

# **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 # R384A100016**

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.).

<b>Application for Federal Assistance SF-424</b>		Version 02
* 1. Type of Submission		
<input type="checkbox"/> Preapplication	* 2. Type of Application: * If Revision, select appropriate letter(s):	
<input checked="" type="checkbox"/> Application	<input checked="" type="checkbox"/> New	
<input type="checkbox"/> Changed/Corrected Application	<input type="checkbox"/> Continuation	* Other (Specify)
	<input type="checkbox"/> Revision	
* 3. Date Received:		4. Applicant Identifier:
12/3/2009		
5a. Federal Entity Identifier:		* 5b. Federal Award Identifier:
U. S. Department of Education		CFDA 84.384
<b>State Use Only:</b>		
6. Date Received by State:		7. State Application Identifier:
<b>8. APPLICANT INFORMATION:</b>		
* a. Legal Name: Washington State Office of Superintendent of Public Instruction		
* b. Employer/Taxpayer Identification Number (EIN/TIN):		* c. Organizational DUNS:
916001112		808888289
<b>d. Address:</b>		
* Street1:	600 Washington St. SE	
Street2:	Old Capitol Building	
* City:	Olympia	
County:	Thurston	
State:	WA	
Province:		
* Country:	USA	
* Zip / Postal Code:	98504	
<b>e. Organizational Unit:</b>		
Department Name:		Division Name:
Public Policy & Planning		Executive Services
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>		
Prefix:	Mr.	* First Name: Bob
Middle Name:		

\* Last Name: Butts

Suffix:

Title: Assistant Superintendent - Public Policy and Planning

Organizational Affiliation:

Office of Superintendent of Public Instruction

\* Telephone Number: (360)725-0420 Fax Number: (360)753-6712

\* Email: BOB.BUTTS@K12.WA.US

**Application for Federal Assistance SF-424**

Version 02

**9. Type of Applicant 1: Select Applicant Type:**

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

**10. Name of Federal Agency:**

U.S. Department of Education

**11. Catalog of Federal Domestic Assistance Number:**

84.384A

CFDA Title:

Statewide Longitudinal Data System Recovery Act Grants

**\* 12. Funding Opportunity Number:**

ED-GRANTS-0729090001

Title:

Institute of Education Sciences (IES) Grant Program for Statewide Longitudinal Data Systems Recovery Act Program (ARRA) CDFA 84.384A

**13. Competition Identification Number:**

2009

Title:

Institute of Education Sciences (IES) Grant program for Statewide Longitudinal Data Systems

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

State of Washington

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

Washington State Plan for a PK-20 Statewide Longitudinal Education Data Systems (SLEDS)

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: 3rd

\* b. Program/Project: 4th,6th,9th

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

**Attachment:**

Title :

File :

**17. Proposed Project:**

\* a. Start Date: 5/1/2010

\* b. End Date: 4/30/2013

**18. Estimated Funding (\$):**

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

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

a. This application was made available to the State under the Executive Order 12372 Process for review on .

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

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

Yes  No

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

\*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix: Mr. \* First Name: Ken

Middle Name:

\* Last Name: Kanikeberg

Suffix:

Title: Chief of Staff

\* Telephone Number: (360)725-6115 Fax Number: (360)753-6712

\* Email: KEN.KANIKEBERG@K12.WA.US

\* Signature of Authorized Representative:

\* Date Signed:

**Application for Federal Assistance SF-424**

Version 02

**\* Applicant Federal Debt Delinquency Explanation**

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

Not applicable



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

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:  
 Washington State Office of Super...

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	\$ 1,523,672	\$ 1,863,340	\$ 1,629,420	\$ 0	\$ 0	\$ 5,016,432
2. Fringe Benefits	\$ 457,101	\$ 559,006	\$ 488,826	\$ 0	\$ 0	\$ 1,504,933
3. Travel	\$ 39,820	\$ 39,881	\$ 38,470	\$ 0	\$ 0	\$ 118,171
4. Equipment	\$ 1,041,994	\$ 105,161	\$ 2,573	\$ 0	\$ 0	\$ 1,149,728
5. Supplies	\$ 683,721	\$ 1,097,593	\$ 345,131	\$ 0	\$ 0	\$ 2,126,445
6. Contractual	\$ 1,701,000	\$ 2,272,937	\$ 2,204,374	\$ 0	\$ 0	\$ 6,178,311
7. Construction	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
8. Other	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
9. Total Direct Costs (lines 1-8)	\$ 5,447,308	\$ 5,937,918	\$ 4,708,794	\$ 0	\$ 0	\$ 16,094,020
10. Indirect Costs*	\$ 416,250	\$ 413,443	\$ 292,013	\$ 0	\$ 0	\$ 1,121,706
11. Training Stipends	\$ 52,500	\$ 45,526	\$ 28,119	\$ 0	\$ 0	\$ 126,145
12. Total Costs (lines 9-11)	\$ 5,916,058	\$ 6,396,887	\$ 5,028,926	\$ 0	\$ 0	\$ 17,341,871

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

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

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

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

Period Covered by the Indirect Cost Rate Agreement: From: 7/1/2008 To: 6/30/2009 (mm/dd/yyyy)

Approving Federal agency:  ED  Other (please specify): \_\_\_\_\_ The Indirect Cost Rate is 11.4%

(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 11.4%



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

OMB Control Number: 1894-0008

Expiration Date: 02/28/2011

Name of Institution/Organization:  
Washington State Office of Super...

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:** Ken Kanikeberg

**Title:** Chief of Staff

**Date Submitted:** 11/06/2009

### Disclosure of Lobbying Activities

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

<b>1. Type of Federal Action:</b> <input type="checkbox"/> Contract <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Loan <input type="checkbox"/> Loan Guarantee <input type="checkbox"/> Loan Insurance	<b>2. Status of Federal Action:</b> <input checked="" type="checkbox"/> Bid/Offer/Application <input type="checkbox"/> Initial Award <input type="checkbox"/> Post-Award	<b>3. Report Type:</b> <input checked="" type="checkbox"/> Initial Filing <input type="checkbox"/> Material Change <b>For Material Change only:</b> Year: 0 Quarter: 0 Date of Last Report:
<b>4. Name and Address of Reporting Entity:</b> <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier, if known: 0 Name: Office of Supt. Public Instruction Address: 600 Washington St. SE City: Olympia State: WA Zip Code + 4: 98504-7200  <b>Congressional District, if known: 03</b>	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>  Name: Address: City: State: Zip Code + 4: -  <b>Congressional District, if known:</b>	
<b>6. Federal Department/Agency:</b> Institute of Education Sciences	<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable: 84.384	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b> \$0	
<b>10. a. Name of Lobbying Registrant</b> (if individual, last name, first name, MI): Address: City: State: Zip Code + 4: -	<b>b. Individuals Performing Services</b> (including address if different from No. 10a) (last name, first name, MI): Address: City: State: Zip Code + 4: -	
<b>11.</b> 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: Ken Kanikeberg Title: Chief of Staff Applicant: Washington State Office of Superintendent of Public Instruction Date: 11/06/2009	
<b>Federal Use Only:</b>		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

Washington State Office of Superintendent of Public Instruction

### PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: Mr.      First Name: Ken      Middle Name:  
Last Name: Kanikeberg      Suffix:  
Title: chief of staff

Signature: \_\_\_\_\_      Date: 11/06/2009

ED 80-0013

03/04



# Project Narrative

## Project Narrative - Project Abstract

Attachment 1:

Title: **Washington State SLEDS Abstract Pages: 1** Uploaded File: **D:\Section5\_Abstract.pdf**

# 5. Project Abstract

## **Washington State Office of Superintendent of Public Instruction Proposal for Evergreen State P-20 Longitudinal Data System**

Washington's statewide K-12 longitudinal data system has the ability to track individual student enrollment, assessments, and course-taking information, as well as information about teachers. The projects in this proposal will extend those K-12 capabilities by incorporating longitudinal early learning, post-secondary, and workforce information into a unified, comprehensive, and efficient P-20 system. The Evergreen State P-20 system (ESP-20) will be a collaborative effort by the Office of Superintendent of Public Instruction, the Education Research and Data Center, and other partner agencies.

Proposed projects will strengthen capabilities and accelerate progress in five outcome areas:

- 1) **Data governance.** Agreements outlining when, how, and what data can be shared are a crucial component to making data available, particularly when such a large volume of data and numerous contributing agencies are involved. The goal is to generate a clear process that will accelerate the ability to share linked individual-level data while also protecting individuals' privacy.
- 2) **Research and reporting.** These products will be in the form of research briefs that can help inform policy decisions, local level reports that track student outcomes and achievements, and research data sets. The emphasis will be on producing information and understanding from the wealth of assembled data. The goal is to improve the timeliness of the information produced and usability of the data.
- 3) **Data warehouse environment.** The construction of a structured P-20 data environment will include a data inventory spanning systems, the development of a P-20 data dictionary, and the implementation of a data warehouse with a variety of data marts designed to support research and reporting. The goal is to efficiently generate research datasets and summary information and to help ensure data quality.
- 4) **Interoperability.** The goal is to facilitate the efficient and standardized exchange of data between ESP-20 and contributing data systems.
- 5) **Strengthening systems that contribute data to ESP-20.** Efforts in this area will include enhancements to the community and technical college data system, the higher education program database, early learning student information, and private vocational school information. The goal is to improve the quality of data coming in to ESP-20.

Washington State is poised to build upon existing partnerships and data availability to develop a structured and extensive longitudinal P-20 system. Upon completion of this project, Washington will meet all of the required capabilities and elements of a P-20 longitudinal data system. The project builds on best practices to ensure effective data use by linking systems, making data available, and building capacity.

ESP-20 will enable efficient queries, produce research and information that can inform policy decisions, and provide information spanning the educational sectors. Receipt of grant funds will greatly accelerate Washington's progress and will lead to education information that will inform educators, stakeholders, and policy-makers.

# **Project Narrative**

## **Project Narrative - Project Narrative**

Attachment 1:

Title: **WA SLEDS Project Narrative** Pages: **30** Uploaded File: **D:\Section6\_Narrative.pdf**

# 6. Project Narrative

## **(a) Need for project**

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### **Background and Context**

Washington is poised to have one of the best longitudinal P-20 data systems in the nation. In 2005, Washington Governor Chris Gregoire created and led Washington Learns, an 18-month review of Washington's entire education system, including workforce training. A diverse group of business, community, education, government and minority leaders built a roadmap for a world-class education system that prepares all Washington students to succeed in the global economy. Responding to recommendations of the Washington Learns effort, the 2007 Washington State Legislature created the Education Research and Data Center (ERDC) within the Office of Financial Management (OFM). The Legislative Evaluation and Accountability Program (LEAP) serves as a statutory partner. As stated in the Revised Code of Washington, the ERDC is to "[conduct] analyses of early learning, K-12, and higher education programs and education issues across the P-20 system." The P-20 system is defined by law as all education agencies plus the Employment Security Department (ESD), which is the state agency responsible for collecting and reporting individual-level employment data such as industry of employment and wages. Education agencies specified as being part of the P-20 system are the Department of Early Learning (DEL), Office of Superintendent of Public Instruction (OSPI), Professional Educator Standards Board (PESB), State Board of Education (SBE), State Board for Community and Technical Colleges (SBCTC), Workforce Training and Education Coordinating Board (WTECB), Higher Education Coordinating Board (HECB), and public and private non-profit four-year higher education institutions. The P-20 agencies and institutions are to make relevant data available to the ERDC and, in turn, the ERDC is to "make data from collaborative analyses available to the education agencies and institutions that contribute data."

At the heart of the P-20 system is the K-12 longitudinal data system managed by the state education agency, OSPI. OSPI's development of the K-12 longitudinal system is being supported in part by an Institute of Education Sciences (IES) Statewide Longitudinal Data System grant (award number R372A090024), which began July 2009. This application for IES – ARRA support is to extend those K-12 capabilities by incorporating longitudinal; early learning, post-secondary, and workforce information into a comprehensive and efficient P-20 system and allow the SEA to be able to transmit data more easily to the P-20 statewide longitudinal data system within ERDC. Further development of the P-20 system involves establishing a P-20 interagency data governance system, enhancing the source systems for early learning, higher education and workforce data, conducting cross-level research and reporting, and establishing a state-of-the-art longitudinal data warehouse.

Complementing the OSPI K-12 student information is the Public Centralized Higher Education Enrollment System (PCHEES), a statewide student unit record enrollment and outcomes data system managed by OFM on behalf of the state's public baccalaureate higher education institutions. PCHEES includes student characteristics, enrollment information to the course-taking level, and, since 2005-06, course completion information and degree awards.

***Washington's state education agency, OSPI, has a close working relationship with ERDC.***

OSPI has been closely collaborating with the staff at ERDC since its inception. A data-sharing agreement was quickly established to clarify that ERDC is 'part of the OSPI family'. As defined

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in the Revised Code of Washington, ERDC is considered “an authorized representative of the state educational agencies ... for purposes of accessing and compiling student record data for research purposes.” This allows OSPI to share all agency data related to students (including course-taking and teachers) with ERDC. Data files are now routinely provided to ERDC, which makes possible the discussion of K-12 related research studies.

***The longitudinal data systems of OSPI and ERDC are complementary.*** ERDC and OSPI have differing needs for K-12 student-course-teacher data. The ERDC, focusing on retrospective analysis of student transitions, requires some K-12 data extracts from OSPI only on an annual basis, along with some monthly extracts from the current year. There are no requirements that the ERDC data system be transactional in nature other than as related to updating linkages of students within various sectors. OSPI, on the other hand, has developed a data system that supports U.S. Department of Education reporting requirements, the annual statewide assessment program, apportionment funding to districts, and other sector-specific activities. OSPI is a recipient of an IES 2009 K-12 Statewide Longitudinal Data Systems grant that supports the development of a K-12 data warehouse environment for the Comprehensive Education Data and Research System (CEDARS). This grant is assisting OSPI in meeting all ten of the K-12 longitudinal data system element requirements.

***OFM, the agency housing ERDC, has historically operated and maintained a student-level enrollment and outcomes data system on behalf of the state’s public baccalaureate institutions.*** Public four-year higher education institutions provide student-level enrollment and outcomes data to the Public Centralized Higher Education Enrollment System (PCHEES), which is operated and maintained by OFM and is now integrated with ERDC activities.

***Washington is a leader in assessing workforce outcomes for students in workforce training.*** Washington has been a nationally recognized leader for tracking students across education systems and into the workforce. The WTECB and SBCTC have worked together to develop standard protocols for assessing workforce outcomes using employment records obtained from ESD. These agencies have been applying standardized methods in assessing workforce outcomes for completers and graduates for more than a decade.

### **Status of the Current P-20 Longitudinal Data System**

The ERDC has made significant progress in its first two years, including the development of data-sharing agreements with P-20 partner agencies, sharing of K-12 data files, and linking K-12 and post-secondary records. These agreements allow ERDC to import data into the emerging P-20 data system. Progress has also been made in bringing in and linking education data from public K-12 and postsecondary sectors, though it has been on an ad-hoc basis. Matching and linking procedures are in place, setting the stage for the development of longitudinally linked cross-sector datasets. OSPI has provided to ERDC a series of identifiable individual-level student data dating back to 1999, and will be providing course and teacher data once those data are available (December 2009). The K-12 data includes monthly enrollment, demographic and program participation information, statewide accountability assessment score files, language proficiency assessment score files, and enrollment status records including graduation and dropout status.

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Beginning in 2009 - 2010, OSPI has been collecting information that links teachers to students through courses. Several areas of interest have been identified as subjects for potential research studies by ERDC, including career pathways taken by newly trained and certificated teachers and the distribution of teachers by their characteristics and the characteristics of their students and schools. OSPI's K-12 longitudinal data system also has data on the preparation program of teachers who received their certifications in Washington. OSPI is also using IES grant funding to incorporate teacher preparation program information for those teachers who received their education outside Washington. All of the teacher preparation, certification and endorsement data will be shared with ERDC on a regular basis. ERDC will have teacher data from other sources as well. For teachers completing programs in Washington public institutions, PCHEES allows for analysis down to the course-taking patterns and time and pathway to degree. HECB financial aid data can supplement information in PCHEES and shed light on the financial aid status of students preparing for teaching careers.

Public four-year institution data from PCHEES has been longitudinalized and incorporated into ERDC analyses. Several years of community and technical college system data have also been received. Efforts to match and link across these datasets are progressing using an ERDC-assigned P-20 identifier. Data from these systems include term enrollment; admissions and completion information, including admissions test scores and transfer credits; degree type and primary field of study; courses taken, including those that are remedial; and academic performance information.

While work to link education data across sectors is progressing, legislators and policy-makers are looking for data and reports that can inform policies to improve the education system. Thus ERDC staff have developed initial datasets that allow selected analyses to be performed as demonstration or "proof of concept" examples. An early analysis effort focused on public college-going patterns (community college vs. baccalaureate institution), a one-year follow-up that examined all 12<sup>th</sup> graders, including those who did not graduate. Another linked these same individuals' 10<sup>th</sup> grade assessment scores and income status (based on free- and reduced-price lunch eligibility) with public-college-going patterns in the year after high school. ERDC has recently provided the HECB with a dataset linking financial aid information with public baccalaureate enrollment. This dataset enables HECB to assess state financial aid policies using previously unavailable linked information.

### **An Outline of Needs and Potential**

Based on our experience, we identified categories needing improvement or development. These areas also address the required capabilities and elements identified in the request for applications.

*Efficiencies.* As ERDC staff have worked with data from the various education sectors, they have gained knowledge and experience vital to the design of a more formal data system to support longitudinal studies. Current studies have been done in an ad hoc fashion, which is appropriate for initial exploratory work with datasets, but not efficient in the long run. Several "standard" feedback reports that contain elements of interest to K-12 educators, CTC and HECB staff, and policy-makers have been identified. These could be created in an ad hoc fashion, but the efficiencies of a more formal data system would support the routine generation of these products as well as provide more opportunities to establish linkages between education and other sectors, such as social services and corrections. Progress in turning longitudinal data into useful

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information and in integration of data from other sectors has been hindered by the lack of a data system that is designed to support large quantities of data and efficient longitudinal analysis.

*Data interoperability.* Other than the submission of data by public baccalaureate institutions to PCHEES, all data exchanges related to ERDC work have been ad hoc exchanges using secure transfer protocols. Most efforts in the area of data exchange and storage have focused on ensuring that any data held by ERDC is stored and used in a secure manner. Secure servers and fully encrypted PCs are used for all ERDC work. The next step involves adopting standard frameworks for sharing data efficiently (NCES, SIF, PESC), development of an integrated P-20 data model using data warehousing best practices, and development of mature integration services to ensure data quality.

*Expanding who can be tracked.* Student data from the public K-12 system and from public higher education institutions in Washington form the core of the current P-20 data system in Washington. While these data represent the majority of P-20 students in the state, there are noteworthy missing elements which should be present in a comprehensive P-20 system that tracks student progress over time. Areas where data have not yet been collected for incorporation into the system include: early learners (other than those students served by the public K-12 system), social service participants, postsecondary enrollment and completions for private institutions in Washington and all out-of-state institutions, apprenticeships, and adult basic education.

*Tracking all students into workforce.* In the area of linking students with further education and the workforce, selected groups of education completers have been tracked routinely using methods established over ten years ago by the WTECB and the SBCTC. OSPI routinely conducts follow-up studies of its career and technical education completers, as required by federal law. Workforce outcomes for completers of workforce programs are routinely conducted by the WTECB. A special one-time legislatively-mandated study tracked bachelor's degree recipients into the workforce. In short, there has been a lot of linking going on in Washington, but not in a comprehensive manner. For example, no one has characterized the workforce outcomes of individuals who have dropped out of high school or left a postsecondary program without receiving a degree. In other words, individuals who have followed the traditional education pipeline have been studied; "leaks" in the pipeline have not. The establishment of an efficient and comprehensive P-20 education and workforce data system will allow for routine comprehensive follow-ups of all education participants.

*Incorporation of teacher information.* ERDC also has the potential to analyze teacher data, since teachers are both products of postsecondary education and inputs to K-12 education. With forthcoming teacher-related data from multiple sectors, decision-makers are looking for a comprehensive analysis of a variety of teacher-related topics. The building blocks are in place, but ERDC work in this area has not yet begun.

*Data governance.* In the area of data governance, ERDC is ready to address more complex issues after having established data-sharing agreements with P-20 partner agencies. As a start, an education agency director's group has been formed to work with the ERDC to prioritize projects and resolve data issues. There is a maze of issues involved with sharing and using linked data from multiple agencies. Significant work remains in establishing a data governance

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structure that addresses data sharing and use protocols, data request procedures, and review processes to assure data owners that data are being used appropriately.

The P-20 data governance path will be complementary to an existing K-12 data governance process. The data governance system for K-12 focuses on identifying and prioritizing policy and research questions, data collection, data quality, and managing change in conjunction with the impact on school districts. While the two governance perspectives are related, the P-20 data governance emphasis will be on how to share linked data, including obtaining agreements from data owners, clarifying data use restrictions, and maintaining confidentiality.

*Improved efficiencies and precision.* Several efforts currently exist to share aggregate data between sectors, although there is need for improved efficiency and precision. For example, the two-year college system publishes a remediation enrollment report that compiles aggregate data by school districts with high school level information. The report is also sent to the legislature. To do this the community college state board uses a student self-report for high school graduation status and an age algorithm to derive “recent high school graduate.” The new system will allow for individual level matching between K-12 and higher education to more precisely analyze new graduate course-taking patterns in higher education, including remedial coursework, as well as high-school course-taking.

*Outreach activities* are necessary to inform practitioners and policy-makers about the P-20 data system capabilities for research, data analysis, and program evaluation, and to solicit input from them regarding desirable features of the system that would support their needs. ERDC staff have interacted with stakeholders by attending meetings and presenting information about the status and future plans for the P-20 data system. However, there is a need for a systematic effort to reach the full range of potential users of information developed from the P-20 data system. In addition, users will need training and technical assistance to use products created.

*Data use for local-level decisions.* Educators are already adept at using school-level data to inform changes within their district. Educators are interested in following students into higher education and the workforce to further inform decisions. ESP-20 will make it more efficient for schools and districts to identify student outcomes and best practices.

ERDC staff, working with staff from partner agencies, is ready to move ahead in the development of longitudinal education information that will serve the needs of stakeholders, inform policy-makers, and lead to the improvement of student achievement in the state of Washington. Receipt of grant funds will serve to greatly accelerate the process of developing a robust, comprehensive longitudinal P-20 system, while getting input from a variety of audiences. The system will enable efficient queries, produce research and information that can inform policy decisions, and provide information spanning the educational sectors.

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**Current status of State's Longitudinal Data System**

		Completed for K-12 only	Funded through 2009 IES grant for K-12 only	Currently ad-hoc by ERDC; P-20 SLDS grant improves or accelerates for P-20	Development with P-20 SLDS grant	
<b>7 capabilities</b>	C1 Examine student progress over time		x	x		
	C2 Facilitate/enable exchange of data			x		
	C3 Link student data with teachers		x			
	C4 Teachers linked to certification & prep	x	x			
	C5 Data easily generated -timely reporting				x	
	C6 Data quality - integrity				x	
	C7 Meet reporting requirements	x			x	
<b>12 elements</b>	<b>P-20</b>	E01 Unique student ID	x		x	
		E02 Enrollment, demographic, program info	x		x	x
		E03 Exit, transfer, drop-out, completions	x		x	x
		E04 Communicate with HE systems			x	
		E05 Data audit system	x			x
	<b>K-12</b>	E06 K-12 Assessment records	x			
		E07 Students not tested	x			
		E08 Teacher ID system	x			
		E09 Transcript info (courses, grades)	x			
		E10 College readiness scores	x			
	<b>Post-sec.</b>	E11 Transition to post-sec (including remedial)			x	
		E12 Other info re prep for post-sec				x

This chart tied to relevant outcomes can be found in Appendix C.

**Capabilities and Elements to be Developed**

Based on the needs described above, we have grouped the project goals into six outcome areas. Below is an overview of those project areas that, with grant funding, would develop or accelerate progress of the state's P-20 system. A complete description of each project outcome is in Section B of the narrative.

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1. **Data Governance.** Current data-sharing agreements allow for the ERDC to receive data and link data from numerous sectors. While that lays the groundwork, much work remains to determine how data will be shared outside once ERDC has combined individual-level data from multiple sources. Work proposed here will lead to the accelerated development of the complex data-sharing protocols that will be involved with cross-sector datasets. In addition, some data sharing agreements will need to be expanded to include a more robust set of information. Procedures to maintain confidentiality and privacy must be designed, and agreements regarding data use and restrictions need to be approved. This type of data governance – the agreement of when, how, and what data can be shared – is a crucial component to making the data available to state agencies and external researchers, particularly when such a large volume of data and numerous contributing agencies are involved. Data element inventory and standard data definitions are addressed in the development of the data warehouse.
2. **Research and Reporting.** An ERDC mandate is to conduct analyses of P-20 data and make cross-sector data available. ERDC staff, working with stakeholders, have preliminarily begun to design reports that will provide feedback to high schools, community and technical colleges, and universities. These reports will have information regarding participation and outcomes of students in subsequent education and workforce activities. Increased funding will greatly accelerate production of these feedback reports as well as of research briefs which will inform policy-making by establishing context and baseline information. These products will extend beyond previous reports because all students will be tracked, not just graduates or completers, and will span all education sectors plus the workforce. Making the connection between education and social services is a new capability. In addition, there will be efficiencies gained by having a comprehensive system with a consolidated matching process. Funding will also allow concerted training and outreach efforts designed to ensure that a culture of data use develops around these products.

At present, the ERDC is limited to the analysis of Washington public-sector education data and Washington employment. With additional funding we propose to incorporate National Student Clearinghouse data into the P-20 data system to get a more complete picture of educational pathways of Washington students as they transition to postsecondary institutions, including those that are out-of-state and private.

As P-20 longitudinal data systems are developed, workforce data connections to K-12 and higher education agencies will become more pervasive. The creation of an employment data handbook, as it pertains to student outcomes and tracking, will be a resource for education researchers in other states and organizations who may be unfamiliar with employment and wage data. Although postsecondary institutions routinely make the connection to workforce outcomes, it is less common in the K-12 arena.

3. **Data Warehouse Development.** Data from multiple education sectors and the workforce are being brought in to the ESP-20 data system. Each data source has a specific data dictionary, and in many cases, definitions may vary across the sectors. The current ERDC system has grown informally, and, as staff have had the experience of managing the data, linking across sectors, and performing analyses, it has become

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imperative that a data environment be developed that is better suited to serve the needs of this work. Funding requested here covers the design and implementation of a data warehouse environment, beginning with a comprehensive data inventory across systems and development of a P-20 data dictionary, and culminating with the implementation of the data warehouse with a variety of data marts designed to support the research and reporting needs of ERDC. This data environment would be in place early enough in the grant period to allow for the development of key reports and research datasets before the end of the grant funding period.

4. **Data Interoperability.** The P-20 system will be bringing data in from multiple education sectors and workforce information. In order to improve system interoperability between the P-20 data warehouse and other data systems, a team will develop frameworks and procedures for the efficient and standardized exchange of data. For the K-12 and early learning arenas, this will adhere to the Schools Interoperability Framework (SIF).
5. **Source System Enhancements.** In order to improve the quality of data coming into the P-20 system and facilitate the implementation of interoperability (Outcome 4) for ESP-20 and future multi-state efforts, this proposal includes several projects that will enhance and improve source data systems.
  - The incorporation of community and technical college student data into the PCHEES system, which is currently limited to data from public four-year institutions. This will allow all public higher education to be analyzed as a single sector, and also will provide pre-processing of the data so that all public higher education data is provided to the P-20 data warehouse from a single source.
  - The development of a centralized program database at HECB that will improve monitoring of new programs and assist in the program review process. It will enable researchers and administrators to answer questions such as whether persistence or completion rates in the same or similar programs vary by location, delivery mode, or institution. It will also facilitate tracking of student enrollment patterns across sectors, identify gaps in regional program delivery, and help expand program diversity in targeted regions of the state. These questions are central to a major study just completed by the HECB. This study of the higher education system is intended to identify ways to raise educational attainment levels 40% by the year 2030.
  - The development of an early learning student information system that ties program, teacher, and outcomes to the early learning student. DEL was formed from multiple Washington State agencies in 2006 and the programs each had unique data needs, resulting in core data elements stored across multiple data systems and requiring duplicative data entry. This funding will assist DEL in reducing data silos and redundant efforts by integrating business line applications.
  - The improvement of the SBCTC system by converting from COBOL to SQL. In order to generate data required for State and DOE reporting, student and institutional data from 34 Colleges are maintained in 50 separate databases and over 1600 data files. The opportunity is to design, develop, and implement automated processes to extract and load data staging area that provides for efficiency of operation and reporting, supporting a stable, sustained robust state longitudinal data system. The current manual processes used to extract, analyze, and consolidate data from the

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- various sources (databases and data files) result in frequent delays and reporting inaccuracies.
- Improving student record collection for private vocational schools and other employer training providers. The quality of and efficiency of data collection could be improved through use of a dedicated site with data quality and usability improvements.

*Appendix C* outlines the statewide longitudinal data system requirements, along with the current status of that capability or element and the corresponding outcomes as proposed in this application.

### **Use of the System to Address Requirements of the State Fiscal Stabilization Fund and Race to the Top**

Receipt of State Fiscal Stabilization Funds requires commitment by the State to advance education reform in several areas. The P-20 system being developed in Washington will allow analysis of **teacher distribution** across the state with respect to teacher characteristics (experience, endorsements, years of teaching at current school, national certification status, etc.), school characteristics (urban/suburban/rural, high-poverty, etc.), and student characteristics (free- and reduced-price lunch eligibility, language spoken at home, mobility, program participation, etc.). ESP-20 will facilitate the measuring of outcomes for successive cohorts of students to assess continuous improvement. Detailed course-taking information for high school and postsecondary work, including remedial course-taking, **standards and assessments**, grades and course completion, will allow the evaluation of progress toward rigorous college- and career-readiness standards. Information for all students will be tracked in the system, including limited English proficient students and students with disabilities. All students will be followed, as much as possible, including those who drop out. This data will be used to make decisions regarding **struggling schools**.

One of the priorities is **expanding statewide longitudinal data systems** to include or integrate data from an assortment of areas, including special education programs, limited English proficiency programs, early learning, and postsecondary. The K-12 system already collects information on students in special education and limited English proficiency. ESP-20 will connect these students with their postsecondary and workforce outcomes, enabling questions regarding policy, practice, and efficacy to be answered. In addition it will be possible to track education and workforce outcomes for students who participate in state early learning programs and for social service clients.

With the proposed funding, ESP-20, in conjunction with the K-12 longitudinal data system, will help meet data systems criteria as outlined in State Fiscal Stabilization Fund and Race to the Top. The systems will include all of the elements specified in America COMPETES (section 6401(e)(2)(d)). Also consistent with the criteria, Washington's proposed grant funding includes outreach to share information, gather input, and distribute data from the longitudinal data system to key stakeholders. There are also tasks as part of the data governance, research and reporting, and data warehouse outcomes that define and emphasize confidentiality and privacy in order to ensure compliance with FERPA requirements.

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**(b) Project Outcomes Related to System Requirements and Implementation**

Proposed activities to be covered by grant funds fall into six major categories: (1) data governance, (2) research and reporting, (3) data warehouse development, (4) data interoperability, and (5) source system enhancements.

**Outcomes were created based on the capabilities and elements needing development or improvements.**

		Data Governance (1)	Research and Reporting (2)	Data Warehouse (3)	Interoperability (4)	Source System Enhancements (5)	
<b>7 capabilities</b>	C1 Examine student progress over time	X	X	X	X	X	
	C2 Facilitate / enable exchange of data	X			X	X	
	C3 Link student data with teachers	*					
	C4 Teachers linked to certification & prep	*					
	C5 Data easily generated -timely reporting		X	X			
	C6 Data quality - integrity			X			
	C7 Meet reporting requirements	*					
<b>12 elements</b>	<b>P-20</b>	E01 Unique student ID			X		
		E02 Enrollment, demographic, program info			X	X	
		E03 Exit, transfer, drop-out, completions			X		X
		E04 Communicate with HE systems			X	X	X
		E05 Data audit system			X		X
	<b>K-12</b>	E06 K-12 Assessment records	*				
		E07 Students not tested	*				
		E08 Teacher ID system					
		E09 Transcript info (courses, grades)					
		E10 College readiness scores					
	<b>Post-sec.</b>	E11 Transition to post-sec (including remedial)			X	X	X
		E12 Other info re prep for post-sec			X		

\* Completed or underway by OSPI K-12.

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### 1. **Data Governance: Activities leading to multiple-agency data sharing agreements, as well as a data use and review process, and establishment of a data request process.**

These data governance activities are critical to facilitating the exchange of data between ERDC and other Washington education agencies, policy makers, and external researchers. The tasks associated with the data governance outcomes will generate a clear process that will accelerate the ability to share linked individual-level data.

#### 1.1 Interagency data sharing agreements

While data-sharing agreements have been formulated for ERDC to receive data from contributing agencies, new protocols need to be established for external sharing of the linked data. Questions need to be addressed such as:

- Which data can be shared with whom and under what circumstances
- What are the definitions of “de-identified” and “unidentified”
- What steps must be taken by the data owners, ERDC, and other researchers to ensure that privacy laws and confidentiality agreements are upheld
- What level of aggregation is appropriate to assure student confidentiality, i.e., if individual level data is shared, how much identifying information must be removed

Answers to these will be determined by convening a workgroup composed of representatives from agencies contributing data and the data governance manager. To strengthen the protocols, the workgroup will seek opinions regarding data sharing from the appropriate assistant attorneys general. The result of these activities will be signed data sharing agreements, allowing linked data to be shared from the ESP-20 system to agencies and to researchers, although the level of detail and types of restrictions will vary.

#### 1.2 Data use agreements and review process

The workgroup will also need to establish policies around appropriate use of data in research and reporting. In other words, once an agency or a researcher has received data from the P20 system, what are they allowed to do with it? Also, if they report or publish data that originated from another source, what review process is appropriate?

Building from the agreements established in Outcome 1.1, the workgroup will convene to develop a review process.

For each data request or data set: is the shared data to be used for a single purpose or can it be used more generally or repeatedly; should the data be destroyed upon completion of a project; when an agency or researcher plans to produce information that originated with another agency’s data, what level of review is appropriate, if any, by the data owner? (This question also applies if there is overlapping information, such as if outcomes from one sector are being reported by characteristics from another sector.); the product will be a written protocol outlining the review process as well as data use agreement templates.

#### 1.3 Data request process

This outcome will delineate the process for requesting data. The governance workgroup will establish a process for data requests in conjunction with the data sharing agreements

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and use protocols as established in Outcomes 1.1 and 1.2 above. The data governance manager will convene a workgroup with representatives from agencies contributing data. The workgroup will address questions such as which agencies ought to have representatives on the committee to review requests, who needs to review a given request and under what circumstances (depending on which data are involved), what will be the requirements for requestors (confidentiality training, data sharing and use agreements, etc), and what criteria will be used for approving requests. Based on the workgroup's recommendations, the data governance manager will develop documents, including a description of the proposed process and request forms. These forms will outline which data are available for what timeframes, intended use, and confidentiality restrictions, etc.

One feature of this data governance process may be a data-sharing "clearinghouse" which would be a centralized location for data-sharing requests and agreements. Once finalized, the data request documentation will be made available online.

### **2. Research & Reporting: Design and development of products (standard and ad hoc reports, datasets, analyses) that will inform policy and practice for a variety of decision-makers at the school, institution, and state policy-making level.**

Concurrent with the production of the data warehouse (Outcome 3), ERDC and project analysts will be able to extract data from the staging area, a location for data that has been received but not formalized into the data warehouse. After the conclusion of the grant, the data warehouse and data marts will enable data to be generated easily, enabling efficient analyses. In the meantime, the wealth of available data can be accessed and linked, though not as efficiently. The research and reporting outcomes – summary findings that can help inform policy decisions, local level reports detailing student outcomes and achievements, and research data sets – will create value during the grant funding period by improving the timeliness of the information produced and usability of the assembled data.

#### **2.1 Feedback reports (outcomes reporting back to high schools, community and technical colleges, baccalaureate institutions)**

Information about students transitioning in and out of education sectors will be compiled in the form of feedback reports. Reports will be designed to show aggregate outcomes for students leaving education sectors. For example, a report will be made available to high schools and school districts with information about how many students enrolled in public baccalaureate institutions or community or technical colleges, how many enrolled in remedial coursework, whether they are employed, if they persisted in college, if they earned a degree, etc. Reports will have information about both completers and non-completers; that is, high school drop-outs will be tracked as well as graduates. This information can be disaggregated at numerous levels: race/ethnicity, income level, college majors including high need areas, high school grade point average or class standing percentile, college readiness scores (ACT, SAT), high school course-taking, and other characteristics. Planned reporting includes:

- a) K-12 reports – tracking into postsecondary education and workforce
- b) Community and technical colleges – tracking into baccalaureate institutions, workforce training, and the workforce

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c) Baccalaureate institutions – tracking into workforce and other education  
There are numerous other reports that could be developed with the data that will be assembled in the P-20 data system. These include tracking early learning students into the K-12 system as well as following the high school, postsecondary, and ultimately the employment outcomes of middle school students based on their characteristics. These reports will be publicly available on a website. Where confidentiality is a concern (e.g., cell sizes are small enough to permit students to be identified) but data sharing agreements have been established, the feedback reports will be distributed in a secure manner. Alternatively, smaller-sized cells could be redacted in the published reports.

### 2.2 Research briefs and derived indicators

Research will be conducted on some of the key areas thought to affect student achievement.

- a) Outcomes of high school dropouts. Research often focuses on the outcomes of high school graduates, but doing so overlooks an important segment of the population. This brief will address questions such as what are the college enrollment and workforce patterns of students who drop out of high school, and how do they compare to students who receive a high school diploma.
- b) Extended longitudinal tracking of high school students' outcomes. By the conclusion of the grant period, ERDC will have ten years of tracking information on a 9<sup>th</sup> grade cohort and will be able to follow their progress through high school, postsecondary enrollment, and into the workforce. This research brief will track those outcomes for a 9<sup>th</sup> grade cohort.
- c) Teachers and employment transitions.
- d) Teacher characteristics related to student and school characteristics.
- e) Outcomes of college and university drop-outs and stop-outs. This brief will address questions such as whether they enter the workforce or if they return to college after a period of time. Similarly, do more students in certain regions of the state drop-out or stop-out, compared to other regions? Are there differences across certain major fields of study?

### 2.3 Research data sets

De-identified individual record or summary level data sets will be shared with state agencies and other researchers, pending completion of the data governance outcomes (Outcome 1). The data sets will have information spanning the education sectors and will be customized according to the needs of the researcher and data use agreements. In many circumstances data on comparison groups can be incorporated as a necessary component of program effectiveness assessment. Several format options will be available for data sets and secure file transfer protocols will be employed when individual-record data sets are transferred to partner agencies and external researchers.

### 2.4 Training and outreach

Training and outreach activities are designed to contribute to a culture of data use. A stakeholder needs analysis will be conducted by convening meetings and attending conferences to communicate the capabilities of ESP-20 to teachers, principals,

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administrators, policy makers, and other interested parties. Concurrently, ERDC or project staff will gather input about effective ways to disseminate the information that can be produced by the comprehensive system. ERDC will solicit ideas regarding which data elements and student outcomes ought to be included in feedback reports and which issues should be researched given new data capabilities. It will be an evolving process: as new data and reports become available, additional input will be needed to refine the information and improve its value to stakeholders.

### 2.5 Social services data-to-information project

Programs of the Washington State Department of Social and Health Services (DSHS) have extensive education data needs for monitoring outcomes for clients who receive services and for evaluating the success of specific programs and interventions. To address these needs, several performance measurement projects and research studies are being proposed. The projects address expressed needs of managers, and include the completion of controlled research studies and the development of sustainable processes and annual reports to answer the following questions:

- a) What are the K-12 and higher learning outcomes for DSHS parents and children receiving economic assistance?
- b) How are youth receiving mental health treatment doing in school?
- c) What is the long-term impact of the integrated treatment model on educational outcomes for serious juvenile offenders?
- d) Are youth receiving chemical dependency treatment more likely to complete school than those who need treatment and do not receive it?
- e) Are children of incarcerated parents at higher risk for low grades, poor school attendance and dropping out of high school than other youth with social services involvement?

### 2.6 Employment data handbook

Washington State has a history of analyzing employment data as an outcome for students and will capitalize on that experience to develop a guide for other states and organizations that are unfamiliar with the workforce data realm. Although postsecondary institutions routinely make the connection to workforce outcomes, it is less common in the K-12 arena. As P-20 longitudinal data systems are developed, workforce data connections to K-12 and higher education agencies will become more pervasive.

This handbook is intended to serve as a guide to education researchers interested in analyzing and incorporating workforce data into their data systems or research agendas. The product will be designed for other states and organizations based on Washington's extensive experience working with employment data and developing standardized follow-up protocols. Multiple Washington agencies have collaborated in developing employment analyses. The manual would include topics such as organizational and governance issues; technical issues, methods and solutions; and functionality and products. It will provide background information on Unemployment Insurance data, describe the information that is typically available from state labor market information agencies and the research that can result, as well as will outline the steps needed to clean, refine, and standardize the information.

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### 2.7 National Student Clearinghouse

Data will be incorporated into ESP-20, expanding the ability to track Washington student enrollment into post-secondary nationally.

### 3. **Data Warehouse Development: The development of a data warehouse environment that will allow more efficient access to longitudinal data.**

This cluster of outcomes will develop or accelerate three of the required data system capabilities: abilities to assess student progress over time, to generate data easily, and to ensure data quality and integrity. By incorporating data from multiple sources into a single system that spans the education spectrum and includes employment information, the tracking of student progress will be greatly enhanced and analyses will be more efficient. Required data system elements will also be improved or developed: a unique student identifier (research id); a cohesive set of enrollment, demographic and program information; outcome information including completions, exits, and transfers; synthesis of K-12 elements with information from the public Washington higher education system; and tracking of transitions, including remedial course-taking.

#### 3.1 Data inventory

This will entail a comprehensive profile of the various source data available for the data system, including 1) a review of education-related data definitions and relationships articulated in national data interoperability frameworks (e.g., SIF, PESC); 2) an analysis of the research and reporting needs of the ERDC, its partners, and other researchers; and 3) a review of education-related data definitions and relationships. An inter-agency team of researchers, coordinated by an ERDC data steward, will identify and document key information about the data elements required for longitudinal research. The data inventory will encompass the multiple sectors that will be contributing data to ESP-20: early learning programs, K-12, public higher education, and workforce.

#### 3.2 P-20 data dictionary

A comprehensive data dictionary and logical data design for the data warehouse will be developed from information gathered in the data inventory. The information in the dictionary will span the P-20 arena and included workforce elements. The logical data design will identify the relationships among the data elements in the data warehouse. The data dictionary will articulate standard definitions, data types, valid values, data relationships, business rules, and data sources for all elements in the data warehouse environment. Wherever possible, standards and definitions will be cross-walked to those established with the National Center for Education Statistics Schools Interoperability Framework (SIF) and Postsecondary Electronic Data Council (PESC). The business rules will include information to resolve the complex issues that can arise from using longitudinal and cross sector data, such as self-stated race coding in a postsecondary record as compared to race coding in a K-12 record which may be observer-based.

#### 3.3 Database environment

The data dictionary, data inventory and logical data design will be used to create a data warehouse as well as document the requirements for the integration procedures needed to load and link data within the warehouse. A team of ERDC staff, database administrators and developers will design and build a data warehouse that supports longitudinal research

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and reporting across the P-20 spectrum, including workforce. An inter-agency team will produce design requirements for integrating source data into the data warehouse.

### **3.4 Integrating source data into data warehouse**

From business requirements and technical specifications provided by an inter-agency design requirements team, a development team coordinated by the data warehouse project manager will develop a confidential data warehouse staging area. The team will develop procedures for validating, cleaning, conforming, and de-personalizing source data (e.g., K-12 data transferred from OSPI's CEDARS data warehouse) prior to its transfer to production-ready data marts in the data warehouse.

Previously developed procedures will allow the incorporation of an ESP-20 universal research ID permitting cross-sector linking of student records in the system in an anonymous fashion. Resolution protocols for situations where there is conflicting information between sectors (e.g., different ethnicity/race classification) will be established and incorporated into the business rules of the data dictionary.

### **3.5 Data marts**

Data marts, or specific subject-oriented repositories of data, will be developed by consolidating and aggregating information from multiple original data tables. By consolidating related fields that may span multiple original data tables in a logical way, the marts will enable efficient information extraction. They will also contain derived data elements, such as flags for longitudinal outcomes and annual or career calculations.

An interagency team of researchers will contribute to the design of the marts and determination of subject areas. For example, one data mart will likely support the study of postsecondary swirl, the transition in and out of one or more higher education institutions during the course of a student's postsecondary career.

A data warehouse environment structured around the data marts will facilitate research, reporting, and ad hoc queries. The organization of data marts will enable more efficient construction of data sets for sharing with external researchers (Outcome 2.3, as agreed upon in Outcomes 1.1 and 1.2).

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4. **Data Interoperability: Facilitating and enabling the efficient exchange of data between ERDC and partner agencies. Based on business requirements and technical specifications provided by the data warehouse design requirements team, an interagency development team coordinated by the ERDC data systems manager will develop frameworks and procedures for the exchange of data between the data warehouse and other data systems.**

4.1 K-12/ Office of Superintendent of Public Instruction

4.2 Department of Early Learning

4.3 State Board for Community and Technical Colleges

4.4 Higher Education Coordinating Board

4.5 Employment Security Department

4.6 Workforce Training and Education Coordinating Board

Develop standardized coding and formatting methods and documentation for regularly transferring participant records from Private Career Schools, other providers participating in the Eligible Training Provider System, and Apprenticeship programs.

5. **Source System Enhancements: Enhancements that strengthen or augment systems supplying data to the P-20 data warehouse.**

5.1 Integration of community and technical college data into PCHEES

A team of data administrators and developers will integrate data from the student data warehouse managed by the State Board for Community and Technical Colleges into PCHEES, the enrollment and outcomes system for public baccalaureate higher education and into the proposed P-20 data warehouse.

5.2 Higher Education Coordinating Board program database

This project will consolidate information from multiple sources to ensure a single accurate source of program information and will allow administrators and researchers to access data on specific programs rather than only looking at broad program areas. Currently the Higher Education Coordinating Board (HECB) has three sources of data related to degree programs that are not linked in a single database. First, HECB is responsible for approval of new degree programs offered by the public baccalaureate institutions in Washington, including information about the status of proposed programs and changes to previously approved programs. Second, HECB is the State Approving Agency for the use of veteran's GI Bill benefits. In this role HECB maintains a database of all degree programs in the state that are approved for Veteran's benefits. Third, HECB is responsible for authorization of institutions of higher education to operate in Washington. Under this proposal these functions would be brought together under a single data system that could then be linked to the ESP-20 longitudinal data system. Synthesizing these will yield a single authoritative statewide degree program inventory which will provide accurate information on program availability and program success. It will enable researchers and administrators to answer questions such as do persistence or completion rates in the same or similar programs vary by location, delivery mode, or institution.

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### 5.3 Department of Early Learning student information system.

This improvement to the Department of Early Learning's (DEL) student information system will result in an online system for data collection, management, and reporting that replaces the antiquated Early Childhood Education and Assistance Program (ECEAP) system and expands to include all children in early learning. The development of the system will involve aligning data standards and definitions across disparate data sources within DEL, and will result in a data dictionary and user manual for the DEL system. This project also involves the migration of historical ECEAP data into the new Early Learning Student Information System.

### 5.4 SBCTC data system enhancements

Funding would provide resources to create a data staging area to extract college data from the legacy systems and load into a college longitudinal database for automating data base interoperability among all 34 colleges, the SBCTC, other educational sectors, and the state's Education Research and Data Center. This repository will interoperate with data warehouses that integrate student, staff, financial and facility data. This will provide stakeholders with timely college data and will be designed to meet multiple stakeholder needs.

Currently data are retrieved from colleges monthly and most student data quarterly. This proposal will enable data to automatically be retrieved daily if required. Data errors can be identified and corrected before being reported to the state or federal government.

### 5.5 Workforce Training and Education Coordinating Board (WTECB) upgrade - improve data collection for private schools and training providers.

These improvements will add functionality to existing web-based systems that are used to communicate with training providers participating in the Private Vocational Schools (PVS) and Eligible Training Provider (ETP) systems. The improvements will facilitate uploading and validating participant records, including the ability to compare with prior records and to update rather than re-enter records for continuing students. The Workforce Board will add secure direct-entry student screens for use by the smaller and less technologically sophisticated schools, and a secure ftp site for the more sophisticated schools.

Once completed, the ESP-20 data system will meet the seven required capabilities and the twelve required elements outlined in the Request for Applications.

An illustration showing the flow of data into the P-20 longitudinal system, as well as representations of how the project outcomes fit into the picture, is in Figure 1 of *Appendix A*.

## **(c) Timeline for Project Outcomes**

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Task number, task, (number of months), *estimated start and finish months*, [party/parties responsible]

### **1 P-20 Data Governance**

#### **1.1 Interagency data sharing agreements (to share linked data) [ERDC + partner agencies]**

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1.1.1 Convene workgroup to get consensus on data sharing restrictions and requirements to maintain confidentiality (12 mos) *Jul 2010 – Jun 2011*

1.1.2 Get necessary approvals and AG opinions (6 mos) *Jan – Jun 2011*

1.1.2 Draft data sharing agreements & sign (3 mos) *Apr – Jun 2011*

### 1.2 Data use agreements and review process [ERDC + partner agencies]

1.2.1 Convene workgroup, develop appropriate data use (9 mos) *Jan – Sep 2011*

1.2.2 Draft protocol that outlines rules and review process (3 mos) *Oct – Dec 2011*

1.2.3 Gather input and finalize review data use protocol (3 mos) *Jan – Mar 2012*

### 1.3 Data request process [ERDC + partner agencies]

1.3.1 Convene workgroup to develop request process (who needs to review a request; what are requirements of requestor) (9 mos) *Jan – Sep 2012*

1.3.2 Develop documents from workgroup recommendations (3 mos) *Oct – Dec 2012*

1.3.3 Post data request documentation online (3 mos) *Jan – Mar 2013*

## 2 P–20 Research and Reporting

### 2.1 Feedback reports

2.1a K–12 reports: tracking into postsecondary education and workforce [ERDC, OSPI]

2.1a.1 Design report contents including gathering stakeholder input (6 mos) *Jul – Dec 2010*

2.1a.2 Develop interim report (3 mos) *Jan – Mar 2011*

2.1a.3 Incorporate input on findings and format (3 mos) *Apr – Jun 2011*

2.1a.4 Revise and disseminate interim reports (3 mos) *Jul – Sep 2011*

2.1a.5 Develop report from dw environment (6 mos) *Jan – Jun 2013*

2.1b Baccalaureate institution reports: tracking into or education and workforce [ERDC]

*Tasks, timing as outlined in 2.1a above, but starting 1/2011 Jan 2011 – Jun 2013*

2.1c CTC reports: tracking into 4–yr institutions, workforce *Jul 2011 – Jun 2013* [ERDC, SBCTC]

*Tasks, timing as outlined in 2.1a above, but starting 7/2011*

### 2.2 Research briefs and derived indicators [ERDC]

2.2a–e 5 research briefs: Outcomes of high school dropouts (3 mos each) *Oct 2010 – Dec 2011*

2.2f Derived indicators

2.2f.1 Gather input from data owners and stakeholders (4 mos) *Jan – Apr 2012*

2.2f.2 Develop interim measures (4 mos) *May – Aug 2012*

2.2f.3 Get feedback on findings and format (2 mos) *Sep – Oct 2012*

2.2f.4 Derive indicators from dw environment (4 mos) *Jan – Apr 2013*

2.2f.5 Produce indicators in electronic format (2 mos) *May – Jun 2013*

### 2.3 Research data sets [ERDC]

2.3.1 Data needs assessment (input from stakeholders) (3 mos) *Jul – Sep 2010*

2.3.2 Disclosure analysis research (3 mos) *Oct 2010 – Dec 2012*

2.3.3 Compile de-identified data into flat file (interim datasets) (3 mos) *Jan – Mar 2011*

