroup to assure data quality, which includes validation rules. The workgroup will take the lead in developing and establishing a statewide data certification process for personnel who provide the data in the field.
- Controlled Analysis and Reporting. Since each agency will have its own data available for use in the P-20 data warehouse, there will be clear and available documentation of each agency's data model and processes. Metadata will be developed which includes a data dictionary, business rules, standard reports, calendars, database schemas and source code.

- Security and Confidentiality. Infrastructure components will be built into the P-20 system including authentication, access controls or role based security, firewalls, antivirus, and anti-spyware and intrusion detection. Each agency security officer must coordinate the agency's security plan with the P-20 overall security plan of the P-20 data. All employees are expected to follow each agency's policy for protection of confidential information, including the release of individual student information and data from which an individual's identity could be traced or inferred. Devising a method to connect student-level information from AIM to the pre-school, higher education and job placement and employment system while ensuring confidentiality of student information (in accordance with FERPA) will be a major part of this grant project. Other confidentiality requirements such as HIPAA must also be adhered to. In order to assure that these multiple requirements are met to the satisfaction of each agency, this grant proposes to hire an attorney whose mission will be to assure that all data collected, and used within the P-20 data warehouse is done in accordance with the relevant state and federal law, regulation and policy. The attorney will work with each agency's legal staff and with agency audit personnel to assure up front that the data audit and confidentiality requirements are met. Each agency is subject to its own federal and state audit and monitoring processes and the P-20 attorney will ensure compliance with all these requirements within the P-20 project.
- Resource Management. The Data Governance workgroup will ensure that adequate resources are made available to address issues as they arise. Careful staffing allocations by all the partner agencies will provide for unforeseen developments and complications which are expected to occur. Furthermore, it is expected that state and federal requirements will increase over time. Policies and procedures will be developed with an eye toward accommodating potential and likely future requirements. This project proposes to draw on expertise from contractors who have successfully assisted states in building P-20 Data Governance systems. In addition, Montana will make use of the resources available through the IES grantees group and through the Data Quality Campaign.
- Data Use and Accessibility. The interagency workgroup will be expected to develop and implement processes which balance timely data use and access with secure data distribution processes. In addition, considerable time and funds are associated with conducting training throughout the affected agencies, plus training in field offices and schools and districts regarding data collection and also appropriate use of the data for longitudinal analysis.

How does this Objective address System Requirements?
Montana's Objective #3 addresses the following required system capabilities:

- Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice
- Ensure the quality and integrity of the data contained in the system

Montana's Objective #3 addresses the following required system data elements:

- The capacity to communicate with higher education data systems;
- A state data audit system assessing data quality, validity, and reliability.

4. Business Intelligence and Web Reporting Tools for Users of P-20 Data

Using the funds the OPI received in its 2009 IES grant award, the OPI will further enhance and develop business intelligence (BI) tools which will improve data-driven decision making. These tools will allow the data to be combined and queried in ways that are now extremely labor intensive and therefore infrequently used. If the OPI is awarded funds for this grant, the OPI, along with its stakeholders, will be able to facilitate state and federal reporting and provide more accurate, consistent data. These tools will allow the various stakeholders to track groups of students and learn how the educational services they have received have contributed to their success.

Timely and accurate data and the powerful analyses made possible by the business intelligence tools will be invaluable for the State Superintendent and OPI, the Governor and the legislature, the Montana Board of Public Education (K-12), boards of trustees, administrators and teachers. It will assist in policy and resource allocation decisions as well as an overall ability to determine what is providing value to the education system, industry and the workforce. These tools will ultimately be the basis to driving Montana's economic future by equipping leaders and decision-makers with the right information at the right time and in the right forum.

Phase III of OPI's 2009 IES grant will be to implement business intelligence tools. These tools will help OPI develop a standard set of reports and dashboards that are requested most often. In addition, OPI will create ad hoc reports to meet other requests for information from OPI staff, other agencies, stakeholders, the legislature, and the LEAs. The agency will build on these new tools to incorporate the reporting, dashboards and interactive query tools that are required for the analysis of the additional P-20 data. As additional target audiences are identified, OPI will provide training to the new stakeholders. Training will include information on data quality as well as how to use the business intelligence tools.

During the analysis phase of this project, the OPI, DPHHS, DLI and OCHE will investigate stakeholder reporting, dashboard and interactive querying needs. This analysis will determine what data and analysis is most important for the stakeholders to see on a regular basis. The project team will then work together to define the dashboard and reporting needs as well as the degree of interactive querying that is needed. The end result will be a system that will enable users to make data-driven decisions and use the data easily and independently.

Data sharing and reporting for state and federal purposes will be streamlined through the reliance on a single source of data. Information reported to state policymakers and other state agencies will be consistent with data reported to EDEN. Built-in quality assurance features will provide greater confidence in the accuracy and consistency of our data, allowing SEA staff to spend more time on data analysis and reporting and less time on data clean-up. A further benefit is improved planning for all of our federal, state, and local education partners. With a solid foundation in place, more staff resources can be allocated to anticipating future uses of and changes to the system.

DPHHS will support the P-20 data warehouse by leveraging data from key DPHHS databases. To do this, DPHHS will update source data systems and install and develop a business

intelligence platform. DPHHS will contract the following professional services to accomplish this:

- Install BI software on DPHHS designated server.
- Develop a data mart based on 4 key source systems:
  - ✓ SNAP eligibility (CHIMES-SNAP)
  - ✓ TANF eligibility (CHIMES-TANF)
  - ✓ Child welfare (MACWIS)
  - ✓ Early Childcare (CCUBS)
- Create reports and data exchange routines.
- Train DPHHS end users to use the BI tools and reports.
- Upgrade the CCUBS database from Oracle 6i to Oracle 10g. This is necessary to provide up-to-date and supported database functionality to the business intelligence tools that will be implemented for the P-20 data warehouse.

DPHHS activities for the P-20 data warehouse will be conducted using typical system life cycle phases. (Please see the Project Timeline in Appendix A for specific phases and proposed schedule.)

As part of implementation, up to 20 DPHHS end users will be trained on how to use the reports developed in the BI software. In addition, up to five DPHHS technical and users support staff will be trained on the development and sustainment of the BI reports.

Through this grant, CCUBS will be enhanced to provide data to the P-20 data warehouse. Modifications will include approximately 30 new criteria such as new data collection fields, data entry forms, new contract types or contracts' affiliated data elements and the development of incentives, incentive measures and/or new re-imbursement rates. Additionally, some new notices and reports will be created and existing notices and reports will require modification to adhere to the new processes.

The DPHHS project team will map state and federal reporting elements to system data elements and create automated reporting tools. This will allow staff to meet regular reporting requirements and provide more accurate, consistent data.

An additional Computer System Analyst will be hired within OPI to assist in the identification of reporting requirements. This individual will also be responsible for creating the reports and dashboards that the new target audience requires.

OPI does not have the staffing and resources to address the technical issues involved with interoperability, SIF, and data architecture. Therefore, some of the 2009 IES grant funds will be used to hire a contractor to help define the needs and address the technical requirements.

This project will include building a web site to allow educators, students, parents, and other stakeholders access to standardized reports. The web site will also provide the ability to present dashboards of data tailored to specific audiences. Depending on the needs of the stakeholder the web interface will allow simplistic data mining and ad-hoc reporting with the potential to provide

in-depth data analysis for individuals who have adequate security clearance. Standardized reports will also be available via existing avenues such as the existing OPI web site and hard copy reports, where required.

How does this Objective address System Requirements?
Montana's Objective #4 addresses the following required system capabilities:

- Enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces
- Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice
- Enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers and school leaders on achievement of their students
- Ensure the quality and integrity of data contained in the system
- Provide the state with the ability to meet the reporting requirements for the USED, especially for the State Fiscal Stabilization Funds and EDFacts

Montana's Objective #4 addresses the following required system data elements:

- Student-level transcript information, including information on courses completed and grades earned;

5. Performance Measurements and Reporting

The Montana Office of Public Instruction, the Office of the Commissioner of Higher Education, the Board of Regents and the Board of Public Education are engaged in a process with the Montana Legislature, through its Legislative Education and Local Government Interim Committee, to develop shared policy goals and accountability measures for K-20 education. In its 2009 legislative session, the Montana legislature adopted a resolution urging the state education policy entities to work with the Education and Local Government Interim Committee on developing K-20 shared policy goals and accountability measures that can be used by legislators, the education community, and the public to evaluate progress toward the goals and by the Montana Legislature to guide its funding decisions. The shared policy goals are to be systematically tied to accountability measures in order to ensure timely and effective implementation of policy. The resolution stated that "the goals and measures may include but are not limited to K-20 efforts to: (a) improve the affordability and availability of distance learning; (b) reduce the remediation rate of students entering postsecondary education; and (c) improve the dual enrollment process."

In the process to-date, the following goals, objectives and accountability measures have been proposed and discussed. While these goals, objectives and measures will be changed and refined in the months ahead, the following chart indicates the direction that the shared K-20 policy goals are taking.

Goal	Objective	Measure
Increase College Participation of Montana High School Graduates	Increase the number of Montana high school graduates that attend the Montana University System	Percentage of Montana high school graduates enrolling in postsecondary in the Fall semester immediately following graduation
Increase College Participation of Montana High School Graduates	Increase dual enrollment opportunities	Montana high school students enrolled in Early Access courses
Increase College Participation of Montana High School Graduates	Establish career pathways to give high schools students a jump start on a college degree	Number of Big Sky Pathways developed
Improve College Readiness	Decrease remediation rates of entering freshmen	Percentage of recent Montana high school graduates enrolling in at least one remedial math or writing course
Expand Distance Learning Opportunities	Create easy access to distance learning opportunities through the development of a virtual academy and through improvements to current virtual college capabilities.	Unduplicated headcount of students enrolled in at last one distance learning course
Improve the Availability of Information regarding educational attainment	Link K-12 data system with higher education's data warehouse	Status report on current efforts

One of the specific goals is to improve the availability of information regarding education attainment. In addition, all of the goals and objectives are supported by data collection and analysis. The ability to link data across K-20 and the workforce will be critical to measuring the state's progress toward these goals and objectives.

The development of goals, objectives and indicators for early childhood programs to monitor the state's progress in preparing children for school and for learning is also an objective of this grant proposal. Data linkages from early childhood programs to K-12 and beyond is critical for measuring the long-term impacts of early childhood programs on academic and career success. For example, Montana has developed a Best Beginnings STARS to Quality program, which is a voluntary quality rating improvement system that aligns quality indicators with support and incentives for early childhood programs and early childhood professionals. As part of the Best Beginnings program the state provides scholarships to enroll children in high quality early

childhood settings. A projected outcome of the Best Beginnings scholarship program is that children who are enrolled in high-quality early childhood programs, as determined by the Best Beginnings STARS to Quality program, are less likely to experience grade retention in the public school system. A second projected outcome is that Best Beginnings scholarship children who are in high quality early childhood settings and experience high quality K-12 education are more likely to graduate high school, attend college and are less likely to be convicted of a crime.

These two indicators are examples of how Montana can use data to determine if early childhood services are effective and if scholarship children are more successful in school because of their experience in a high quality program (star 3 or higher) as compared to their counterparts.

The interagency work on developing performance measures and indicators is still in its early stages. The writing of this grant has promoted discussion among the agency participants of indicators that span agency programs. For example, the State of Montana recently began funding full-time kindergarten. One of the anticipated benefits of full-time kindergarten (based on studies performed in other states) is a reduction in the number of students referred for special education services. The state could monitor high quality early childhood programs to see if these programs have a similar effect. The state might also monitor whether early childhood programs are correlated with higher rates of school attendance and other measures of K-12 student achievement.

It is the work of education policymakers and education and social service program managers to determine the goals and objectives that will be pursued by state agencies in partnership with school districts and children's services providers. With resources from this grant for business intelligence tools and web reporting, the state will be able to develop the performance measurement reporting tools to serve the needs of policymakers and the public. This project will include building a web site to allow educators, students, parents, and other stakeholders access to standardized reports. The web site will also provide the ability to present dashboards of data tailored to specific audiences. Standardized reports will also be available via existing avenues such as the existing OPI web site and hard copy reports, where required.

How does this Objective address System Requirements?
Montana's Objective #5 addresses the following required system capabilities:

- Enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces
- Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice
- Enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers and school leaders on achievement of their students

Montana's Objective #5 addresses the following required system data elements:

- The capacity to communicate with higher education data systems

(c) Timeline

The full Project Timeline, organized by outcome including major milestones, dates and responsible party, is located in Appendix A. This timeline coordinates with the 2009 IES grant to build the initial implementation of the K-12 SLDS.

A high level summary is provided below:

The initial prerequisite is to form the project team. This includes engaging contractors as well as adding to staff. These tasks will occur at the onset of the grant.

Outcome 1 - Linkage to Early Childhood, Post Secondary & Workforce

Year 1 will begin with assembling the project team and stakeholders. The first major deliverable is to agree on the methodology to match data among the agencies. At this time, there is no common identifier that is shared among the agency partners. The group will have to decide on how and where the matching will take place. The team will also define the strategy to link the agencies and will define the data sets that will be exchanged.

Due to the sensitive nature of the data being exchanged, the OPI will engage a third party to conduct an independent assessment of the security process and procedures associated with the data exchange. In addition, an attorney will be hired to assist with this effort. Towards the end of year 1, once the techniques are defined, an RFP will be written to engage the third party.

Year 2 will include the matching methodology and the linkages being built. The team will also begin to test the exchange of data. During year 2 the project will also evaluate the RFP responses for the independent information security assessment and engage a vendor. The assessment will be conducted and its findings will be incorporated into the work plan for the team building the linkages.

Year 3 will complete testing and the exchange of data will begin.

Outcome 2 - Create Electronic Student Repository for K-12 Education

Year 1 will identify the data to be collected for the transcript warehouse and the estimation of hardware requirements for the project. Since it is envisioned that the transcript warehouse will build on the K-12 data warehouse that is being built concurrently, there will be specific deadlines to complete these tasks in order for the K-12 SLDS project to proceed without delays. With the exception of starting the effort to connect to higher education, the rest of the tasks will need to wait until the K-12 data warehouse is established.

Year 2 will include making the K-12 data warehouse ready for changes and the transcript information will be added to the extract, transform and load process and initial testing will begin. The initial work on the SIF implementation will also begin during year 2. The link to a national transcript service will start with the creation of an RFP and the evaluation of the responses.

Year 3 includes final testing of the load of transcript data and the final creation of the link between the OPI and OCHE. The SIF implementation will also be put into place as will the connection to a nation transcript vendor.

Outcome 3 - Interagency P-20 Data Governance Workgroup

Year 1 will include assembling the team and reviewing current practices. Many of these same individuals will be working on deliverables for outcome 1 during this same time period and will gain valuable experience working as a team.

Year 2 will establish and implement the data governance and data dictionary and review board.

Year 3 will use the data to improve human services delivery and the start of ongoing training and certification for all stakeholders.

Outcome 4 - Business Intelligence Tools

This project will depend on the K-12 SLDS project to evaluate, purchase and implement the business intelligence tools. Since the tools will not be available until year 2 of this project, year 1 will consist of gathering requirements.

Year 2 will establish the business intelligence tools available for use, Year 2 will consist of training on the tools and the start of using the tools to develop reporting for the new data.

During year 3, the build of reporting using the business intelligence tools will finish and the reports will be put into production.

Outcome 5 - Performance Measurements and Reporting

By September 2010, Montana's state education agencies will have developed shared P-20 policy goals in partnership with the legislative Education and Local Government Interim Committee. These policy goals will have objectives and accountability measures associated with each goal.

Also, during 2010, OPI will work with DPHHS to identify performance measures and reporting formats for early childhood programs and K-12.

As with the business intelligence tools, the performance measurements and reports will depend on the K-12 SLDS project to provide the tools to build the reporting, so year 1 will consist of requirements gathering.

Year 2 will include building the required reporting and year 3 will include these reports being put into production.

(d) Project Management and Governance Plan

Project Management

All phases of this project will be managed by a project manager. The project manager will report directly to the OPI Chief of Staff. The Superintendent of Public Instruction will be the project sponsor. If this grant proposal is approved, a project leadership team and project team will be formed. Representatives from each partnering agency will be included in these teams. The leadership team will be responsible for providing guidance to the project team on policy issues, defining and managing the scope of the project, managing risks, and resolving issues that may arise during the course of the project. The project team will be performing most of the hands-on work throughout the project.

There are also resources available to OPI through the Department of Administration's project management office. The department has a project management model in place which OPI has used on previous projects and has proven to be a successful tool. Included in the model are planning documents for change control management, communications, governance, issue management, project charter, risk evaluation, and a risk plan.

The Department of Administration provides oversight to all state agencies on large projects. OPI is required to provide them with a quarterly update for all major projects. The Department of Administration also assists agencies with the development and issuance of Requests for Proposal (RFPs) and offers project management training to state employees.

The following key project management activities will be implemented to ensure timely and quality task completion:

- Form the Project Leadership Team – The project leadership team will consist of at least one representative from each partnering agency. This team will work together to outline the project requirements and activities. This team will work together on policy issues, defining and managing the scope of the project, managing risks, and resolving issues that may arise during the course of the project.

- Form the Project Team – The project team will include representatives from all partnering agencies. The team will be led by the project manager and include the data warehouse DBA, business analysts and other individuals as the project dictates. The project may also have sub-teams that will handle tasks specific to one agency. These sub-teams will report to the overall project manager on a regular basis. The project team will provide regular status reports to the Project Leadership Team and follow its guidance.

- Stakeholder Input – At a minimum, the other stakeholders involved in this project will include the Office of Commissioner of Higher Education, Department of Public Health and Human Services, and the Department of Labor and Industry. The OPI will work together with these agencies to obtain stakeholder input and gather data with respect to the project.

- Work Plan Development and Coordination –The project team will define the tasks, time requirements, costs, and responsibilities for the project. A comprehensive work plan will be developed based on this activity. Meetings will be held to evaluate and ensure

alignment of the work plans. A project management tool will be used to track activities and ensure the project stays within the project scope, is kept on time and on budget.

Governance Plan

The success of this project relies on the partnerships among OPI, state agencies, and local schools and districts throughout Montana. The project leadership team will include representatives from each partnering agency. Each agency has signed a letter of agreement which outlines their commitment to the project. (Please see the Letter of Agreement in Appendix A.) The Office of Public Instruction will take the lead role for this team.

The Office of Public Instruction will have the authority for the project and will be responsible for overseeing the project throughout the grant. The partnering agencies include Office of Commissioner of Higher Education, Department of Public Health and Human Services, and the Department of Labor and Industry. The project manager, project leadership team and project teams will keep this project on task and will be responsible for ensuring the grant outcomes are met.

Included in the budget narrative of this grant is a chart that lists staff from each of the partnering agencies who will work with the Office of Public Instruction on the grant. The OPI will track expenditures for this project.

The Office of Public Instruction will contract with a business analyst to help develop the training plan and provide technical assistance to users. Training on specific business intelligence tools will also be provided to agency personnel who will use the tools on a regular basis. SIF training will also be provided to IT staff as needed. Training on the use of the electronic student transcripts will be provided to the LEAs, OPI, and the Montana University System staff.

Input of teachers and other educators will be obtained and utilized throughout this project. In mid-November 2009, Madalyn Quinlan, Chief of Staff for the Office of Public Instruction, presented information to the state Board of Education on this IES grant proposal. The Board of Education is composed of the Board of Regents of Higher Education and the Board of Public Education. It is responsible for long-range planning, and for coordinating and evaluating policies and programs for the state's educational systems. The Board of Education is chaired by the Governor, who along with the Superintendent of Public Instruction and the Commissioner of Higher Education, serves as ex-officio members of the board.

In her presentation to the Board of Education, Ms. Quinlan covered each of the data system capabilities and elements that Montana has committed to developing in applying for this grant. She also reviewed the current status of P-20 information systems and their ability to meet the requirements of the grant. Finally, she described the objectives of Montana's grant proposal and the gaps that the proposal is intended to address. Representatives from OCHE and DPHHS were available at the presentation and responded to questions from board members.

A group of K-12 statewide education associations meets monthly is Helena. This group, known informally as the Ed Forum, includes representatives from the MEA-MFT (teachers union), the Montana School Boards Association, School Administrators of Montana, Montana Rural Education Association, AA School Districts, Montana Small Schools Alliance, Montana School Business Officials, and the Montana Indian Education Association. The OPI has briefed the Ed

Forum on this proposal twice this fall. A number of the members of Ed Forum were also present at the Board of Education meeting in November for the P-20 longitudinal data system grant agenda item.

In order to ensure the ongoing involvement of diverse stakeholders, a K-12 educator advisory group that is already in place will continue its advisory role for the purposes of this project. This group will help in defining the requirements for the electronic transcript objective of this grant and in determining the web reporting tools for users of P-20 data. The School Advisory Group of Educators (SAGE) is currently comprised of 11 members that represent schools of various sizes, geographical locations, resources and current approaches in terms of student information systems. Current members are identified in the following table.

Current Members of the School Advisory Group of Educators (SAGE)

Name/Role	**Representation**
Barbara Ridgway, Technology Informative Services Administrator	Helena Public Schools
Jule Walker, Superintendent	Plevna K-12 Schools
Teri Wing, Superintendent	Somers Elementary
Cal Johnson, Superintendent	Belt Public Schools
Jerry Scott, County Supt	Carbon County Supt.
Scott Dubbs, HS Principal	Lewistown Public Schools
Linda Sims, Data Manager	Missoula Public Schools
Ron LaFerriere, Coop Director	Gallatin/Madison Coop
Emilie Anderson, Sp. Ed. Director	Target Range SD; President of Council of Administrators of Special Education
Jules Waber, Co. Superintendent	Powell County Supt.
John Daugherty, Chief Information Officer	Dept of Corrections

From the spring of 2008 through the fall of 2009, the University of Montana-Missoula led an Electronic Transcript Pilot Project with involvement from two of the state's 4-year postsecondary institutions, the UM-Helena College of Technology (2-year postsecondary), and five Montana high schools. The Governor's Office, Office of Public Instruction and Office of the Commissioner of Higher Education also collaborated in the project. The project objectives were to investigate the applicability and utility of electronic transcripts in documenting individual student records at the P-12 and higher education level; 2) to assess the seamlessness between the P-12 and higher education record; 3) to investigate the logistics of loading, hosting and accessing

the electronic transcript record; and 4) to determine the ability for mining the database for information that will ultimately improve student success. The project is completed and a final report with recommendations was presented to the Board of Regents in November 2009. It will be important to consult the participants in the transcript project, to benefit from the lessons learned, as we move forward with this grant proposal.

The Office of Public Instruction and its partners will continue to reach out to and consult with key stakeholder groups as this project progresses. Input from these stakeholders is critical to ensuring that the systems that are developed meet the needs of stakeholders both for the near and long-term. Frequent communications regarding the status of this project will be important for keeping stakeholders involved.

(e) Staffing

Portions of 13 full-time staff positions at the Office of Public Instruction, Office of Commissioner of Higher Education, Department of Labor and Industry, and Department of Public Health and Human Services will be provided as in-kind support to this grant.

This proposal includes funding 13.18 FTE for the three year grant period for a total cost of $3,292,426. A complete breakdown of salaries and benefits for each year of the grant proposal is shown in Budget Form ED524 of this grant application.

Resumes for all key staff identified for this project are included in Appendix B. A summary of the staffing needs is explained below.

IT Staff

Unless otherwise noted, the IT staff at OPI will be supervised by the OPI Information Technology Services Division Administrator, Jim Gietzen with assistance from the OPI Information Technology Services, Systems Development Bureau Chief, Thomas Dougherty.

One Programmer – This is a new FTE located at the Office of Commissioner of Higher Education and will be supervised by Tyler Trevor, Associate Commissioner for Planning, Technology, and Communication. This position will be responsible for developing connections from the transcript repository to higher education enterprise information system (EIS); assisting with data integration into the EIS and data warehouse; developing linkages back to OPI and workforce data warehouses; creating electronic dashboard/feedback reports.

Two Computer Systems Analysts – These two positions will be new FTE located at the Office of Public Instruction. One position will be responsible ensure data integrity and assist with developing data validations during design phase. This position will also be responsible for developing web presence, reports, queries, and business intelligence tools. The second position will be responsible for all system interfaces including SIF implementation.

Database Administrator – This is an existing position at OPI. This position will be the primary resource to define data sets and develop documentation for the P-20 Data Warehouse. The database administrator will insure data integrity and assist with developing data validations during design phase. This resource will also be responsible for changes to the data warehouse on an ongoing basis.

Two Business Analysts – These two positions will report to the Measurement & Accountability Division Administrator and will focus on the data audit aspect of the project. One individual will serve as the Data Resource Administrator and develop and formalize the data standards and definitions. This individual will also provide training on the standards to the LEAs. The second individual will validate the accuracy of the data submitted by the LEAs and other partnering agencies and perform the on-site data audits.

One Business Analyst at DPHHS who will develop requirements and manage the implementation of data sharing capabilities needed for the P-20 data warehouse. This person will ensure that the warehouse meets enterprise and DPHHS objectives and will act as a liaison between OPI and department program staff responsible for training DPHHS stakeholders.

Information Systems Security Officer – This position is a Computer Systems Analyst who will oversee the independent information security audit as well as manage and execute an ongoing process to review, assess and address security issues and risks on an ongoing basis. Due to the highly sensitive nature of the data being collected and shared as part of this project, an ongoing review of security will be a necessity

The Department of Labor and Industry will use one full-time FTE for the 3 years of the grant to complete programming for data transfers between its MTWorks program and SQL. This person will also assist with the conversion of data from MTWorks to OPI. A programmer from the Unemployment Insurance Division at the Department of Labor and Industry will furnish a wage file each quarter to the OPI so that this data may be used for reporting. These positions will be supervised by the division administrators within their respective divisions.

Interagency P-20 Data Governance Workgroup Staff

The Interagency P-20 Data Governance Workgroup staff identified in this section will report directly to Sue Mohr, who is the division administrator for the Measurement and Accountability Division at OPI. Ms. Mohr reports directly to the Chief of Staff, Madalyn Quinlan.

Dan Villa, the Governor's Education Policy Advisor and Pat Wise, Economic Development Specialist from the Governor's Office will assist with oversight of policy development, establishment of interagency P-20 data governance workgroup, and communication among all stakeholders.

The Department of Labor and Industry will assign a management level representative and its chief economist to participate in this workgroup. The roles are described in the budget narrative section of this grant proposal.

Two Business Analysts – The business analyst positions will be new FTE located at OPI. These positions will play key roles in the interagency workgroup. One position will be the lead for the workgroup and manage the meeting schedules and agendas. This position will be responsible for development and implementation of the overall data governance plan, which will include processes to ensure the grant's strategic objectives are met with respect to data governance, data quality processes and policies, the statewide training plan, and the statewide data certification process. The second position sets up training plan for agencies including stakeholders and field staff, identifies and convenes data stewards on a regular basis, staffs the Data Steward Council, develops governance certification program, assists with training stakeholders and agency staff,

coordinates development of meta data, data dictionary and use of data, creates documentation for business processes around data and documents business rules, develops data audit process, develops data request process.

Lawyer – This will be a new position at OPI. The lawyer will be responsible for development of policies for the P-20 Longitudinal Data System, helping with the interpretation of applicable state and federal laws and applying those laws to new policies developed for system. The purpose of this position is to assist agencies and work with legal staff from participating agencies as they determine how and in what acceptable format each dataset can be shared in the longitudinal data system. For example, the lawyer will determine how long data can be retained based on each agency's law and policy. The lawyer will also assist with ensuring that data is collected and stored in accordance with each agency's federal oversight and audit regulations. The lawyer will also assist with the development of the data request process, data audit process to ensure that those processes are in accordance with law and regulatory requirements. This position will serve on the data governance team.

The Department of Public Health and Human Services will also need to designate one of its legal staff for 20 hours per quarter for the 1st three quarters at $93 for a total of $5400. This position would assistance with data governance and security laws, policies, and practices.

Operations Research Analyst – This is an existing position at OPI. This position will provide knowledge about SEA operations and data systems; assists business analyst with defining business roles and processes, mapping data and defining data elements, participates in data governance team. This position will work closely to establish data audit and validation checking processes for the SEA and the LEA's ensuring that those processes are incorporated into the processes adopted for the other participating agencies.

Consultants

In addition to the positions listed above, 10 consultants will be hired to assist with this project. The complete cost breakdown is located in the Budget Narrative section of this grant application. The consultants needed are listed below.

Project Manager – Project managers have been difficult to hire within state government agencies. Therefore, we feel the need to contract this position out for the duration of the project. The project manager will be located at OPI and will oversee the project from conception through implementation. This person will develop the project plans, budget, and timelines, work with OPI's existing project manager to learn state government business processes and state contract management and negotiation processes. The project manager will also work closely with the Department of Administration who is responsible for oversight of major projects within state government. Dick Clark, the State of Montana CIO, will provide strategic direction and assist in the coordination between the different agency information technology personnel.

Enterprise Information System (EIS) Vendor – This vendor will work directly with staff at the Office of Commissioner of Higher Education (OCHE) and be supervised by Tyler Trevor, Associate Commissioner for Planning, Technology, and Communication. The vendor will help with data integration; add high school course table to the current information system; integrate

high school transcript data with advising system; assist with data export programming necessary to integrate information into operational data store.

Data Warehouse Sustainability Contract – This contractor will work directly for Tyler Trevor at OCHE and help with data conversion and programming tasks.

Business Analyst Consultant – This consultant will work directly with project staff at OPI and the OPI Project manager to develop documentation on the project. The consultant will assist with the development of the business requirements needed to develop the RFP for the electronic transcript system and assist with writing and evaluating the RFP. This position will report directly to the OPI Project Manager.

Two Interface Programmers will be hired to develop a number of methods to contribute data to the P-20 data warehouse. Due to the number of trading partners and the inability to dictate a standard interface, a number of interface techniques may have to be developed. Additionally, a mechanism to match student data between contributing systems will need to be developed.

DLI will hire a consultant to assist them with the data conversion of its Oracle-based MTWorks system to OPI's system.

DPHHS will use contracted resources for business intelligence tools consulting. The costs associated with this contract will include a BI report developer, application specialist, architect/project manager, and a project executive.

DPHHS will use its existing contractor for the CCUBS system to upgrade its system from Oracle 6i to 10g and to create a system application for Best Beginnings STARS to Quality Program.

Independent Information Security Assessment Consultant – Due to the highly sensitive nature of the data that will be housed in the P-20 data warehouse, the OPI feels that an independent review of security is warranted. The OPI will hire a consultant to review and analyze the level of vulnerabilities on the networks and servers involved in the P-20 data warehouse and to evaluate network security architecture, policies, and processes. This effort will also review and assess the strength of the policies and procedures in place to restrict access to sensitive data. The review will encompass the OPI as well as the Office of Commissioner of Higher Education, the Department of Health and Human Services and the Department of Labor and Industry.

The OPI will contract with a national transcript service to make available information related to a student's transcript to qualified recipients in a secure manner.

Project Narrative

Project Narrative - Appendix A, Optional Attachments

Attachment 1:
Title: **Appendix A** Pages: **13** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Appendix A.pdf**

Montana Office of Public Instruction

Appendix A

OPI Grant Timeline

es 7-1-10 start												
		7/1/2010	10/1/2010	1/1/2011	4/1/2011	7/1/2011	10/1/2011	1/1/2012	4/1/2012	7/1/2012	10/1/2012	1/1/2013
	Responsible Party	**Yr1Q1**	**Yr1Q2**	**Yr1Q3**	**Yr1Q4**	**Yr2Q1**	**Yr2Q2**	**Yr2Q3**	**Yr2Q4**	**Yr3Q1**	**Yr3Q2**	**Yr3Q3**
t Team (prerequisite to all												
RFP for PM and BA assistance	OPI	X										
te RFP and engage resources	OPI		X									
ise for additions to staff including Computer System analysts, mmers	OPI, DLI, OCHE	X										
ddditions to staff	OPI, DLI, OCHE		X									
o Early Childhood, Post Secondary &												
op links to other systems												
mine Strategy to link identifiers gst all systems	OPI, OCHE, DPHHS, DLI	X	X	X								
haring policy development	OPI, OCHE, DPHHS, DLI			X	X	X						
op dataset to be traded with each n	OPI, OCHE, DPHHS, DLI			X	X							
on transport mechanism and ncy	OPI, OCHE, DPHHS, DLI				X							
dataset and transport	OPI, OCHE, DPHHS, DLI					X	X	X	X			
	OPI, OCHE, DPHHS, DLI								X	X		
trading data	OPI, OCHE, DPHHS, DLI										X	
endent Information Security ment												

es 7-1-10 start												
		7/1/2010	10/1/2010	1/1/2011	4/1/2011	7/1/2011	10/1/2011	1/1/2012	4/1/2012	7/1/2012	10/1/2012	1/1/2013
	Responsible Party	**Yr1Q1**	**Yr1Q2**	**Yr1Q3**	**Yr1Q4**	**Yr2Q1**	**Yr2Q2**	**Yr2Q3**	**Yr2Q4**	**Yr3Q1**	**Yr3Q2**	**Yr3Q3**
RFP for Assessment	OPI				X							
te RFP and award contract	OPI					X						
m assessment	OPI						X					
finding of assessment	OPI							X				
de CCUBS from Oracle 6i to 10g												
is	DPHHS	X										
	DPHHS	X	X									
opment	DPHHS		X	X								
	DPHHS			X								
ment	DPHHS				X							
ment Best Beginnings STARS to y Technology												
is	DPHHS	X										
	DPHHS	X										
	DPHHS		X									
	DPHHS		X									
ment	DPHHS			X								
ctronic Student Repository for K-12												
ish Repository												
dataset	OPI			X	X							
Hardware requirements	OPI		X									
are requirements due to the DW t	OPI SLDS project			X								
ailable for modification (DW t)	OPI SLDS project						X					
TL/DW	OPI							X	X			
ata	OPI								X	X		
duction	OPI										X	

es 7-1-10 start												
		7/1/2010	10/1/2010	1/1/2011	4/1/2011	7/1/2011	10/1/2011	1/1/2012	4/1/2012	7/1/2012	10/1/2012	1/1/2013
	Responsible Party	**Yr1Q1**	**Yr1Q2**	**Yr1Q3**	**Yr1Q4**	**Yr2Q1**	**Yr2Q2**	**Yr2Q3**	**Yr2Q4**	**Yr3Q1**	**Yr3Q2**	**Yr3Q3**
op Connections from transcript ouse to higher ed	OCHE				X	X						
ntegration within Higher ED	OCHE						X	X	X			
link to OCHE	OPI, OCHE									X	X	
op SIF Implementation												
requirments for SIF	OPI						X					
RFP for SIF solution	OPI							X				
te RFP and award contract	OPI								X			
n SIF tools	OPI								X			
ment solution	OPI									X	X	
ish link to a national transcript tory												
requirements for a national tory	OPI						X					
RFP	OPI							X				
te RFP and award contract	OPI								X			
link to national vendor	OPI									X	X	
r data to repository on an ongoing	OPI										X	X
op training program for LEAs and stakeholders	OPI										X	X
ct Training	OPI											X
w Data Audit processes and dures												
v existing process and procedures	OPI								X			
ment new procedures based on gs	OPI									X		
m audits	OPI										X	X

es 7-1-10 start												
		7/1/2010	10/1/2010	1/1/2011	4/1/2011	7/1/2011	10/1/2011	1/1/2012	4/1/2012	7/1/2012	10/1/2012	1/1/2013
	Responsible Party	**Yr1Q1**	**Yr1Q2**	**Yr1Q3**	**Yr1Q4**	**Yr2Q1**	**Yr2Q2**	**Yr2Q3**	**Yr2Q4**	**Yr3Q1**	**Yr3Q2**	**Yr3Q3**
cy P-20 Data Governance												
overnance process and legal review	OPI, OCHE, DPHHS, DLI	X	X	X								
on of statewide Interagency P20 askforce	OPI, OCHE, DPHHS, DLI		X									
sh taskforce, appointments, staff	OPI, OCHE, DPHHS, DLI				X	X						
p data governance plan/assign data rds and create data steward roup	OPI, OCHE, DPHHS, DLI						X					
mentation of plan; metadata/data ary	OPI, OCHE, DPHHS, DLI							X	X			
mentation of data request process, Data Request Review Board; y processes	OPI, OCHE, DPHHS, DLI						X	X				
p business rules, document data rds, calendars, exchange protocols	OPI, OCHE, DPHHS, DLI							X	X			
Data Quality campaign:Building a e of data quality SW workshops	OPI, OCHE, DPHHS, DLI								X	X		
Data to improve human services ry	OPI, OCHE, DPHHS, DLI									X	X	X
ertification training and workshops	OPI, OCHE, DPHHS, DLI											X
ntelligence Tools												
Requirements	OPI				X	X						
available (DW Project)	OPI SLDS project						X					

es 7-1-10 start												
		7/1/2010	10/1/2010	1/1/2011	4/1/2011	7/1/2011	10/1/2011	1/1/2012	4/1/2012	7/1/2012	10/1/2012	1/1/2013
	Responsible Party	**Yr1Q1**	**Yr1Q2**	**Yr1Q3**	**Yr1Q4**	**Yr2Q1**	**Yr2Q2**	**Yr2Q3**	**Yr2Q4**	**Yr3Q1**	**Yr3Q2**	**Yr3Q3**
ct BI tool training for new partners	OPI						X					
p reports, dashboards etc	OPI							X	X	X		
S BI and ETL process Analysis	DPHHS					X						
S BI and ETL process Design	DPHHS					X						
S BI and ETL process Build	DPHHS						X					
S BI and ETL process Test	DPHHS						X	X				
S BI and ETL process Implement	DPHHS							X				
nce Measurements and Reporting												
Requirements	OPI				X	X		X	X			
Reports	OPI								X	X		
Reports/Dashboard for Higher Ed	OCHE							X	X			
Rreports for DLI	DLI							X	X	X		
web site to post reports	OPI								X	X	X	

Project Outcomes as they relate to the Required Data System Capabilities & Elements					
	Project Outcomes				
	1	2	3	4	5
Required Data System Capabilities					
Enable states to examine student progress and outcomes over time, including student's preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces	X	X	0	X	X
Facilitate and enable the exchange of data among agencies so that data may be used to inform policy and practice	X	X	X	X	X
Link student data with teachers and enable the matching of teachers and students so that a given student may be matched with the particular teachers primarily responsible for providing instruction in various subjects	0	X	0	0	0
Enable the matching of teachers with information about their certification and teacher preparation programs	X	0	0	0	0
Enable data to be easily generated for continuous improvement and decision-making, including timely reporting to parents, teachers and school leaders on achievement of their students	X	X	0	X	X
Ensure the quality and integrity of the data contained in the system	0	0	X	X	0
Provide the state with the ability to meet the reporting requirements for the USED, especially for the State Fiscal Stabilization Funds and EDFacts	X	X	0	X	0
Required Data System Elements					
A unique statewide student identifier that does not permit a student to be individually identified by users of the system;	COMPLETED				
Student-level enrollment, demographic, and program participation information	COMPLETED				
Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs	X	X	0	0	0
The capacity to communicate with higher education data systems	X	X	X	0	X
A State data audit system assessing data quality, validity, and reliability	0	0	X	0	0
Yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965	COMPLETED				
Information on students not tested by grade and subject	COMPLETED				
A teacher identifier system with the ability to match teachers to students	TO BE COMPLETED W/ STATE FUNDING				
Student-level transcript information, including information on courses completed and grades earned	0	X	0	X	0
Student-level college readiness test scores.	X	0	0	0	0
Information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework	X	X	0	0	0
Information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework	X	X	0	0	0

Letter of Agreement

Montana Office of Public Instruction
Office of the Commissioner of Higher Education
Department of Public Health and Human Services
Department of Labor and Industry

I. Purpose

The purpose of this Letter of Agreement (LOA), hereinafter referred to as LOA, is to define the relationship and responsibilities of the following state agencies, which have joined together to submit an application to the U.S. Department of Education from Montana for the P-20 Longitudinal Data Systems grant.

- The Office of Public Instruction, hereinafter referred to as the OPI.
- The Office of the Commissioner of Higher Education, hereinafter referred to as OCHE.
- The Department of Public Health and Human Services, hereinafter referred to as DPHHS.
- The Department of Labor and Industry, hereinafter referred to as DLI.

II. Background

The Institute of Education Sciences within the U.S. Department of Education has announced a $245 million grant opportunity for states to apply for assistance for the development of P-20 statewide longitudinal data systems. Funding provided under this competition is to be used for statewide data systems that, in addition to P-12 data, also include postsecondary and workforce information. Grants will support the development and implementation of P-20 systems that have the capacity to link individual student data across time and across databases, including matching teachers to students, promote interoperability for easy matching and linking of data across institutions and States, and protect student privacy consistent with applicable privacy protection laws. This additional one-time funding provided by the American Recovery and Reinvestment Act will permit grantee State educational agencies (SEAs) to accelerate the development of their data systems, to include not only data related to K-12 education, but also data on preschool and postsecondary education and workforce information, and to promote linkages with other data systems where such linkages may inform education policy and practice.

III. Objectives

The objectives of the grant application are to:

(1) Establish data linkages among state agency partners to connect from early childhood to K-12 to post-secondary and the workforce;
(2) Create an electronic student transcript repository for K-12 education;
(3) Create a Interagency P-20 Data Governance Workgroup;
(4) Implement business intelligence and web reporting tools for users of P-20 data; and
(5) Develop a system of P-20 performance measurement and reporting.

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PR/Award # R384A100026

IV. Roles and Responsibilities

The Office of Public Instruction is the lead agency for the IES grant application. Each participating agency has contributed to the development of the project proposal by identifying objectives for the agency, resource needs, and cost estimates.

Each participating agency agrees to:

1. Designate staff to participate in the project leadership team and the project team for the IES grant;
2. Designate an agency representative to serve on the Interagency P-20 Data Governance Workgroup;
3. Contribute to the development of the project management documents, requests for proposals, and vendor contracts;
4. Provide status reports to the project team as required by the team;
5. Provide information regarding the laws and policies which govern the management of the data proposed to be linked through this project;
6. Comply with state and federal laws and policies regarding the protection of personally identifiable data; and
7. Provide office space and agency support for any staff positions funded by the IES grant.

V. Contacts

Individuals listed below are contacts for this LOA.

CONTACT – Office of Public Instruction

Name:	Madalyn Quinlan, Chief of Staff
Address:	P.O. Box 202501
City, State & Zip:	Helena, MT 59620-2501
Phone:	(406) 444-3168

CONTACT – Office of the Commissioner of Higher Education

Name:	Tyler Trevor, Associate Commissioner for Planning, Technology and Communication
Address:	P.O. Box 203201
City, State & Zip:	Helena, MT 59620-3201
Phone:	(406) 444-0307

CONTACT – Department of Public Health and Human Services

Name:	Hank Hudson, Economic Security Services Branch Manager
Address:	111 Sanders, P.O. Box 202925
City, State & Zip:	Helena, MT 59620-2925
Phone:	(406) 444- 3470

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PR/Award # R384A100026

CONTACT – Department of Labor and Industry

Name: Todd Younkin, Research and Analysis Bureau Chief
Address: P.O. Box 1728
City, State & Zip: Helena, MT 59620-1728
Phone: (406) 444-3293

By: _____ Date: 11-30-09
Denise Juneau, Superintendent of Public Instruction

By: _____ Date: 11-30-09
Sheila Stearns, Commissioner of Higher Education

By: _____ Date: 11-30-09
Anna Whiting Sorrell, Director
Department of Public Health and Human Services

By: _____ Date: 1 Dec 09
Keith Kelly, Director
Department of Labor and Industry

PR/Award # R384A100026

Montana P-20 Longitudinal Data System
Boards and Councils with an Interest in Project Outcomes

Economic Security and Wellness

- Montana Early Childhood Advisory Council
- Career Development Advisory Council – Early Childhood Project at MSU-Bozeman
- Early Learning Council
- Early Childhood Partnership for Professional Development
- Systems of Care
- Food Security Council

Post-secondary Education

- Office of the Commissioners of Higher Education
- Board of Regents
- Montana Association of College Registrars and Admissions Officers (MACRAO)

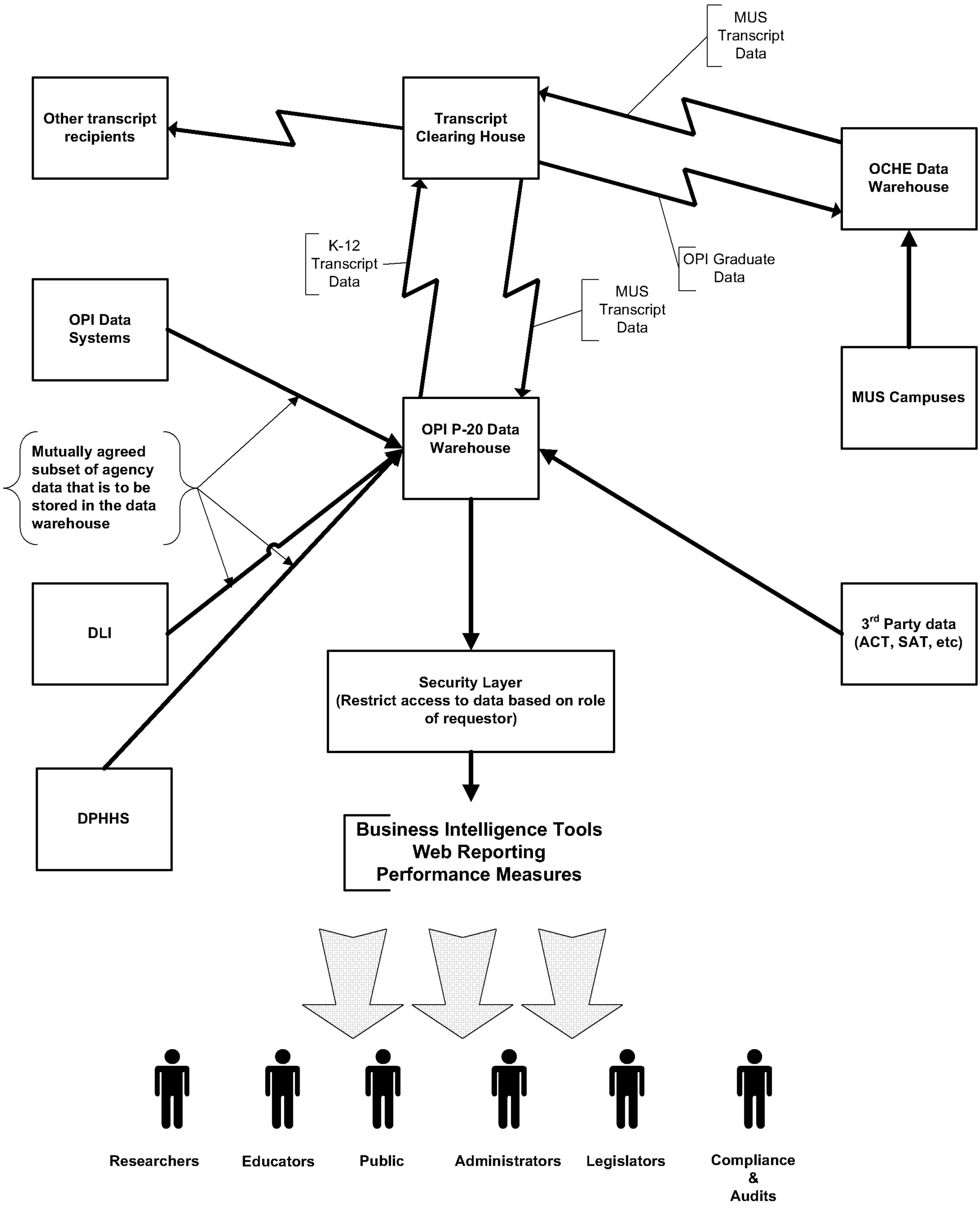
K-12 Education

- Office of Public Instruction
- Board of Public Education
- Kindergarten to College work group
- Big Sky Pathways
- Adult Basic Education

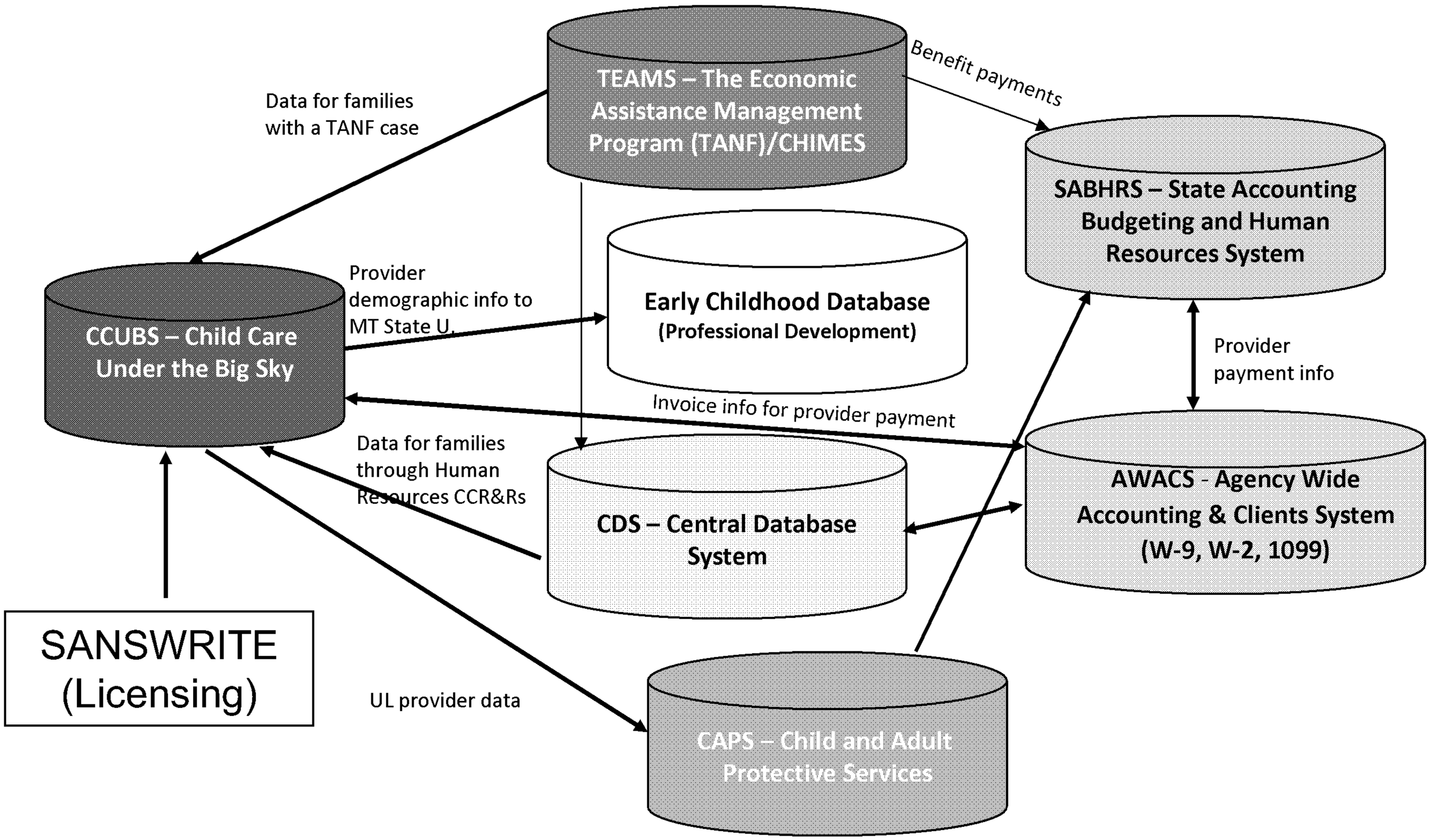
Economic and Workforce Development

- Montana Career Information System
- State Workforce Investment Group
- State Agency Management Team
- Bureau of Business and Economic Research (University of Montana)
- Center for Applied Economic Research (MSU – Billings)

Proposed P-20 Data Warehouse Linkages



Montana Child Care System



Project Narrative

Project Narrative - Appendix B Resumes of Key Personnel

Attachment 1:
Title: **Appendix B** Pages: **27** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Appendix B.pdf**

Montana Office of Public Instruction

Appendix B

Linda Atwood

(b)(6)

Employment

Montana Office of Public Instruction (OPI) **1990-Current**

- Research and Analysis Data Manager, Measurement and Accountability Division, 2004-Current
    - I verify, clean and report non-fiscal education data to the federal government, state legislature, office staff and the general public. This requires high level skills in using tools to query OPI databases to ensure the accuracy of reports and to perform data analysis.
    - I have extensive knowledge of the OPI databases, including data collection techniques, database design, system file structures, data definitions and security policies.
    - I participate on project teams that design and implement data collection systems. Team roles include clarifying office policy, formulating business rules, designing database system requirements, writing Requests for Proposals, testing the database systems, and training end-users at the school districts.
    - I am the Montana representative to the National Forum on Education Statistics and the Non-fiscal Data Coordinator for the National Center for Education Statistics.
    - I work with our Montana EDFacts Coordinator. We submit Montana data files to the United States Department of Education using the Education Data Exchange Network (EDEN) system.

- Applications Coach, Software Development Bureau, 1998 – 2004
    - I taught OPI staff classes in Microsoft Excel and Access.
    - I offered one-on-one assistance with querying and problem-solving related to database projects to agency staff.
    - I participated on software development teams, including tracking requirements, writing software user manuals for both school district and OPI staff use, and documenting business rules.
    - I calculated grant allocations to school districts, including allocations for the grants in the Federal Consolidated Application.
    - I did software development.
    - I worked with a wide range of personnel across the agency and am familiar with major office data collection systems.

- Fiscal Officer, School Finance Division, 1995-1998
    - I collected, reviewed, cleaned and analyzed electronic submissions of annual school district financial statements.
    - I monitored and reviewed school district audits from independent auditors.
    - Data I managed was reported to the United States Department of Education, the National Center for Education Statistics, the Montana state legislature, tax payers, and the general public. This information was also used for state education funding.
    - I provided annual training to school district personnel in both how to complete the financial reports required by our office for content and how to submit the data electronically using software developed by Office of Public Instruction staff.
    - I was a member of the software development team that manages the school financial data system. The team implements annual changes, tests the system, writes user manuals, and trains school district staff.

- Transportation Specialist, School Finance Division, 1993-1995
  I administered all aspects of the state program for reimbursement to school districts for pupil transportation.

- Word Processing/Data Processing, Operations Division, 1990-1993
  I entered data into numerous OPI data systems.

Other Employment **1979-1990**

- Marketing Secretary, Keystone Resort, Keystone, Colorado, 1988-1989
- Research Secretary, Computing Research Laboratory, Electrical Engineering and Computer Science Department, University of Michigan, Ann Arbor, Michigan, 1986-1988
- Part-time Secretary, Center for Quantitative Science, University of Washington, 1984-1985
- Tour Guide, Challis National Forest, Challis, Idaho, Summer of 1984
- Computer Programmer (1985-86) and Accounting Clerk (1982-84), Helsell, Fetterman, Martin, Todd and Hokanson Law Firm, Seattle, Washington
- Data Entry Clerk, Industrial Testing, Inc., Eugene, Oregon 1979-1981

Education

- B.A. Business Administration, University of Washington, Seattle, Washington, 1985
- University of Oregon, Eugene, Oregon, 1979-1981

My degree included courses in accounting, management, economics, finance, operations management, business communications, business law, calculus, discrete mathematics and computer science

Professional Development

- Attendance at National Center for Education Statistics, Management Information Services conferences (six conferences) and STATS DC conferences (seven conferences)
- Attendance at Edfacts/Eden Training Workshops
- Project Management Class, State of Montana, Information Technology Services Division
- Conducting Effective Surveys Workshop, Helena, Montana
- Week long courses in Microsoft SQL 7, Access 2000 Programming, Dreamweaver web design, from consultants hired by the Office of Public Instruction
- Oracle Development, and Visual Basic, Helena College of Technology
- Introduction to Arcview Workshop, Montana GIS Conference
- Introduction to Logic, Philosophy Course, Washtenaw Community College, Ann Arbor, Michigan

Awards

2007 – I received the **Governor's Award for Excellence in State Government**. The award letter stated, Linda resolves "complex problems requiring a high level of expertise and skill to assemble and analyze education data from many different sources and formats. She is sought out by her colleagues as a problem solver and a collaborator who understands how technical systems interact and consistently designs solutions that work for all."

2004 - Office of Public Instruction, **Incentive Award**, for exceptional work in supporting our in-house programmers with my work on software development teams.

1995 - Office of Public Instruction, **Incentive Award**, for streamlining the paperwork involved in the school transportation reimbursement process.

RONALD P. BALDWIN
(b)(6)
RBaldwin@mt.gov

SKILLS SUMMARY

More than 26 years of experience in information technology, managing, designing and developing IT solutions for business and government. Of this experience, 17 years are in the state government arena with 12 years focused on health and human service programs. Areas of experience and skills include: Executive Management, Program Management, Project Management, Policy Development, Financial Management, Enterprise Architecture, Staff Supervision and Management, Systems Design and Development, Database Administration, Systems Integration, Security Assessment, and Business Process Reengineering.

EMPLOYMENT HISTORY

Department CIO and Division Administrator Jan 2009 – Present
State of Montana
Dept. of Public Health & Human Services
Technology Services Division
Helena, MT

- Chief Information Officer for the Department of Public Health and Human Services responsible for overseeing the management, implementation, and operations of information systems and infrastructure that directly support programs promoting the health and welfare of Montana citizens.
- Establish and implement strategic IT goals and objectives for the department. Oversee the development of the agency IT Plan in cooperation with the State CIO. Prepare and present legislative testimony in support of bills that fund and regulate Department IT operations and projects.
- Direct the design, development, maintenance, and operations major computer systems and enterprise architecture for the department. This includes $120 million of long-range IT appropriations for the replacement of legacy systems.
- As Administrator of the Technology Services Division, manage $40 million budget and more than 70 division employees and contractors. Recommend policies, standards, procedures, and rules regarding IT systems and databases.
- Promote and utilize best practices and techniques in information technology (IT) management. Ensure department compliance with applicable state and federal laws and regulations. Oversee the creation of federal advance planning documents necessary to secure federal funding for system development projects.

Executive Project Manager & Enterprise Architect Mar 2008 – Jan 2009
State of Montana
Dept. of Public Health & Human Services
Technology Services Division
Helena, MT

- Executive Project Manager responsible for $60 million of system replacement projects. Project management activities include planning, financial management, and status/dashboard reporting.
- Responsible for executive level communications that reach beyond Department boundaries, including the State CIO, the Governor's office, the Legislative Finance Committee, and key federal program partners (e.g. ACF, CMS, and FNS) that provide oversight and federal participation funding for major human service systems.
- Provide professional, management, and technical guidance to project managers and business analysts utilizing national standards such as the Project Management Body of Knowledge (PMBOK).
- Assisted in the creation of the Project Management Bureau (PMB), the department's first Project Management Office (PMO) which provides project management and

business analyst expertise to IT projects department-wide. Developed strategy and mission for the bureau; interviewed and hired project managers and business analysts.

- Create advance planning documents for federal agencies that participate in the funding and implementation of systems that support human service programs. Also develop Statements of Work and Request for Proposals that procure planning and development vendors for department IT projects.
- Enterprise Architect (EA) responsible for the implementation of a department-wide IT architecture that will create the foundation for maximum interoperability between systems and programs. Developed an EA strategy and vision that has been presented to DPHHS management, the State CIO, and the Governor's Office of Budget and Program Planning (OBPP).
- Authored agency biennial IT Plan outlining Department objectives and goals for information technology policy, infrastructure, systems and initiatives.

Program Manager Sep 1996 - Mar 2008
Northrop Grumman Information Technology
Helena, MT

- Senior Program Manager for State and Local Solutions. In this position, responsible for business development and management of a $10 million state and local public health business. Designed, developed and implemented numerous IT applications with a focus on integrated health and justice systems. States where systems were deployed include Montana, Delaware, Maine, and California.
- Engaged as external project manager to provide project management consulting and support to the Technology Services Division of the Montana Department of Public Health and Human Services for the Combined Healthcare Information and Montana Eligibility System (CHIMES), a new Medicaid eligibility system being developed for the Human and Community Services Division.
- Wrote Security Plans for new DPHHS system projects that follow industry standards (NIST) and complied with ITSD requirements for the submission of such plans in order to release funding. These plans were the first of their kind and were used by ITSD as a model for use by other departments in the State of Montana.
- Provided services directly to state governments, combining subject matter expertise in health and justice with project management, business analysis, systems integration, and systems development.

Systems Consultant Aug 2002 - Nov 2002
Baldwin & Associates, LLC
Helena, MT

- Consultant contracted to conduct a comprehensive Health Insurance Portability and Accountability Act (HIPAA) assessment for South Dakota's Department of Health.
- Facilitated Joint Application Design sessions to document current processes, systems, data and standards. Analyzed impact points and produced a formal report detailing gaps with recommendations for compliance and risk mitigation.

Applications Development Supervisor Jan 1992 - Sep 1996
State of Montana
Dept. of Administration
Information Services Division
Helena, MT

- Responsible for supervising and managing the development and support of several large mission-critical systems including the Public Employees' Retirement System, the Warrant Writing System, and the Corporations and Uniform Commercial Code Systems for the Secretary of State's Office. Administrative responsibilities included

hiring, mentoring and training programmer/analyst staff.

- Provided technical and management leadership in support of a centralized professional staff responsible for providing system design and programming services for state agencies that required the development and maintenance of mission critical business application software.
- Project management activities included resource estimating, costing, monitoring, and reporting. Used automated project management software.
- Provided professional, management, and technical guidance and training to junior project team members. Reviewed the work of subordinate analysts and programmers to ensure quality, conformance to standards, and progress in expertise and career growth.

Project Lead/Database Administrator Apr 1987 - Dec 1991
San Diego Gas & Electric
San Diego, CA

- Project Lead for a multi-million dollar Geographic Facilities Information System (GFIS) containing both graphic and attribute data needed to generate scale maps of electric, gas and land facilities. The applications supported by this system included circuit analysis, facilities management and map digitizing.
- Designed and maintained large mission-critical IDMS databases including the Customer Information System and the Debt Collection System.
- Developed and conducted training in IDMS development tools and concepts for programming and analyst staff. Provided technical consulting to programmers, assisting with complex database programming tasks and problem resolution. Reviewed programs for standards and performance acceptability.

Programmer/Analyst May 1982 - Sep 1986
Tenneco West
Bakersfield, CA

- Performed systems analysis and programming for several large mission critical business systems. Maintained Payroll system responsible for this issuance of 50,000 checks per week to farm workers across the state.
- Member of team that implemented new General Ledger requiring a complete revision of accounting structures and processes. Designed and developed new IDMS-based Land Contracts system.
- Trained junior level programmers and interviewed prospective programmers. Member of ADS/O standards committee.

EDUCATION

B.S. in Biology w/minor in Chemistry
San Diego State University
A.S. in Computer Science
Coleman College

CERTIFICATIONS

- Project Management Professional (PMP) Certification
- IT Service Management Foundation (based on ITIL) Certification
- Six Sigma Green Belt Certification

Sharon M. Burt
Database Administrator
Montana Office of Public Instruction
(406) 444-1625

QUALIFICATIONS:

System Administration. Extensive experience in the tasks necessary for configuring and maintaining a system for day-to-day operation, including allocating hardware and software resources; and troubleshooting user, operator, and system errors. Experience in Local Area Network (LAN) support. System/database administration training on Microsoft SQL Server, Prime mainframe and a Sun workstation.

Database design. Designed and maintained several databases, using fourth generation programming languages to produce the necessary programs to run each. Efficient in relational database software and Structured Query Language (SQL) for database design and utilization.

Programming languages. Knowledge of many software packages, including Microsoft SQL Server, Visual Basic, Visual Basic.Net, Microsoft Access, Turbo Pascal, Turbo C++, various communication and graphic packages.

Geographical Information Systems (GIS). Knowledge of Arc/Info and ArcView GIS systems. Created many different coverages, worked with Triangulated Irregular Network (TIN), and built libraries. Knowledge of various Global Position System (GPS) units and software.

EDUCATION:
Montana College of Mineral Science and Technology, 1992, Butte, MT
Bachelor of Science in Computer Science/Information Systems.
GPA 3.319; (Graduated with Honors).

EMPLOYMENT:
Office of Public Instruction (2001 – present).
Database Administrator (March 2001 – present) Responsible for the system/database administration duties on three Microsoft SQL Servers. Monitor the database servers over time to indicate trends in performance and utilization. Also serve as a programmer/analyst creating applications for a multi-user environment. Currently serving as the EdFact Coordinator. This position is responsible for all the data reporting to the US Department of Education.

Montana Department of Environmental Quality (1993 - 2001).
Information Services Section Manger (August 1997 – March 2001) Supervisor of the Information Services Section. Managed the activities of individuals and teams who design, develop, implement and managed information systems that served the needs of the Remediation Division. Served as the divisions' local area network liaison to Centralizes Services Division and was responsible for general support of automated data management and office automation equipment.

Database Specialist (July 1993 – August 1993) Responsible for the Remediation Division's information systems. Duties include design, development, implementation and management of the information systems. Provide user support and serve various additional office automation needs, including the Local Area Network. Create and maintain several complex database systems. Designed and maintain the division's web page.

Montana Bureau of Mines and Geology (1984 - 1993).

Assistant Manager Computer Services (1991 - July 1993) Worked as acting manager as manager worked only 3/4 time. Responsible for the database system management, maintaining and updating many databases. System Administrator of the Prime computer system and Sun workstation. Assisted staff to identify and define computer needs. Trained Bureau staff in proper uses of computer equipment. Lead worker in many GIS projects, responsible for obtaining and creating GIS coverages to produce maps for project require-ments.

RICHARD (DICK) B. CLARK

Home Address: (b)(6)

Work Address: PO Box 200113
125 N. Roberts
Mitchell Building
Helena, MT 59620-1001

Phone: (406) 444-2777
E-mail: dclark@mt.gov

(b)(6)

Education:

1987 **Master of Business Administration**
University of Montana - Missoula, MT.

1976 **Bachelor of Arts, History**
Northern Montana College - Havre, MT.

Experience:

2005 - Present: **Chief Information Officer State of Montana** and **Administrator of the Information Technology Services Division** of the Department of Administration

As the CIO for the State of Montana, I serve as the chief policy advisor on statewide information technology issues and am responsible for the development and implementation of the state strategic information technology plan and the enforcement of the Montana Information Technology Act, ensuring that the development of information technology resources of the state are conducted in an organized, deliberative, and cost-effective manner.

As the Information Technology Service Division Administrator, I oversee the operation an organization with 170 employees that has an operation budget of $35M and the mission of providing shared information technology services at the enterprise level that support the needs of the state and citizens of Montana.

2002 - 2005: **Chief Information Officer**, Montana Department of Transportation. I managed an organization of 55 employees, including 4 management level positions, with a mission of providing centralize information technology support, to include operations, applications, and project management, to the department of

transportation, including remote sites throughout the State of Montana.

1994 - 2002: **Engineering Manager**, Montana Department of Transportation. I managed organization(s) responsible for providing non-engineering human resources and other non-engineering operational support including but not limited to budgetary, policy, procedural, management system project management and strategic business plans as well as maintaining and providing Transportation Research and Material Information System engineering information related to all aspects of paving operations.

1976 - 1994: Employed by Montana Department of Transportation (MDT), serving in Havre, Missoula and Helena. Rose through the ranks and held several management and supervisory positions within the Maintenance, Equipment, and Engineering Divisions.

Awards:

1998 AASHTO Standing Committee on Quality Pathfinder Award – Pavement Management Implementation

Professional Memberships:

Member - National Association of State Chief Information Officers (NASCIO)

Committees and Board Membership: (Present)

Member - State of Montana Information Technology Board

Chair - Montana Statewide Interoperability Executive Council

Chair - Carroll College Civil Engineering Advisory Board (Helena Montana)

Co-Chair - Montana Electronic Records Information Committee (Co-Chair with Montana Secretary of State)

Member - Governors Economic Security Advisory Council

Member - Governor's Kindergarten to College Committee

Committees and Board Membership: (Past)

Past Member – Transportation Research Board Committee A2B01 Committee on Pavement Management Systems

Past Member – Montana State University Civil Engineering Advisory Board

Richard (Dick) Clark
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125 N. Roberts, Mitchell Building, Helena, MT 59620-1001

Past Member – Montana Partnership for Highway Quality (NPHQ) Partnering Committee

Past Member - Advisory Panel, NCHRP – Project 20-5 – Topic 27-12, "Road User and Mitigation Costs in Highway Pavement Projects"

Past Member - FHWA Demo 108A – Pavement Management Analysis: Multi-year Prioritization

Past Member - FHWA Demo 108B – Pavement Management Analysis: Engineering Analysis

Past Member - FHWA Demo 115A – Application of Risk Analysis to Life Cycle Costing

Key Note Addresses:

Speaker - 2001 Midwestern Pavement Preservation Partnership Conference, Grand Rapids, MI

Speaker - 1999 Midwest Pavement Management Conference, Madison, WI – "Integrating Pavement Management and Maintenance Management"

Speaker - 1998 Midwest Pavement Preservation and Forum for the Future Workshop, Kansas City, MO – "Integrating Pavement Management and Maintenance Management"

Speaker - 1999 ITE Conference, Helena, MT – "Components of Montana Pavement Management System"

Speaker - 1997 Montana Asphalt Conference, Bozeman, MT – "Tracking Systems to Increase the Life of Pavements"

Moderator - 2000 Transportation Research Board, Washington, D.C. "Economic and User Considerations in Pavement Management"

Moderator - 1997 National Pavement Management Conference, New Orleans, LA – Financial Analysis Group

Richard (Dick) Clark
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125 N. Roberts, Mitchell Building, Helena, MT 59620-1001

Objective: To provide information systems that improve the quality of life for Montana citizens by providing educational opportunities, creating quality jobs and a favorable business climate, improving government, and protecting individual privacy of information contained within information technology systems.

References: Brian Schweitzer – Governor of Montana

David Ewer – Budget Director, State of Montana

Doug Robinson – Executive Director, National Association of State Chief Information officers

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tdougherty@mt.gov

Thomas "Tab" Dougherty

Objective

To continue and further my career as an IT management professional.

Experience

9/2009 – Present Montana Office of Public Instruction Helena, MT

Systems Development Bureau Chief

- Manage a staff of 7 Computer Systems Analysts and one Database Administrator.
- Participate in planning and advisory teams for topics such as School Staffing, Identity Management, Service Oriented Architecture, etc.
- Plan for and implement new technologies for the OPI.

10/2008 – 9/2009 Hewlett-Packard Company Houston, TX

Project Manager

- Managed quality assurance and testing activities on HP servers and switches.
- Determined project scope, including hardware, software, and testing resources, as well as budget.
- Met with several different stakeholder groups to plan projects and ensure schedule and deliverables are met.
- Reported testing results on a weekly basis to key team members, or as requested.
- Closely tracked the status of 5 - 7 projects at any one time using internal tracking tools as well as Microsoft Project and SharePoint.

10/2002 – 10/2008 Hewlett-Packard CompanyCollege Station, T

Project Manager & Sales Manager

- Manage ~30 projects, generating revenue of over $2 million annually.
- Scope projects and plan resources for computer hardware and software related projects.
- Interact with project leads to ensure deadlines/deliverables are met.
- Generate cost estimates and submit financial transactions.
- Visit the customers we work with on a monthly basis to conduct

planning and review the project and budget.
- Perform interviews to hire new employees.

6/2000 – 10/2002 Compaq Computer Corp.College Station, TX

Project Supervisor

- Work with the project manager to scope new projects.
- Supervise 5-8 projects at any given time.
- Fully understand the technical details the projects that I am supervising.
- Manage a team of 5-12 employees.
- Ensure that projects remain within budget and scope.
- Report status back to project sponsors.
- Conduct interviews and training for new employees.
- Conduct annual performance reviews.

1/1998 – 6/2000 Compaq Computer Corp. Bryan, TX

Lab Supervisor

- Manage 3,000+ pieces of inventory, including shipping & receiving.
- Maintain 2 working labs, including network and phone maintenance.
- Assist employees with computer issues and hardware repairs.
- Maintain a pool of 40 productivity machines.
- Manage a Microsoft Exchange server as well as a file server for the entire facility, which includes tape backups of both servers.

Education

2002 – 2005 University of Phoenix Online Phoenix, AZ

- M.B.A., Business Administration

1993 – 1998 Texas A&M University College Station, TX

- B.S., Computer Science.

Interests

Computers, fitness, outdoor activities, music production

Other

- Proficient with Microsoft Office suite as well as MS Project.
- Received my EMT-Basic Certification in January, 2009.
- Volunteered at the Emergency Department of the College Station Medical Center from July 2008 – January 2009.

James J. Gietzen

(b)(6)

PROFILE:

Information Technology Manager with extensive experience in the financial services industry. Strong program and project management background with experience in application development management, team building and coaching. Proven successful in the development of technology solutions that enable strategic business objectives. Consummate team player that strives to meet the goals of the organization. Selected areas of strength include:

Program Management:	Proven track record in managing project portfolios in excess of $15MM per annum. Disciplined in the project lifecycle including; developing project scope, defining required resources, negotiating contractual arrangements, estimating time and cost of projects and monitoring project performance.
Strategic Planning:	Able to assess current technology, understand business strategies and work with business unit managers and executive teams to develop technology plans, priorities and budgets.
Applications Development:	Experienced with the management of large development teams in financial systems. Strong problem solving, communication and interpersonal skills have provided the ability to effectively oversee the on time and on budget delivery of complex systems that meet the client's needs.
Client Relationship Building:	Able to develop solid relationships with internal and external clients in order to assure the delivery of systems that achieve business objectives.

PROFESSIONAL EXPERIENCE:

STATE OF MONTANA, Helena, Montana **Current**
Systems Development Bureau Chief, Office of Public Instruction (11/2007 – 1/2009)
IT Division Administrator, Office of Public Instruction (1/2009 – present)
Directs daily operations of the IT division, including application development, network services and web development; analyzing workflow, establishing priorities, developing standards, policies, and information technology plans, providing for data security and control, disaster recovery, and setting deadlines. Works with private consultants and systems development service providers to arrange contracts for services, provide information, and to serve as contractual liaison for the office. Develops materials for and solicits "Requests for Proposals" from private contractors, evaluates proposals, negotiates terms, awards, and monitors contracts for large, complex systems design and development projects.

ABN AMRO NORTH AMERICA, Chicago, Illinois **1980 – 2007**
LaSalle Bank NA and North American subsidiaries of ABN AMRO Bank NV, a top 20 global bank with assets of more than $1 trillion and 105,000 employees in 53 countries. Standard Federal Bank was acquired by LaSalle Bank in 1997.

Senior Program Manager, First Vice President,
LaSalle Bank, Chicago, Illinois (06/2006 – 06/2007)
Responsible for Personal Financial Services program with annual IT budget of $15MM. Provided leadership and day-to-day management of a team of up to 24 project managers including hiring, resource assignments, prioritization, issues escalation, customer communication and senior management reports. Worked with onshore and off-shore partners to effectively staff and deliver projects on time and on budget.

- Successfully reorganized a team that had been without a manager for six months. Established stricter adherence to process and procedure which resulted in improved project performance and monitoring.
- Met the challenge of maximizing resource allocations during a period of budget cuts without impacting project performance.
- Used ability to navigate in a highly matrixed organization to drive quick escalation and resolution of issues which improved customer service and kept projects on time and within budgets.

First Vice President, LaSalle Bank, Chicago, Illinois (09/2005 – 06/2006)
Interim role responsible for overseeing the transfer of existing policies and procedures to newly selected off-shore partners. Worked with multiple development, support and infrastructure teams to identify a comprehensive list of existing processes and validate the accuracy via detailed reviews. Supervised the updating of the documentation, insured that processes were understood by the new team and that roles and responsibilities were well defined.

Client Executive, First Vice President, LaSalle Bank, Troy, Michigan (05/2003 – 09/2005)
Represented all IT services to the ABN AMRO Mortgage Group (AAMG), a division of LaSalle Bank and a top 10 national wholesale mortgage lender. Managed an annual IT project budget of $22MM. Provided leadership and management to a team located in five metropolitan areas across three states that included six Account Managers and up to twenty-four matrixed project managers and their development teams. Responsibilities included: internal client liaison, project portfolio management, demand planning for six month book of business, process improvement initiatives, financial management and reporting.

- Hired and trained original Account Management team and established all reporting and processes required for successful client support.
- Worked closely with the president of AAMG to monitor project budgets and successfully increased and decreased monthly run rate in accordance with organizational business plans.
- Was an early adopter of using offshore resources to complement in-house staff in order to adequately meet the business' changing demands.

PMO Manager, Vice President, LaSalle Bank, Troy, Michigan (02/2000 – 05/2003)
Managed the AAMG PMO with annual project budget of $15MM. Led team of 12 project managers. Responsible for project lifecycle management including financials, requirements, issue resolution, testing, and implementation. Management accountability included oversight

of the PMO budget, matrixed project teams, applicant interviews, hiring, resource allocation and team organization at multiple job sites.

- Assumed control of a PMO that had an underutilized project methodology and a poor track record of controlling projects. As part of a global initiative, volunteered to be the pilot area to learn the Capability Maturity Model (CMM) methodologies and successfully instituted CMM based processes that resulted in higher project predictability.
- Instituted regular meetings with senior management in the client organization to insure project performance was clearly understood.
- Built relationships and cross-functional teamwork that enabled the integration of the PMO fully into the IT team.

Development Manager, Vice President,
Standard Federal Bank, Troy, Michigan (1984 – 02/2000)
Oversaw support and development of mortgage systems for number one single-family mortgage lender in Michigan. Managed application development teams that grew in size and complexity. Responsible for day to day management of the team including hiring, resource assignments, prioritization, problem solving, strategic planning, internal client relationship management and reporting to senior management. Direct report to the CIO.

- Built development/support team from a small group of individuals to a large, multi-disciplined team able to handle multiple, complex projects concurrently.
- Oversaw mortgage portion of 12 bank mergers, multiple loan sales and the creation of processes and programs to sell loans into the secondary market.

EDUCATION:
George Washington University
Masters Certificate in Project Management, 2002
Oakland University, Rochester Michigan
Bachelor of Science, Computer Information Sciences, 1980

Sue Mohr

(b)(6)

QUALIFICATIONS:

Over 29 years of combined experience in leadership, program management, research, analysis, planning, design, implementation, and evaluation for programs involved in education, labor market data including unemployment insurance data, workforce and financial data used for policy-making and decision-making by leaders and legislators. Broad and deep understanding of uses of data between agencies specifically between education, K-16 and workforce training, labor market and unemployment insurance data. Experienced in analysis and oversight/governance of data in multiple departments including Office of Public Instruction, Unemployment Insurance wage data, labor market data, apprenticeship data and employment and training data.

EDUCATION and TRAINING:

Utah State University: Bachelor of Science, emphasis on statistical survey and analysis, economics public policy
Series 7 and 66 NASD financial licenses for financial analyst.

EMPLOYMENT:

Division Administrator, Measurement and Accountability, Montana Office of Public Instruction (2009 – present)
Responsible for the development and implementation of the State's Student Information System. Responsible for the development of the accountability tracking system for calculating school performance in Montana. Give direction, guidance and support in data collections and analyses for federal and state reporting requirements. This includes reporting for student disaggregated enrollment, highly qualified teacher information, Common Core of Data and EDEN files. Oversee other reporting requirements and analyses in collections such as home-school information, graduation, completion, drop-out and assessment data.

Direct the implementation of Montana's participation in the NAEP assessment where Montana students can demonstrate their achievement levels in the "Nation's Report Card." Participated on national boards and advisory committees, presentations delivered at national meetings, advisory positions to state education agencies, in-depth studies and understandings of state assessments, designing, overseeing and carrying out analyses in various ways, equating studies, validity studies, sampling plans and statistical analyses.

Education Savings Analyst, MT Guaranteed Student Loan Program, Office of the Commissioner of Higher Education (2007 – 2009)

Administration of statewide program, Liaison between state and program managers. Oversee all aspects of Montana's 529 College Savings Program including mutual funds, fixed funds. Manage and compare performance of products compared to other similar funds using Morningstar model portfolios. Developed partnerships to market college plans, develop and deploy marketing plan and develop and conduct presentations.

Financial Analyst, DA Davidson, Helena Branch (2006 to 2007)
Conduct all aspects of building a successful financial planning practice within a three person team.
Provide financial plans, portfolio construction and analysis, development of proposals, presentations to clients. Presentations to women's groups, high school students, 4-H members at the state convention.

VP, Operations, Workforce One (Broward County Employment and Training), Fort Lauderdale, FL (2005)
Oversee three one stop workforce centers encompassing all of Broward county. Set up job fairs for worker shortages in the aftermath of Hurricane Wilma; set up emergency welfare payment offices throughout the county after Hurricane Wilma threw thousands of workers into temporary unemployment.

Executive Director, Montana Job Training Partnership, Helena, MT 1990 to 2005
Nonprofit corporation responsible for all local delivery of workforce programs in Montana including administration of over $8 to $10 million of federal grants ensuring that funds are used in accordance with state and federal policy and according to the direction of local workforce investment boards. Arrange, schedule and manage multiple grants (50 grants in 100 locations across Montana). Ensured performance requirements were met, conducted audits and compliance reviews and ensured that all grant conditions were met by grantees. Deep understanding of how to use labor market data to develop talent pipelines between growing and emerging industry and workers through development of training programs including programs offered in 2 year college of technology and 4 year university programs.
Instituted first real time reporting system accessible to grantees, state and federal managers.
Member of numerous national workforce policy councils.

Administrator, Employment and Policy Division, MT Dept of Labor and Industry, 1986 to 1990.
Responsible for Research and Analysis Bureau providing labor market data, unemployment insurance statistics, prevailing wage data and wage and employment data. Conducted occupational and industrial wage and employment research studies. Responsible for state job training bureau overseeing local job training program delivery as Governor's liaison. Assisted at the state level with using labor market data to provide improved workforce training to Montanans.

Administrator, Labor Standards Division, MT DOLI, 1985 to 1986
Responsible for state administration of minimum wage and overtime law, prevailing wage and child labor law and the state apprenticeship program. Instituted first local prevailing wage system which used wage information reported to the Department by region of the state.

Bureau Chief, Unemployment Insurance Tax Bureau, MDOLI, 1983 to 1985.
Administered state unemployment tax program collecting $65 M annually of UI taxes from 25,000 employers. Oversight of employer audits, and collections. Supervised 40 employees and fifteen field staff across Montana who worked directly with employers. Developed first coordinated approach in which Mt Dept of Revenue, Unemployment Insurance, Workers Comp and the IRS cooperated in audits of known fraudulent employers.

Management and Budget Analyst, MDOLI, 1977 to 1982.
Conducted research studies, researched and helped write unemployment law re-write which resulted in an actuarially sound tax system and put the UI trust fund into solvency where it has remained ever since. After helping pass legislation, I was asked to implement the tax system with the assistance of programming staff to ensure the new re-write followed the requirements of the new law.
Budget analyst for the MDOLI ensuring that budgets were developed and maintained according to state and federal law.

Memberships and Achievements:

Member, U.S. Dept of Labor Enterprise Council developing quality initiatives for state and local job training councils.
President, MT Women's Capital Fund a microenterprise lending organization.
Secretary, National Workforce Association advocating for local delivery of workforce programs at the national and congressional level.
Member of National Association of Counties Employment and Labor Steering Committee
Member, MT Human Service Coalition and MT Nonprofit Association
Member, Rural High Skills Consortia
Member, Helena Business and Professional Women
Past board member, Helena Eaglemount
Past Member, Women Investment Professionals at D.A. Davidson

Received on Quality Lab Grant for US Department of Labor Denver Region and formed first Montana Council for Workforce Quality.
Organized two of the largest US Dept of Labor Quality Academies in the US in Billings and Coeur d'Alene involving participants from the northwest US plus Wyoming, North and South Dakota.
Successful recipient of first three year grant to serve severely disabled in remote parts of Montana.
Testified before Congress regarding challenges of operating job training programs in frontier areas.

CURRICULUM VITAE

JAMIE PALAGI

(b)(6)

EDUCATION

Master of Arts Degree, Human Services-Leadership, Magna Cum Laude, Concordia University, St. Paul, Minnesota. Date of Graduation, June 2005.

Bachelor of Science Degree, Human Development-Family Science, Montana State University, Bozeman, Montana. Date of Graduation, May 1996.

KEY COMPETENCIES

PROGRAM MANAGEMENT: Management of $40 Million annually through various programs, including CCDF, Head Start/State Collaboration, ECCS, CACFP. Experience in contract management and strategic planning for statewide system development. Experience in providing direct services to unique populations within a health care setting; youth services and employee-assisted, intergenerational, early childhood programming. Experience in staff development and training; program planning and implementation. Experience in non profit board development; community collaboration and involvement; development of program specific marketing plans and public relations; fiscal management and strategic planning. Experience with national accreditation processes. Experience in Fund Development and Grant Writing; Public/Private Partnerships.

HUMAN RESOURCE MANAGEMENT: Recruitment and selection of qualified staff; development of position descriptions; knowledge of and compliance with state (Montana) and federal employment law and requirements; active participant in organizational culture development and change initiatives; planned, developed, and implemented training curriculum for clinical staff development consistent with facility strategic plan; personnel management and staff direction; experience with limited benefit administration, focus on developing innovative employee wellness and safety programs; work place violence prevention programming and safety education committee work. Knowledge of and practice in organizational development, organizational communication, leadership, and complex adaptive systems.

YOUTH & FAMILY SERVICES: Skilled in observation and assessment of staff and client behaviors; facilitator of various support groups; personal and professional experience with foster/adoptive care; working with at risk youth and families; practice and implement developmentally appropriate practices; child care and supervision; infant, toddler, preschool and school age programming and curriculum development; involvement and facilitation of proactive adolescent programming; knowledge of expected growth and development;

PROFESSIONAL EXPERIENCE

UNIVERSITY OF MONTANA-WESTERN
Helena, MT August 2008- current
Adjunct Instructor

Teach Early Childhood Coursework through the outreach program for students enrolled in the Associates degree program. Serve as a coach for students enrolled in the Bachelor's degree program.

STATE OF MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES
Helena, MT February 2006- current
Early Childhood Services Bureau Chief
Direct responsibility for Child Care & Development Fund Block Grant, Child and Adult Care Food Program, Early Childhood Comprehensive Systems Grant, and the Head Start State Collaboration Grant. Responsible for strategic visioning and planning, system development and leadership for Montana's Early Childhood Services including Child Care Resource & Referral Agencies, Higher Education facilities, direct service providers, Montana Child Care Resource & Referral Network, Early Childhood Consultation, QRIS, Professional Development systems, Subsidy administration, Quality initiatives, and program compliance. Responsive to Montana's Executive branch initiatives and participating in the legislative process through an Executive Planning Process and legislative hearings, bills, and laws.

ST. JOHN'S LUTHERAN MINISTRIES January 2001-February 2006
Billings, Montana
Human Resources Coordinator
Primary responsibilities include recruitment, staff selection and retention support; active participant in organizational change initiative, including strategic planning input, developing and implementing staff training and education curriculum for clinical staff; safety and wellness initiatives for employees; participant on Safety committee and assigned sub-committees.

Director of Center for Generations
Direct and manage multi-site intergenerational, employee assisted, early childhood programs for children aged 0-12, within a long term care environment. Responsibilities include program development and management, intergenerational programming, community relations, and staff development. Program expansion includes evening child care and doubled license capacity in three years. Responsible for public relations, enrollment, NAEYC accreditation, Quality Assurance licensing compliance, CACFP compliance, department fiscal management, grant writing and administration of funds, and curriculum planning. Coordinator for community wide Vacation Bible School, serving the campus of 500 senior residents and 280 children. Chairman of annual United Way contribution program within the facility and participant in other ministries.

BEARTOOTH HOSPITAL & HEALTH CENTER January 1997-January 2001
Red Lodge, Montana
Children's Center Supervisor: Direct and manage a licensed child care center and preschool program for children aged 2-12, including off-site school age care. Responsible for Quality Assurance licensing compliance and CACFP compliance. Responsibilities include personnel management. Responsible for capital campaign resulting in $200,000 raised for a 3500 square feet building and land donation, public relations, enrollment, budgets, fundraising, grant writing, program development and curriculum planning.

Madalyn Quinlan

(b)(6)

QUALIFICATIONS: Over 14 years of experience in a leadership position in the state education agency, supervising the agency's communication functions, legislative agenda, personnel, and student assessment functions; and overseeing and providing management support for several of OPI's data collection and reporting efforts.

EDUCATION:
B.A. Public Administration, Georgetown University, Washington, DC, 1979.
Masters Program in Economics, University of Montana, Missoula, Montana, 1982-1984. 2 years full-time in graduate program. All but dissertation.

EMPLOYMENT:
Office of Public Instruction (1995-present), Chief of Staff
Management and leadership responsibilities in the Superintendent's Office include the coordination of OPI's legislative agenda, including requests for K-12 funding; communicating with schools and the public about Montana's K-12 education system; overseeing and providing management support for several of OPI's data collection and reporting efforts; supervising the personnel functions of the state office; and working closely with the agency's State Assessment Director. Supervises the Measurement and Accountability Division within the OPI.

Areas of expertise include the school funding in Montana and how it works, taxation to support public education, and the fiscal and non-fiscal data collection and management efforts of the Office of Public Instruction.

Represents the state education agency on the Education Information Management Advisory Consortium (EIMAC) of the Council of Chief State School Officers. Serves as chair of EIMAC for 2009-10.

Represented the state education agency on the National Forum of Education Statistics from 2001-2009.

Participated in task forces that developed the following National Forum for Education Statistics publications:

- *Accounting for Every Student: A Taxonomy for Standard Student Exit Codes*, April 2006
- *Managing an Identity Crisis: Forum Guide to Implementing New Federal Race and Ethnicity Categories*, September 2008

Office of Public Instruction (1990-1995), Revenue Analyst
Analyzed data and authored reports on all aspects of school funding to education policy makers. Shared a leadership role in the development of OPI's legislative proposals. Staffed the State Superintendent on issues related to the State Land Board.

Office of the Legislative Fiscal Analyst (1984-1990), Associate Analyst
Prepared revenue estimates for state general fund revenues and revenues to the school equalization aid account; staffed legislative committees on school funding and long range building; built her understanding of school funding, taxation, and the legislative process.

Tyler Trevor

(b)(6) • ttrevor@montana.edu

BACKGROUND INFORMATION

Tyler Trevor is the Associate Commissioner for Planning, Technology, and Communication in Montana's Office of the Commissioner of Higher Education. A Montana native, Tyler recently returned to the state to direct institutional research for the Montana University System and has since been appointed to the associate commissioner position. Prior to returning to Montana, he held the position of associate vice chancellor for academic and student affairs in the Nevada System of Higher Education. Tyler received his political science degree in 1992 and a sociology degree in 1994 from Montana State University. In 1995, he earned a master's degree in applied sociology from Humboldt State University in California.

PROFESSIONAL EXPERIENCE

Associate Commissioner for Planning, Technology, and Communications June 2007 to Present
Montana University System, Office of the Commissioner of Higher Ed., Helena, MT

Responsibilities: The Associate Commissioner is charged with the following responsibilities:

- Develop and maintain system-wide information resources, including data warehouse and institutional research & analysis functions;
- Facilitate the on-going development of a system-wide strategic plan;
- Develop strategies for the university system's media relations and communications with various constituent groups and the general public; and
- Work collaboratively with campus representatives to coordinate the university system's governmental relations

Director of Institutional Information & Research 2006 to 2007
Montana University System, Office of the Commissioner of Higher Ed., Helena, MT

Associate Vice Chancellor for Academic & Student Affairs 2003 to 2006
Nevada System of Higher Education, System Administration, Reno, NV

Director of Institutional Research and Assessment 1997 to 2003
Truckee Meadows Community College, Reno, NV

Coordinator of Institutional Research and Analysis 1995 to 1979
College of the Siskiyous, Weed, CA

EDUCATION

Master of Arts, Applied Sociology – Research Methods 1994 to 1995
Humboldt State University, Arcata, CA

Bachelor of Science, Sociology 1993 to 1994
Montana State University, Bozeman, MT

Bachelor of Science, Political Science 1988 to 1992
Montana State University, Bozeman, MT

Dan Villa – Education Policy Advisor
Governor Brian Schweitzer

Dan Villa joined the Schweitzer Administration in June 2009 as the Governor's Education Policy Advisor. Dan's experience includes service on the Anaconda School Board, the Montana School Board Association Board of Directors and on the Certification Standards and Practices Advisory Council to the Montana Board of Public Education. Dan was elected to the Montana House of Representatives in 2004 and served for three sessions before relinquishing his seat prior to his appointment to the Governor's staff. While in the legislature, Villa was appointed to the business and labor, education, agriculture, and appropriations committees, was elected Democratic Caucus Leader and chaired the Joint Appropriations Subcommittee on Education and the House Rules Committee. Villa has also served on the Deer Lodge County Planning Board and the Anaconda Local Development Corporation Board of Directors.

Pat Wise
Economic Development Specialist
Office of the Governor
State Capitol
Helena, MT 59620
406-444-5472

Education

Montana State University, BA Political Science, History
University of Montana, School of Law

Employment Highlights

- Economic Development Specialist, Governor's Office. State policy development focused on workforce education and the coordination of state training and education systems.

- Labor Director, Montana Nurses Ass. Provided collective bargaining, mediation and arbitration services to nurses in 21 local units around the state.

- Executive Director, California Labor Federation's Workforce and Economic Development department. Administered statewide education and training training program that advanced High Roads Partnerships providing skilled workers and training to employers throughout California.

- Midwest Regional Coordinator, AFL-CIO Working for America Institute. Facilitated the development of state and regional partnerships between public programs, national labor /management committees, employers and organized labor to benefit dislocated workers in the 13 state region.

- Director of Project Challenge: Work Again, a statewide dislocated workers program administered by the Montana State AFL-CIO.

- Councilor, CETA-funded at-risk youth program, Helena MT, 1981.

Project Narrative

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

Attachment 1:
Title: **Appendix C** Pages: **4** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Appendix C.pdf**

Montana Office of Public Instruction Appendix C
Current Status of State's Longitudinal Data System

Capabilities & Data Elements	Current Status	Outcomes
Examine student progress and outcomes over time, including student's preparation to meet demands of postsecondary education, workforce, and Armed Forces	K-12 linkages in 2009 IES grant; P-20 to be addressed in this grant.	Montana's 2009 IES grant establishes a data warehouse with appropriate K-12 linkages with a completion date of 6/30/13. Data will be migrated from numerous legacy OPI data systems into the data warehouse. Proposed Activity: Project Outcome 1 – Create Data Linkages Establish the P-20 Data Governance Workgroup. Develop a plan for P-20 data warehouse which adds linkages for: •early childhood using data from DPHHS, •workforce and apprenticeships using data from MT DOLI •unemployment insurance wage record information from MT DOLI •higher education using data from OCHE and MT university system Develop and implement data sharing agreements with these organizations for sharing appropriate student data. Develop tools to enhance data driven decision making at all system levels.
Exchange of data among agencies and institutions with the state so data may be used to inform policy and practice	AIM student information system and current 2009 IES grant will provide this for SEA & LEAs; Other agencies to be addressed in this grant.	AIM student information system provides interoperability for records exchange between schools and districts and the OPI. The 2009 IES grant will use a data warehouse and BI tools to gather data elements from other legacy systems throughout OPI. Staffing and resources will be employed to address technical issues involved with interoperability, SIF and data architecture. Once this is completed, OPI will be able to facilitate interoperability among systems and agencies. Proposed Activity: Project Outcome 1 – Create Data Linkages Ensure that the expansion of the data warehouse is able to provide interoperability between other state agencies. Adopt national and international data element standards to increase data interoperability with external stakeholders. Use of the National Transcript Center is one example of an approach to ensure that transcripts from all Montana students can be accessed by colleges anywhere in the U.S. Similar approaches will be explored to ensure interoperability for all data exchanges.
Link student data with teachers	Implementation of school staffing project currently in progress and activities in this Grant.	Staffing Project currently in progress: • Implement common statewide course codes to use in data collections from districts. • Increase scope of information collected under unique staff id regarding teacher preparation programs, experience, and continuing education • Strengthen links between the educator and staff licensing and the school accreditation processes including the ability to identify characteristics of highly qualified and highly successful teachers Proposed Activity: Project Outcome 1 – Create Data Linkages Create student transcript repository and tools for transcript exchange with other P-20 agencies
Teacher certification, preparation data	Implementation of School Staffing Project currently in progress.	Develop an educator information portal to manage certification and professional development information by tracking teachers from their preparation programs within Montana through staff assignments at Montana schools, their continuing education programs and into the retirement system.

Capabilities & Data Elements	Current Status	Outcomes
Data generated for continuous improvement and decision-making and timely reporting to parents, teachers, and school leaders on achievement of their students	2009 IES Grant Additional activities in this grant.	2009 IES grant will develop a blueprint to be the basis for organizing longitudinal data on each student including development of growth models for tracking individual and school progress using multiple measures which provides the foundation for tracking educational achievements of students from K-12. Proposed Activity: Project Outcome 4 - Implement Business Intelligence Tools Implementation of an effective business intelligence (BI) tool and decision support environment. Assess, prioritize and deliver BI solutions to stakeholders. Provide training and professional development so that administrators and teachers can effectively access and use the information appropriately. Provide timely, accurate and user friendly dissemination of data, reports and analyses to parents, students, teacher, schools, administrators, state and local elected officials. Include dashboards and interactive query tools to increase data-driven decision making and federal reporting capabilities. Improve the effectiveness of the data system and of associated processes, both in their reporting and decision-support functions and periodically assess the degree to which they meet agency and stakeholder needs.
Ensure quality and integrity of data contained in the system	2009 IES Grant Additional activities in this grant.	2009 IES Grant implements Enterprise-wide Data Architecture to fully leverage the data collected throughout the OPI and enforce data integrity and quality standards. A data governance committee will also be established which defines roles for its members, creates data policies, procedures and plans to ensure data quality and integrity. A data dictionary will be written with well-defined content and common definitions for data elements, to assure the same definitions, codes and periodicity across all schools in the State at data entry points, business rules for data format, acceptable values, missing data options, and logical comparisons to prior data, automated data edit processes to verify data quality and to ensure that rules are met before allowing data into the State's data system and systems and procedures to assure correct use of the data by users and providers. Proposed Activity: Project Outcome 3 – Create P-20 Data Governance Structure Fully expand Data Governance Committee to include all stakeholders including early childhood, higher education, and workforce. Develop standards and provide leadership. Create operational governance system with updated, published data dictionary, data rules and business processes to include all stakeholders assuring common definitions, business processes and rules. Create a training and certification program for all levels of staff using the data system to ensure data quality. Hire attorney to assist with assurances that all data is handled in accordance with all agency law and regulatory requirements. Develop efficient administrative processes, infrastructure components, and policy commitments for implementing the maintenance of the statewide longitudinal data system assuring continued data collection and quality, dissemination of data and analyses results, data security and confidentiality including assurances of student privacy in automated systems, continued adequacy of hardware, software and networking capabilities.
Meet reporting requirements of Department	Completed. Under proposed grant will provide for improved processes for reporting.	2009 IES Grant will analyze existing reports and reporting requirements within OPI and assure they are met within new K12 data warehouse. Data governance implementation will help ensure all reporting is addressed. Proposed Activity: Project Outcome 4 - Implement Business Intelligence Tools Catalogue current and planned data reporting requirements for all entities. Support multiple reporting and analyses needs of all stakeholders ensuring that all reporting deadlines are met in new system. Governance model will improve the reporting process for all agencies.

Capabilities & Data Elements	Current Status	Outcomes
Unique Student Identifier	Completed in 2007	•In Fiscal Year 2007 Montana assigned unique student IDs to all public K-12 students in the state through the implementation of the Achievement in Montana (AIM) project. •In addition to the AIM student level collection, the AIM unique student identifier is currently used in other data collections: to process the statewide criterion referenced tests, English Language Proficiency tests, and used in special education, school discipline and Migrant education data collections.
Student level enrollment, demographic, and program participation information	Completed in 2007	•The AIM student information system collects demographic and enrollment records with program participation information for all public K-12 students. During the requirements gathering phase of the AIM project, extensive efforts were made to include all possible student level program collection into the AIM system. The few programs that still maintain their own student-level data collections have incorporated the AIM student ID into their collections.
Student level exit, transfer, dropout, or continuation to postsecondary institution	Completed in 2007	•The AIM student information system collects a rich set of enrollment start and end status codes that are used to track student mobility. The codes were developed based on recommendations from the National Forum on Education Statistics guide, "Accounting for Every Student, a Taxonomy for Standard Student Exit Codes." The codes have the ability to track transfers, dropouts and graduates.
Capacity to communicate with higher education data systems	Proposed grant activity	Beginning in Fiscal Year 2010 transcripts submitted from Montana public K-12 schools to Montana public higher education institutions will carry the AIM unique ID in accordance with state policy. Proposed Activity: All Project Outcomes Establish a Montana transcript repository where all high school transcript information is stored. Allow postsecondary institutions to upload high school transcripts into their administrative information systems. Incorporate high school transcript information into the MUS data warehouse and link that back to the K-12 data warehouse for purposes of analysis and reporting.
State data audit system assessing data quality, validity, and reliability	Completed. Grant activity will formalize and enhance.	Currently have ad hoc process in place to complete data review, audits and assure data integrity. Proposed activity: Project Outcome 3 – Create P-20 Data Governance Structure Propose to create data audit system which is verified by all participating state agencies. Creation of interagency data dictionary with agreed upon data elements. Develop and implement a data certification system which ensures that all individuals providing data receive instruction and certification in appropriate use and reporting of data in the field.
Yearly test records of students	Completed	OPI receives student test records from its assessment contractor, Measured Progress, Inc. These records are securely stored in OPI's production systems.

Capabilities & Data Elements	Current Status	Outcomes
Info. on students not tested by grade and subject	Completed	OPI collects this information directly from school districts at the time of testing. This information is securely stored in OPI's production system.
Teacher identifier with ability to match teachers to students	Implementation of school staffing project and activities in proposed grant.	Staffing Project currently in progress will create the ability to link between teacher and students. Unique educator licensure ID has been assigned for over 25 years. Proposed Activity: Project Outcome 1 – Create Data Linkages • Create student transcript repository and tools for transcript exchange with other P-20 agencies allowing teacher ID's to be accessed for student information beyond K-12 to P-20 and workforce.
Student level transcript information	Proposed grant activity.	Proposed Activity: Outcome 2 – Electronic Student Transcripts Create electronic student transcript repository for K-12 education. Generate year end transcript for each student at each grade level. Develop capacity to create a high school transcript to be exportable to all universities, colleges, trade schools throughout the nation.
Student level college readiness test scores	Proposed grant activity.	The Montana University System (MUS) currently collects college readiness test scores and stores them within its data system. The following scores are collected at the unit record level: ACT, SAT and the MUS Writing Assessment Test scores. Proposed Activity: Outcomes 1, 4 and 5 Develop the capacity to share information, including college readiness test scores, across agencies and to provide Business Intelligence tools that can be used to evaluate if P-12 programs have adequately prepared students for success in postsecondary education and the workforce.
Student transitions to secondary or postsecondary institutions	Proposed grant activity.	Unit record level data is collected and stored centrally for all Montana high school students matriculating in the MUS. Some of the data elements collected are: high school, district, county, graduation date. Proposed Activity: Outcome 2 – Electronic Student Transcripts
Data that provide other information to address alignment and adequate preparation for success in postsecondary education	Proposed grant activity	Proposed activity: Project Outcome 1,2, 5 The connection between students' coursework in high school and pre-K through Grade 12 and their success in college is one of the primary areas this grant proposal addresses. There is no current link between a student's high school level courses and college coursework. In order to establish a link the following steps are proposed: 1. Establish a Montana transcript repository where all high school transcript information is stored. 2. Allow MUS institutions to upload high school transcripts into their administrative information systems. 3. Incorporate high school transcript information into the MUS data warehouse where it can be stored for the purposes of analysis and reporting, as well as linked back to the K-12 data warehouse.

Project Narrative

Project Narrative - Appendix D Letters of Support

Attachment 1:
Title: **Appendix D** Pages: **8** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Appendix D.pdf**

Montana Office of Public Instruction

Appendix D

OFFICE OF THE GOVERNOR
STATE OF MONTANA

BRIAN SCHWEITZER
GOVERNOR

JOHN BOHLINGER
LT. GOVERNOR

December 2, 2009

The Honorable Denise Juneau
Superintendent of Public Instruction
PO Box 202501
Helena, Mt 59620-2501

Dear Superintendent Juneau,

I am pleased to write a letter of support for the P-20 Statewide Longitudinal Data System proposal. My office is committed to working with our education partners to develop a comprehensive statewide data system.

Montana's most precious resource is our people. A comprehensive data system will allow for the targeted use of limited resources to enhance our state's ability to work together more efficiently and effectively. The information will allow policy makers to better collect and analyze information to improve our delivery of education and workforce services.

From early childhood education to workforce development, the people of Montana must be prepared for an ever changing world. Having a world class education system which is driven by data will assist our students achieve more, our teachers do more, and our policy makers better invest in programs which our proven to work.

Thank you in advance for your support of this application.

Sincerely,

BRIAN SCWEITZER
Governor

STATE CAPITOL • P.O. BOX 200801 • HELENA, MONTANA 59620-0801
TELEPHONE: 406-444-3111 • FAX: 406-444-5529 • WEBSITE: WWW.MT.GOV

MONTANA UNIVERSITY SYSTEM
Office of the Commissioner of Higher Education

2500 N Broadway ◊ PO Box 203201 ◊ Helena, Montana 59620-3201
(406) 444-6570 ◊ FAX (406) 444-1469

October 22, 2009

To: All Concerned

On behalf of the Montana University System (MUS) and the Board of Regents, I am pleased to acknowledge and support the P-20 Statewide Longitudinal Data System proposal submitted by the Office of Public Instruction (OPI). The Montana University System and the Office of the Commissioner of Higher Education are committed to partnering with OPI to develop better, statewide data systems and we believe that this grant request is an excellent vehicle to accomplish this task.

It is critical that the P-20 educational community work together to develop robust data systems capable of linking information in order to promote informed decision making and continual quality improvement. Efforts are being made to draw links that better depict student experiences and success, not only within the educational system, but throughout Montana's workforce. This stream of information begins with K-12 data and we recognize the challenges and importance of developing a strong, multi-faceted data system that not only meets the needs of numerous school districts, but also provides the foundation for statewide research and data linkages.

The Montana University System fully supports the efforts of the Office of Public Instruction in seeking resources to improve Montana's education policymaking tools and look forward to assisting in implementation efforts if the state is fortunate enough to receive funds. We are eager to work with OPI and other statewide partners to continue the development of Montana's P-20 data system.

Sincerely

Sheila M. Stearns
Commissioner of Higher Education
Montana University System

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES

Brian Schweitzer
GOVERNOR

Anna Whiting Sorrell
DIRECTOR

STATE OF MONTANA

www.dphhs.mt.gov

PO BOX 4210
HELENA, MT 59604-4210
(406) 444-5622
FAX (406) 444-1970

November 12, 2009

Office of Public Instruction
Superintendent's Office
PO Box 202501
Helena, MT 59620-2501

Dear Superintendent Juneau:

On behalf of the Montana Department of Public Health and Human Services, I am pleased to submit a letter of support for the statewide longitudinal data systems grant application from the Montana Office of Public Instruction. The concept within this grant proposal has been discussed for many years and it is exciting to see the conceptual framework come to fruition for Montana. By strengthening our partnerships through data governance and also data linkages, we will be able to obtain longitudinal data outcomes that will inform our business and public policy practices related to services, education, and workforce development over time.

Of greatest interest to the Department of Public Health and Human Services is the goal to create strong data linkages from the early childhood years to K-12 to Post-secondary education to workforce outcomes. Being able to track trend/service data over time will enable us to see commonalities, opportunities, and program growth needs in meeting the needs of our citizens through the various service delivery models. The concept of the data warehouse as proposed will allow for accurate and timely data, business analysis and program improvement and strong decision making.

Through the Technology Services Division and the Human and Community Services Division, including the Public Assistance Bureau and the Early Childhood Services Bureau, we are pleased to be partners in this venture with the Office of Public Instruction and look forward to the good work set forth in this thoughtful proposal.

Sincerely,

Anna Whiting Sorrell
Director

e3

PR/Award # R384A100026

Montana
Department of Labor and Industry
Commissioner's Office

Governor Brian Schweitzer
Keith Kelly, Commissioner

November 13, 2009

Denise Juneau
Superintendent of Public Instruction
PO Box 202501
Helena, MT 59620-2501

Dear Ms. Juneau:

The Department of Labor and Industry supports the P-20 Statewide Longitudinal Data System proposal submitted by the Office of Public Instruction. The department is committed to working with involved partners to develop a comprehensive statewide data system.

As Montana's lead agency for workforce development, we know that workforce development truly begins with early care and education of our future workforce, and continues on through retirement. We have experience and expertise in working with data systems, including our unemployment insurance and workforce development service provider databases. We have a long history of using these and other data sources to enhance decision-making by policy makers and to evaluate and adjust our own workforce development efforts.

We look forward to assisting in implementation efforts if the state is award grant funds.

Sincerely,

Keith Kelly
Commissioner

MONTANA
Department of Commerce

Anthony J. Preite, Director

301 S. Park Ave. ★ P.O. Box 200501 ★ Helena, Montana 59620-0501
Phone: 406-841-2700 ★ Fax: 406-841-2701 ★ TDD: 406-841-2702 ★ http://commerce.mt.gov

December 1, 2009

Office of Public Instruction
Superintendent's Office
P0 Box 202501
Helena, MT 59620-2501

Dear Superintendent Juneau:

I am pleased to submit a letter of support for the statewide longitudinal data systems grant application from the Montana Office of Public Instruction. As Bureau Chief of the Census and Economic Information Center, I am keenly aware of the need for accurate longitudinal data for tracking. As a former research staffer at both the Office of Public Instruction and the Officer of Higher Education, I know exactly the value this data warehouse could provide in trying to design programs and present outcomes.

I applaud the effort of this grant to build a data systems K-12 data. Such a system provides not only the basis for tracking student experiences and success; but also for statewide research and data linkages on Montana's economy and workforce.

The Census and Economic Information Center (CEIC) is the State Data Center for Montana. I know that the Department of Commerce and CEIC are ready to assist the Office of Public Instruction staff in any way necessary to assist in creating meaningful links to Census data (population, income, poverty, age, gender) by the various geographic areas of relevance (school district, census designated place, county, statewide) to further enhance the information and provide context.

I offer my support to the Department's application. This grant will be important for all Montana.

Sincerely,

Mary Craigle
Bureau Chief, Census and Economic Information Center
Montana Department of Commerce

BRIAN SCHWEITZER, GOVERNOR

Helena Public Schools

Barbara Ridgway
Technology/Information Services Administrator

55 South Rodney Street
Helena, MT 59601
Phone: (406) 324-2006
Fax: (406) 324-2022

November 20, 2009

The Honorable Denise Juneau
Superintendent of Public Instruction
P.O. Box 202501
Helena, MT 59620-2501

Dear Superintendent Juneau:

I am pleased to submit this letter of support for the Office of Public Instruction's application for an IES State Longitudinal Data Systems grant from the U.S. Department of Education. The objectives for this grant address critical information needs necessary to support sound education policies and practices in Montana. I commend the Office of Public Instruction for working in partnership with the Office of the Commissioner of Higher Education, the Department of Public Health and Human Services, and the Department of Labor to link data from early childhood programs to K-12 to postsecondary and the workforce. At the completion of the efforts proposed in the grant application, the state education agency and its partners will have built a longitudinal data system that provides beneficial information across programs and across time.

As we work to make certain all students are successful we believe the efforts of the state to create P-20 linkages that will inform all districts about "what works" for school, college and career-readiness is critically important. The state's system will also provide a much broader context for the work and the results that we are seeing in our local school system.

I look forward to continuing to work with the Advisory Group that will assist in the definition of performance indicators and transcript objectives. As well, our District looks forward to having the tools readily at hand that allow access to the information that results from the development of the business intelligence and web reporting interface as well as the performance indicators.

The Helena Public School District is pleased to work with the Office of Public Instruction in pursuing the goals and objectives outlined in this proposal.

Thank you for pursuing this grant opportunity.

Sincerely,

Barbara Ridgway

Barbara Ridgway
Technology / Information Services Administrator

Bozeman Public Schools
404 West Main, P.O. Box 520
Bozeman, MT 59771-0520
www.bsd7.org

Kirk J. Miller, Ed.D.
Superintendent

Phone: (406) 522-6001
Fax: (406) 522-6065
kirk.miller@bsd7.org

November 25, 2009

The Honorable Denise Juneau
Superintendent of Public Instruction
P.O. Box 202501
Helena, MT 59620-2501

Dear Superintendent Juneau:

I am pleased to submit this letter of support for the Office of Public Instruction's application for an IES State Longitudinal Data Systems Grant from the U.S. Department of Education. The objectives for this grant address critical information needs to support sound education policies and practices in Montana. I commend the Office of Public Instruction for working in partnership with the Office of the Commissioner of Higher Education, the Department of Public Health and Human Services, and the Department of Labor to link data from early childhood programs to K-12 to postsecondary and the workforce. At the completion of the efforts proposed in the grant application, the state education agency and its partners will have built a longitudinal data system that provides beneficial information across programs and time.

Education stakeholders require access to quality data. The more relevant and timely the data, the more strategic and pro-active the actions that support a concerted educational strategic plan may be. Longitudinal P-20 work will allow the comprehensive and accurate study of complex inter-related societal dynamics that will allow educators at all levels to gain insight into factors that drive student achievement. These factors can then be leveraged to better support students along a continuum of services that will lead, ultimately, to successful entry in to the workforce.

The creation of data linkages from early childhood through workforce would allow an integrated approach to tracking an individual's educational achievement and post-education or career experience. As a repository of current and historical education and workforce data, a Montana P-20 data system would be used to inform a broad range of policy – and decision-making questions addressing the educational and workforce outcomes of Montana citizens.

The efforts of the state to create P-20 linkages will benefit local school districts by providing information about "what works" for school, college and career-readiness. The state's system will also provide a context for the work and results that we are seeing in our local school system. I look forward to accessing the information that results from the development of the business intelligence and web reporting tools, as well as the performance indicators.

Thank you for pursuing this grant opportunity. We are very interested in participating in the needs assessment portions of the project development.

Sincerely,

Kirk J. Miller, Ed.D.
Superintendent
Bozeman Public Schools

Budget Narrative

Budget Narrative - Budget Justification

Attachment 1:
Title: **Budget Narrative** Pages: **20** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Budget Narrative.pdf**

Montana Office of Public Instruction Budget Narrative

Note: For a more detailed description of staffing for this project, please refer to the Project, Personnel, Role, and Time Commitments section of this budget narrative.

Project Outcome	Description	Justification	Cost
Items that Pertain to All 5 Outcomes Identified in the Grant Application	Staffing – Madalyn Quinlan, Sue Mohr, Jim Gietzen, Tyler Trevor	Will provide support for all five outcomes of the grant	$0 In-Kind FTE
	Linda Atwood	OPI - Operations Research Analyst – provides knowledge about SEA operations and data systems	$214,919
	Project Manager (consultant)	OPI - Oversees project from conception through implementation	$576,000
	Business Analyst (consultant)	OPI - Works with project manager to develop documentation for the project. Assists with development of business requirements and with writing RFP and training materials	$307,200
	Travel	Two days of Travel for two senior project staff to attend two-day meeting each of the three years of the grant in Washington, D.C.	$10,959
	Computers	Computers for 13 staff and 6 contracted personnel	$26,600
	Desks, supplies, and data costs	Staff will need desks, supplies and a data connection to the network	$142,500

Project Outcome	Description	Justification	Cost
All 5 outcomes identified in this grant	Phone	Phone service for 13 staff and 6 contracted personnel	$28,500
	Rent	Non-state office rent for 13 staff and 6 contracted personnel	$384,750
	Printing and publishing costs	Print training materials for data governance, BI tools, SIF, and daily printing by each staff person	$10,000
	MontanaWorks Supervisor	DLI – Assist with management of grant	$19,440
SUB-TOTAL for items that pertain to all 5 outcomes			**$1,720,868**
Establishing data linkages among state agency partners to connect from early childhood to K-12 to post-secondary and the workforce	Thomas Dougherty, Jamie Palagi, Melody Olson, Chris Hettinger, Ron Baldwin, Sherri Dugan	OPI and DPHHS - Will provide support for data linkages	$0 In-kind FTE* These positions also support the BI tools and performance measures and reporting outcomes within the grant
	Dick Clark – State of Montana CIO	Ensures project adheres to state policies and IT standards and guidelines	$0 In-kind FTE
	New FTE – Computer Systems Analyst	DLI will provide UI data extracts as needed	$ 218,477* This position also supports BI tools and performance measures and reporting outcomes within the grant
	Existing FTE Programmer	DLI - furnish wage file data	$48,000
	New FTE – Business Analyst	DPHHS – develop requirements and manages implementation & sharing of data	$216,360

Establishing data linkages among state agency partners to connect from early childhood to K-12 to post-secondary and the workforce	New FTE – Programmer	OCHE – develop data linkages to OPI and DLI	$ 130,912* This position also supports BI tools, and performance measures and reporting outcomes of this grant
	Sharon Burt	OPI - Database Administrator	$135,422* This position also supports BI tools, and performance measures and reporting outcomes of this grant
	Consultants - 2 Computer Interface Programmers	OPI - Assist with development of matching mechanism to match student data between contributing systems	$345,600
	Consultant	DLI, Workforce Services Division – Assist with conversion of data	$37,500
	Consultant	OCHE – EIS vendor to help with data integration and transcripts	$247,000* This consultant also supports the transcripts outcome within the grant
	Computer Systems Analyst	OPI – Work with IT staff to define data sets and develop documentation, ensure data integrity, develop data validations, web portal, repots, BI tools, queries	$ 218,477* This position also supports the performance measures, transcripts, reporting and BI Tools outcomes of this grant
	Equipment	DPHHS - Server resources upgrades	$10,000* This equipment will support the data linkages and performance measures and reporting outcomes within the grant

Establishing data linkages among state agency partners to connect from early childhood to K-12 to post-secondary and the workforce	Computer Systems Analyst	OPI – Responsible for all system interfaces including SIF implementation	$218,477* This position will also support the transcripts outcome within the grant
	Business Analyst	OPI – Serves as Data Resource Administrator and develops data standards and definitions and provides training to LEAs	$216,359* This position also supports the transcripts outcome within the grant
	Business Analyst	OPI - Ensure data integrity and assist with development of data validations	$216,359* This position also supports the BI tools outcome within the grant
	Computer Systems Analyst	OPI – Security Officer - will oversee the independent information security audit and ongoing process to review and assess security issues and risks	$218,477
	Security Assessment Consultant	Independent review and analysis of the level of vulnerability on the networks and servers and evaluate network security architecture, policies, and processes	$150,000
	Consultant	DPHHS – professional services through an existing contractor for the CCUBS system	$575,000
SUBTOTAL for Data Linkages			**$3,202,420**

Project Outcome	Description	Justification	Cost
Creating an electronic student transcript repository for K-12 education	Training	On-site SIF Training for key stakeholders	$25,000
	Travel	15 days of data governance and transcript training for LEAs and stakeholders	$2,625* This cost is also associated with the data governance outcome within the grant
	Equipment	OPI - Database servers and web servers to host the SIF environment	$25,000
	Data Hosting	State data center to host the data warehouse for OPI	$41,760
	Software	OPI – SIF licenses and maintenance	$105,000
	Software	OPI – Windows & SQL server licenses	$16,000
	National Transcript Service Contract	Facilitate the transmission of transcripts	$500,000
	Data Warehouse Sustainability Contract	OCHE – data warehouse sustainability to support the transcripts, BI tools, and reporting	$1,177,000* This consultant also supports the BI tools, and performance measures and reporting outcomes within the grant.
	Consultant	OCHE – EIS Vendor to assist with data integration and transcripts	* This consultant was previously identified under the data linkages outcome
	Computer Systems Analyst	OPI – Responsible for SIF implementation	* This position was previously identified under the data linkages outcome

Project Outcome	Description	Justification	Cost
Creating an Electronic Student Transcript Repository for K-12 Education	Business Analyst	OPI – Develops data standards and definitions necessary for standardized transcripts	* This position was previously identified under the data linkages outcome
	Business Analyst	OPI – OPI - Ensure data integrity and assist with development of data validations	* This position was previously identified under the data linkages outcome
SUBTOTAL for Electronic Student Transcript Repository			**$1,892,385**
Creating a data governance structure for P-20 data	Barbara Wagner	DLI – Chief Economist – work with stakeholders regarding policies that cut across education, workforce, and economic development	$0 In-Kind
	Kathe Quittenton, Deborah Christiansen, Dolores Bock	DPHHS – Assist with policy and rule development. Assist with IT integration, BI tools, and analyzing data	$0* In-Kind These positions also support the BI Tools outcome of this grant
	Linda Snedigar	DPHHS – high level oversight of project and member of data governance team	$0 In-Kind
	Dan Villa and Pat Wise	Governor's Office – assist with policy development and implementation of interagency P-20 Data Governance Workforce	$0 In-Kind

Project Outcome	Description	Justification	Cost
Creating a data governance structure for P-20 data	Hank Hudson	DPHHS – senior leadership and oversight	$0 In-Kind
	Manager – Research and Analysis Bureau	DLI - Participate in Data Governance Committee	$27,933
	Business Analyst	OPI – Data Governance Workgroup Program Director	$216,360
	Business Analyst	OPI – Part of Data Governance Workgroup; convenes data steward on regular basis; assists with training stakeholders and staff	$216,360
	Frank Clinch	DPHHS – Legal – Participate in Data Governance	$5,580
	Lawyer	OPI – Provide legal assistance with policy development and interpretation of laws	$293,067
	Travel	Travel to LEAs to provide data governance training	* This item was previously identified under the electronic transcripts outcome
SUBTOTAL for Data Governance			**$759,298**

Project Outcome	Description	Justification	Cost
Implementing business intelligence and web reporting tools for users of P-20 data	Consultant	DPHHS – BI Tools consulting	$393,200
	Software	DPHHS – BI licensing	$100,000
	BI Tools Training	Training for key project stakeholders	$11,500
	Thomas Dougherty, Jamie Palagi, Melody Olson, Chris Hettinger, Ron Baldwin, Sherri Dugan	OPI and DPHHS - Will provide support for data linkages	* These positions are previously identified under data linkages outcome
	New FTE – Computer Systems Analyst	DLI will provide UI data extracts as needed	* This position is previously identified under data linkages outcome
	Kathe Quittenton, Deborah Christiansen, Dolores Bock	DPHHS – Assist with IT integration, BI tools, and analyzing data	* These positions are previously identified under the data governance outcome
	New FTE – Programmer	OCHE – assist with BI tools and performance measures and reporting	* This position was previously identified under the data linkages outcome
	Sharon Burt	OPI – Database Administrator	* This position was previously identified under the data linkages outcome
	New FTE – Computer Systems Analyst	Work with IT staff to develop data validations, BI tools, queries	* This position was previously identified under the data linkages outcome

Project Outcome	Description	Justification	Cost
	Consultant	OCHE – Assist with BI tools	* This consultant was previously identified under the electronic student transcripts outcome
SUBTOTAL for BI and Web Reporting Tools			**$504,700**
Developing a system of P-20 performance measurement and reporting	Thomas Dougherty, Jamie Palagi, Melody Olson, Chris Hettinger, Ron Baldwin, Sherri Dugan	OPI and DPHHS - Will provide support for data linkages	* These positions are previously identified under data linkages outcome
	New FTE – Computer Systems Analyst	DLI will provide UI data extracts as needed	* This position is previously identified under data linkages outcome
	Consultant	OCHE – EIS Vendor to assist with data integration and transcripts	* This consultant was previously identified under the data linkages outcome
	Computer Systems Analyst	Work with IT staff to develop web reports, dashboards, and performance measures and reports	* This position was previously identified under the data linkages outcome
	Equipment	DPHHS – Server resources upgrade	* This equipment was previously identified under the data linkages outcome
	Consultant	OCHE – Assist with performance measure and reporting	* This consultant was previously identified under the electronic student transcripts outcome

Project Outcome	Description	Justification	Cost
SUBTOTAL for Performance Measurement and Reporting			**$0*** All costs associated with this outcome have been previously identified with other outcomes
Total Indirect Costs for all Outcomes in Grant			**$653,821**
GRAND TOTAL of Grant Application			**$8,733,492**

Project Personnel, Role, and Time Commitments -
Additional budget information for staff is included in the staffing section of the project narrative.

Agency	Name	Position	Role in Grant	FTE
Office of Public Instruction	Madalyn Quinlan	Chief of Staff	Principal Investigator; serves as a single decision-making point of contact for the Project Manager with ability to commit organizational resources in support of the project, member of the P-20 Project Leadership Team	.10*
	Sue Mohr	Administrator-Measurement and Accountability Division	Project Coordination, Partner with the OPI Project Manager, coordinate and provide business process information, member of the P-20 Project Leadership Team, chair of the data governance process	.25*
	Jim Gietzen	Information Technology Services Division Administrator	Responsible for IT integration, policies, security, Partner with the OPI Project Manager, assist with coordinating and developing business process information, member of the P-20 Project Leadership Team, responsible for supervision and oversight of IT projects for the OPI	.25*

Agency	Name	Position	Role in Grant	FTE
Office of Public Instruction	Thomas Dougherty	Systems Development Bureau Chief	Helps with IT integration, data standards, policies, supervises Database Administrator position and systems development staff, works with IT staff to test data warehouse tools and assess the need for expansion	.25*
Office of Commissioner of Higher Education	Tyler Trevor	Associate Commissioner for Planning, Technology, and Communication	Oversees integration of high school transcripts into higher education information system; manages higher education data warehouse and upgrades/enhancements to system, works to develop and provide feedback reporting mechanisms.	.25*
Department of Labor and Industry	Barbara Wagner	Chief Economist	Work with stakeholders to inform policy questions that cut across education, the workforce, and economic development contexts	.10*
Department of Public Health and Human Services	Linda Snedigar	Administrator, Human and Community Services Division	Provides high level administrative oversight of project, authorizes activities and project priorities for HCSD. Supervises project staff, maintains data security. Member of the statewide longitudinal data team.	.05*

Agency	Name	Position	Role in Grant	FTE
Department of Public Health and Human Services	Jamie Palagi, Melody Olson, Chris Hettinger	Early Childhood Services Bureau Staff	Manages Early Childhood program, including policy, determines priorities within CCUBS system, responsible for the data to be shared with the data warehouse. Member of the P-20 project team. Supervises and maintains data security within legal limits of ECSB programs. Assists with IT integration and policies, in addition to BI tools and analyzing data, and assuring effectiveness.	.10*
	Kathe Quittenton, Deborah Christiansen, Dolores Bock	Public Assistance Bureau Staff	Program Supervision Staff to assist with policy and rule development. Assists with IT integration and policies, in addition to BI tools, analyzing data, and assuring effectiveness.	.05*
	Hank Hudson	Branch Manager, Economic Services Security	Provides DPHHS senior leadership and oversight. Assists with coordination among divisions and also serves as liaison among divisions, the department, and the Governor's office. Oversees Child and Family Services Division, Human & Community Services Division specifically mentioned in the grant.	.05*

Agency	Name	Position	Role in Grant	FTE
Department of Public Health and Human Services	Ron Baldwin	Chief Information Officer, Technology Services Division	Oversees and aligns DPHHS IT strategy and policy on integration, architecture, and security with respect to the P-20 data warehouse. Assists in the coordination of DPHHS and OPI resources. Member of the P-20 Project Leadership Team.	.05*
	Sherri Dugan	Project Management Bureau Chief	Provides direction and guidance in the management of DPHHS projects and resources related to the OPI project. Manages business analyst and project management resources responsible for implementation of data sharing projects within DPHHS.	.05*
Governor's Office	Dan Villa and Pat Wise	Governor's Office	Assist with policy development and implementation, assist with development of Interagency P-20 Data Governance Workgroup	.10*
Department of Administration	Dick Clark	CIO – State of Montana	Ensures project adheres to state policies and IT standards and guidelines.	.10*

Agency	Name	Position	Role in Grant	FTE
Department of Labor and Industry	New FTE Workforce Services Division	Programmer	Builds reports and data extracts as needed, conversion of data from MTWorks to OPI	1.0
	Existing FTE Research and Analysis Bureau	Manager	Participate in the Data Governance Committee	.10
	Existing FTE Unemployment Insurance Division	Programmer	Furnish wage file from the unemployment insurance database	480 hrs
	Existing FTE Workforce Services Division	MontanaWorks Supervisor	Assist OPI with executive management of grant	480 hrs
Department of Public Health and Human Services	New FTE Department of Public Health & Human Services	Business Analyst Project Management Bureau	Develops requirements and manages the implementation of data sharing capabilities needed for the P-20 data warehouse. Ensures that the warehouse meets enterprise and DPHHS objectives. Acts as liaison between OPI and department program staff; responsible for training DPHHS stakeholders.	1.0
	Frank Clinch Department of Public Health & Human Services	Legal	Participate in data governance committee, provide guidance on security, policies, and laws applicable to data being shared and linked among stakeholders	240 hrs

Agency	Name	Position	Role in Grant	FTE
Office of Commissioner of Higher Education	New FTE	Programmer	Develop connections from transcript repository to higher education enterprise information (EIS); assist with data integration into EIS and data warehouse; develop linkages back to OPI and Workforce data warehouses; create electronic dashboard/feedback reports	1.0
Office of Public Instruction	Linda Atwood	Operations Research Analyst	Provides knowledge about SEA operations and data systems; assists business analyst with defining business rules and processes, mapping data and defining data elements, participates in data governance	1.0
	Sharon Burt	Database Administrator	Primary resource to define data sets and develop documentation for P-20 data warehouse. Ensure data integrity and assist with developing data validations during design phase.	.50

Agency	Name	Position	Role in Grant	FTE
Office of Public Instruction	New FTE	Computer Systems Analyst	Responsible for all system interfaces including SIF implementation	1.0
	New FTE	Computer Systems Analyst	Works with IT staff to define data sets and develop documentation for P-20 Data Warehouse. Ensure data integrity and assist with developing data validations during design phase. Responsible for developing web reports, queries, and business intelligence tools.	1.0
	New FTE	Business Analyst	Interagency P-20 Data Governance Workgroup Program Director – Responsible for setting up and staffing the task force including all meeting management processes. Responsible for development and implementation of overall data governance plan. Develops business processes that ensure project fulfills the enterprise's strategic objectives; develops data quality processes and policies, is responsible for statewide training plan and data certification process.	1.0

Agency	Name	Position	Role in Grant	FTE
	New FTE	Business Analyst	Validates the accuracy of the data submitted by all partnering agencies and performs on-site data audits and validations	1.0
Office of Public Instruction	New FTE	Business Analyst	Part of the data governance workgroup - Identifies and convenes data stewards on regular basis, staffs Data Steward Council, develops governance certification program, assists with training stakeholders and agency staff, coordinates development of meta data, data dictionary and use of data, creates documentation for business processes around data and documents business rules, develops data audit process, develops data request process.	1.0

Agency	Name	Position	Role in Grant	FTE
Office of Public Instruction	New FTE	Legal	Responsible for development of policies for P-20 Data Governance, helping with interpretation of applicable state and federal laws and applying those laws to new policies developed for system, works with legal staff from participating agencies to ensure that all data is handled according to state and federal law, regulation, policy and guideline for each dataset. Assists with development of data request process, data audit process to ensure that those processes are in accordance with law and regulatory requirements.	1.0
	New FTE	Computer Systems Analyst - Security Officer	Oversees the independent information security audit as well as manage and execute an ongoing process to review, assess and address security issues and risks on an ongoing basis.	1.0
	New FTE	Business Analyst	Serves as the Data Resource Administrator and develops a set of data standards and definitions that apply to all data and provides training on the data standards to the LEAs.	1.0

FTE supported by Grant Funds: 13.18 **In-Kind FTE: 1.75**
Total Project FTE: 14.93

*FTE is provided as in-kind support to project.

Consultants, Role, and Time Commitments

Name	Role in Grant	Time Commitment
Consultant	Project Manager - Oversees project from conception through implementation, develops project plans and timelines, works with existing OPI project manager to learn OPI business processes and state contract management and negotiation processes	Full time for two years (calculated to be 96 weeks)
Consultant for Office of Commissioner of Higher Education (OCHE)	Enterprise Information System vendor to help with data integration; add high school course table to current information system; integrate high school transcript data with advising system; assist with data export programming necessary to integrate information into operational data store.	1300 hours
Consultant – DLI – Workforce Services Division	Assist with conversion of data from MontanaWorks to OPI	300 hours
Business Analyst - Consultant	Works with the project manager at OPI to develop documentation on the project. Assist with the development of the business requirements needed to develop the RFP for the electronic transcript system. Assists with writing the RFP. Will be responsible for writing training materials and providing training on the use of the electronic transcripts system.	Full time for two years (calculated to be 96 weeks)
Security Assessment Consultant	Review and analyze vulnerabilities on the networks and servers involved in the P-20 data warehouse and to evaluate network security	Year 2 of grant
Software Developer Consultant	Assist with the construction of the connectivity between agencies.	Nine Months
Software Developer Consultant	Assist with the construction of the connectivity between agencies	Nine Months
Data Warehouse Sustainability - OCHE	Programming and data conversion	800 hours
National Transcript Service - OPI	Facilitate the transmission of transcripts both within Montana and with other states	Years 1, 2 and 3 of grant
BI Tools Consulting – DPHHS	Business Intelligence Tools Consulting	2020 hours
CCUBS Upgrades - DPHHS	Upgrade system from Oracle 6i to 10g and create a system application for Best Beginnings STARS to Quality Program	5000 hours

Budget Narrative

Budget Narrative - ED 524 Section C Spreadsheet

Attachment 1:
Title: **ED 524 Section C Spreadsheet** Pages: **4** Uploaded File: **S:\Data Warehouse\IES Longitudinal Grant Appl\2009 Grant Application\Application & Forms Submittal\Section C Budget Narrative.pdf**

Section C - Budget Narrative

Name	Agency	Position	FTE	Total Comp Rate	Salary 7/1/10 - 6/30/11	Benefits @ 17.25%	Insurance 7/1/10 - 6/30/11	Total for Year 1
Atwood, Linda	OPI	35100204	1.000	24.809854	51,803	8,936	8,472	$69,211
Burt, Sharon	OPI	35102003	0.500	32.202390	33,619	5,799	4,236	$43,655
Business Analyst	OPI		4.000	25.000000	208,800	36,018	33888	$278,706
Business Analyst	DPHHS		1.000	25.000000	52,200	9,005	8472	$69,677
Lawyer	OPI	band 7	1.000	35.140000	73,372	12,657	8,472	$94,501
Computer Systems Analyst	OPI & DLI	band 6	4.000	25.280000	211,139	36,421	33,888	$281,448
			11.500		630,933	108,836	97,428	**$837,197**

Name	Agency	Position	FTE	Total Comp Rate	Salary 7/1/11 - 6/30/12	Benefits @ 17.25%	Insurance 7/1/11 - 6/30/12	Total for Year 2
Atwood, Linda	OPI	35100204	1.000	24.809854	53,357	9,204	9,065	$71,626
Burt, Sharon	OPI	35102003	0.500	32.202390	34,628	5,973	4,533	$45,134
Business Analyst	OPI		4.000	25.000000	215,064	37,099	36,260	$288,423
Business Analyst	DPHHS		1.000	25.000000	53,766	9,275	9,065	$72,106
Lawyer	OPI	band 7	1.000	35.140000	75,573	13,036	9,065	$97,675
Programmer	OCHE		1.000		50,000	7,308	8,148	$65,456
Computer Systems Analyst	OPI & DLI	band 6	4.000	25.280000	217,473	37,514	36,260	$291,247
			12.500	167.432244	699,861	119,409	112,396	**$931,666**

Name	Agency	Position	FTE	Total Comp Rate	Salary 7/1/12 - 6/30/13	Benefits @ 17.25%	Insurance 7/1/12 - 6/30/13	Total for Year 3
Atwood, Linda	OPI	35100204	1.000	24.809854	54,911	9,472	9,700	74,083
Burt, Sharon	OPI	35102003	0.500	32.202390	35,636	6,147	4,850	46,634
Business Analyst	OPI		4.000	25.000000	221,328	38,179	38,800	298,307
Business Analyst	DPHHS		1.000	25.000000	55,332	9,545	9,700	74,577
Lawyer	OPI	band 7	1.000	35.140000	77,775	13,416	9,700	100,891
Programmer	OCHE		1.000		50,000	7,308	8,148	65,456
Computer Systems Analyst	OPI & DLI	band 6	4.000	25.280000	223,807	38,607	38,800	301,214
			12.500	167.432244	718,789	122,674	119,698	$ **961,161**

Misc Support Staff					Year 1	Year 2	Year 3	Total	
Legal	DPHHS		60 hrs		1860	1860	1860	$5,580	
MTWorks Supervisor	DLI		480 hrs		6,480	6,480	6,480	$19,440	
Manager WSD Bureau	DLI		$9311/yr		9,311	9,311	9,311	$27,933	
Programmer - UI Division	DLI		480 hrs		16,000	16,000	16,000	$48,000	
Total Misc Support Staff					33,651	33,651	33,651	**$100,953**	
FTE Totals					**2,083,234**	**384,570**	**363,173**	**$2,830,977**	
Total with Indirect Costs at 16.3% for Salaries								**$3,292,426**	
					Year 1	Year 2	Year 3	TOTAL	
Equipment (over $5,000) (Note: Exempt from indirect costs)			Database & Web Servers		25,000	0	0	$25,000	
Server Upgrades at DPHHS					10,000	0	0	$10,000	
Total Equipment								**$35,000**	
ITSD Data hosting					0	20,880	20,880	$41,760	
Total with Indirect Costs at 16.3% for Data Hosting								**$48,567**	
Software/Licensing - OPI		Windows & SQL Server Licenses				16,000		$16,000	
BI Tools Licensing - DPHHS						100,000		$100,000	
Total								$116,000	
Total with Indirect Costs at 16.3% for Software								**$134,908**	
SIF costs					105,000			$105,000	
Total with Indirect Costs at 16.3% for SIF Costs								**$122,115**	
On-site BI Tools Training for key stakeholders			$5,00/day + $1500 for travel expenses			11,500	0	$11,500	
Total with indirects on 1st $25,000 of each contract								**$13,375**	
On-site SIF Training			$5,000/day for 5 days		0	25,000	0	$25,000	
Total with indirects on 1st $25,000 of each contract								**$29,075**	
Rent	Non-state rent = 22.50/sq ft x 300 sq ft/FTE = $6750/FTE				128,250	128,250	128,250	$384,750	
Desks, etc.					22,800			$22,800	$1200/staff
Supplies					38,000	38,000	38,000	$114,000	$2000/staff
Computers					26,600			$26,600	$1400/staff
Phone					9,500	9,500	9,500	$28,500	$500/staff
Data costs (Bresnan, etc.)					1,900	1,900	1,900	$5,700	$100/staff
Printing Training Materials					-	-	10,000	$10,000	
Total								$592,350	
Total with Indirect Costs at 16.3% for Rent, desks, supplies, computers, phone, data								**$688,903**	
above costs are calculated for 8.5 FTE + 5 contracted positions listed below									

Contracts (Note: only pay indirects on 1st $25,000 of each contract)		Year 1	Year 2	Year 3	Total
Staff Augmentation					
Project Manager	150/hr	$144,000.00	$288,000.00	$144,000.00	$576,000
Consultant (Business Analyst)	80/hr	$76,800.00	$153,600.00	$76,800.00	$307,200
Consultant (interface programmer)	120/hr		$172,800.00		$172,800
Consultant (interface programmer)	120/hr		$172,800.00		$172,800
Consultant (DLI - data conversion)	125/hr	$37,500.00			$37,500
BI Consulting Services - DPHHS	2020 total hrs		$393,200.00		$393,200
Indirect Costs	$150,000 * 16.3% for 6 contracts =				$24,450
Total for Staff Augmentation contractors					**$1,683,950**
Contract for a national transcript exchange			500,000		$500,000
Indirect Costs for NTC based on 1st $25,000 of contract =					$4,075
TOTAL for national transcript exchange					**$504,075**
EIS Consulting - OCHE			247,000		$247,000
Indirect Costs for EIS Consulting based on 1st $25,000 of contract =					$4,075
Total for EIS					**$251,075**
Independent Information Security Assessment			150,000		$150,000
Indirect Costs based on 1st $25,000 of contract =					$4,075
TOTAL for Security Assessment					**$154,075**
Data Warehouse Sustainability - OCHE		392,333.33	392,333.33	392,333.34	$1,177,000
Indirect Costs for Data Warehouse Sustainability Consulting based on 1st $25,000 of contract =					$4,075
Total for Data Warehouse Sustainability					**$1,181,075**
CCUBS Upgrades - DPHHS	5000 total hrs	$575,000.00			$575,000
Indirect Costs for CCUBS Consulting based on 1st $25,000 of contract =					$4,075
Total for CCUBS Upgrades					**$579,075**

					Year 1	Year 2	Year 3	Total	
Travel for two senior project staff to attend a two day meeting each year in Washington, D.C.									
Airfare, Car Rental, Meals, Hotel					$3,653.00	$3,653.00	$3,653.00	$10,959	
15 days travel including mileage, per diem, and lodging					0	0	$2,625.00	$2,625	$175/day
Total for Travel								$13,584	
Total with Indirect Costs for Travel								**$15,798**	
Indirect Costs Total								$653,821	
Grand Total								**$8,733,492**	