

U.S. Department of Education

Washington, D.C. 20202-5335



**APPLICATION FOR GRANTS
UNDER THE**

Statewide, Longitudinal Data Systems

CFDA # 84.372A

PR/Award # R372A120007

Grants.gov Tracking#: GRANT11025793

OMB No. , Expiration Date:

Closing Date: Dec 15, 2011

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Application for Federal Assistance SF-424

* 1. Type of Submission:

- Preapplication
 Application
 Changed/Corrected Application

* 2. Type of Application:

- New
 Continuation
 Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

12/14/2011

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

AK Dept. of Ed. & Early Development

* b. Employer/Taxpayer Identification Number (EIN/TIN):

926001185

* c. Organizational DUNS:

8093868240000

d. Address:

* Street1:

P. O. Box 110500

Street2:

* City:

Juneau

County/Parish:

* State:

AK: Alaska

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

99811-0500

e. Organizational Unit:

Department Name:

AK Dept. of Ed. & Early Develo

Division Name:

Teaching and Learning Support

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

Prefix:

Ms.

* First Name:

Stephanie

Middle Name:

* Last Name:

Butler

Suffix:

Title:

Director of Program Operations

Organizational Affiliation:

Alaska Commission on Postsecondary Education

* Telephone Number:

907-465-6743

Fax Number:

907-465-3293

* Email:

STEPHANIE.BUTLER@ALASKA.GOV

Application for Federal Assistance SF-424

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

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

U.S. Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.372

CFDA Title:

Statewide Data Systems

*** 12. Funding Opportunity Number:**

ED-GRANTS-092011-001

* Title:

Institute of Education Sciences (IES): Statewide, Longitudinal Data Systems Program CFDA Number 84.372A

13. Competition Identification Number:

84-372A2012

Title:

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

Add Attachment

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

Link postsecondary and workforce data to the State's K-12 data system for Alaska P-20W Statewide Longitudinal Data System

Attach supporting documents as specified in agency instructions.

Add Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant b. Program/Project

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

 17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="4,000,000.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="4,000,000.00"/>

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

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

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)** Yes No

If "Yes", provide explanation and attach

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

 ** I AGREE

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

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

ASSURANCES - NON-CONSTRUCTION PROGRAMS

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

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

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

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

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

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

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> <p>Stephanie Butler</p>	<p>* TITLE</p> <p>AK Commissioner of Dept. of Ed. & Early Devel</p>
<p>* APPLICANT ORGANIZATION</p> <p>AK Dept. of Ed. & Early Development</p>	<p>* DATE SUBMITTED</p> <p>12/14/2011</p>

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

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

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

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

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

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

Statement for Loan Guarantees and Loan Insurance

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

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

* APPLICANT'S ORGANIZATION

AK Dept. of Ed. & Early Development

* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: Mr. * First Name: Michael Middle Name:

* Last Name: Hanley Suffix:

* Title: AK Commissioner of Dept. of Ed. & Early Devel

* SIGNATURE: Stephanie Butler

* DATE: 12/14/2011

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

1. Project Director:

Prefix: * First Name: Middle Name: * Last Name: Suffix:
 Ms. Stephanie J Butler

Address:

* Street1: P. O. Box 110505
 Street2:
 * City: Juneau
 County:
 * State: AK: Alaska
 * Zip Code: 99811
 * Country: USA: UNITED STATES

* Phone Number (give area code) Fax Number (give area code)

(907) 465-6743

(907) 465-329

Email Address:

STEPHANIE.BUTLER@ALASKA.GOV

2. Applicant Experience:Novice Applicant Yes No Not applicable to this program**3. Human Subjects Research**

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

 Yes No

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

 Yes Provide Exemption(s) #: I.B.(1) and I.B.(4) No Provide Assurance #, if available:**Please attach an explanation Narrative:**

Ed Supplemental Information for SF-424.pdf

Delete Attachment

View Attachment

DEPARTMENT OF EDUCATION SUPPLEMENTAL INFORMATION FOR SF-424
SLDS Recovery Act Grants Application

The proposed research is exempt under I.B.(1) based on its being specifically designed to improve instruction by comparing data, such as graduation rates among different student populations. The research further qualifies for exemption under I.B.(4) based on its using only existing data which will have all personally identifiable information stripped, and will also be subject to other controls such as small cell suppression, to ensure subjects cannot be individually identified, directly or indirectly.

Abstract

The abstract narrative must not exceed one page and should use language that will be understood by a range of audiences. For all projects, include the project title (if applicable), goals, expected outcomes and contributions for research, policy, practice, etc. Include population to be served, as appropriate. For research applications, also include the following:

- Theoretical and conceptual background of the study (i.e., prior research that this investigation builds upon and that provides a compelling rationale for this study)
- Research issues, hypotheses and questions being addressed
- Study design including a brief description of the sample including sample size, methods, principals dependent, independent, and control variables, and the approach to data analysis.

[Note: For a non-electronic submission, include the name and address of your organization and the name, phone number and e-mail address of the contact person for this project.]

You may now Close the Form

You have attached 1 file to this page, no more files may be added. To add a different file, you must first delete the existing file.

* Attachment:

Abstract: Alaska Statewide Longitudinal Data System

The Alaska Department of Education and Early Development (DEED) is applying for \$4,000,000 over three years from the Institute for Education Sciences Grants for Statewide Longitudinal Data Systems under CFDA Number 84.372, and will contribute \$1,678,746 in kind for the Alaska SLDS project. DEED is proposing the linking of Alaska's current K-12 data system with postsecondary and workforce data, a Priority 3 application. This effort will provide critical information to Alaska's policymakers, educators, and general public about Alaska's education pipeline, including student transitions and performance in postsecondary education and workforce systems.

The Alaska State Longitudinal Data System (Alaska SLDS) will initially link data from the Alaska Department of Education and Early Development (DEED), the Alaska Commission on Postsecondary Education (ACPE), the University of Alaska, and the Alaska Department of Labor and Workforce Development (DOLWD). The data will include K-12 student demographics, program participation, assessments, performance, financial aid, and interventions; postsecondary enrollment, remediation, and success; teacher preparation, demographics, certification, and employment data; and information about individuals' employment, their related industry, employer information, and earnings, among other data-related elements. In addition, Alaska's DOLWD collects information on workers' occupations, unique to only a handful of states, and will incorporate this data in order to better link educational efforts to labor force demands. DEED will serve as fiscal agent; however, the system will be built and maintained by ACPE and function under the direction of a multi-agency governance structure.

The primary function of the Alaska SLDS is to build upon the efforts of Alaska's agencies to create a cohesive state data system and a data governance model that fosters a climate that supports data sharing to meet the state's information needs for understanding and improving state policy. In order to do this, the project is divided into six phases: (1) plans for development of the system; (2) create the SLDS hardware and software environment; (3) develop the longitudinal data system; (4) create reports and a portal to make information available; (5) provide extended training to help users access and utilize the data to better inform policy and practice to improve educational and workforce outcomes; and (6) create and implement a sustainability plan. The primary overarching goals of this project are to:

- develop a governance model with a team of leaders engaged in the practice of using data to inform decision making and who understand the value of this process for the state;
- create a secure, state longitudinal data system that allows data about K-12 students, teachers, college students, and industry to be linked together accurately and securely so they can be used to better understand and inform policy makers on the education to workforce cycle; and
- create reports, dashboards, and other information products that provide the right information to the right people in the right formats to better inform research and policy making; provide support to help the data users better utilize the system to improve education and workforce outcomes in Alaska; and, increase transparency around educational outcomes, generally.

Project Narrative File(s)

* Mandatory Project Narrative File Filename:

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

ALASKA STATEWIDE LONGITUDINAL DATA SYSTEM

Project Narrative

On behalf of the state of Alaska, the Alaska Department of Education and Early Development (DEED) is applying for \$4,000,000 from the Institute for Education Sciences (IES) Statewide Longitudinal Data Systems grant under Priority 3 for linking Alaska's K-12 data system with postsecondary and workforce data in order to provide policymakers and educators needed information about the linkages across the education and workforce systems. Total project costs are budgeted at \$5,678,746, with the difference being allocated to ACPE as in-kind contributions to the project.

A) NEED FOR THE PROJECT

As an expansive and geographically challenging state with a resource extraction-based economy, Alaska faces a number of unique challenges. In the early decades of this relatively young state's history there was a wealth of high-wage jobs that required minimal education beyond high school, luring many young Alaskans into the workforce instead of pursuing postsecondary education. This situation has encouraged a high in-migration of nonresident workers who compete for jobs requiring higher skills and education, but who are not permanent Alaska residents. Nearly 20% of workers in Alaska each year migrate from outside the state. While some level of nonresident hiring is to be expected, such high rates impose costs to the state, and emphasize the need to prepare Alaska youth for high-wage employment opportunities in more highly skilled jobs.

This influx of highly skilled and trained workers has resulted in Alaska having one of the highest proportions of adults age 25 and over with a high school diploma or above (90 percent).¹ However, the outcomes for resident youth are not as encouraging. Alaska is ranked 51st in the nation in the rate of high school graduates going to college (45.7%)² and has the second highest public high school dropout rate in the nation (7.3%).³ The picture is clear – many jobs requiring higher skills and education are being filled by nonresidents, while Alaska ranks at or near the bottom in training its own residents. Alaska ranks 42nd in terms of the percentage of ninth graders who graduate from high school,⁴ and 50th in terms of the number of ninth graders who complete a bachelor's degree within ten years.⁵

Low levels of educational attainment clearly have an implication for employment opportunities for Alaska's youth. Although our statewide unemployment rate remains well below the national average, we have the 13th highest rate of 16 to 19-year-olds not in school and not working.⁶ This situation is even more troubling as we consider future employment prospects in the state. The Alaska Department of Labor and Workforce Development (DOLWD) projects that for those jobs with the brightest growth prospects and greatest number of openings over the next ten years that

¹ NCES Digest of Education Statistics: 2010, Table 11.

² NCES Digest of Education Statistics: 2010, Table 211.

³ NCES Digest of Education Statistics: 2010, Table 113.

⁴ NCES Trends in High School Dropout and Completion Rates in the United States: 1972-2008, Table 13.

⁵ Research conducted by NCHEMS, based on NCES data.

⁶ Annie E. Casey Foundation, Kids Count Data Center, information for 2007.

pay above median wages, over one-half will require at least an associate's degree, and one-third will require a bachelor's degree or greater. Teen dropouts lacking employment opportunities are the root cause of even more devastating social ills in Alaska. Our child and teenage injury/death rate is the highest in the nation – 70% higher than the national average.⁷ Suicide and attempted suicides are the leading cause of death and hospitalization among 15 to 19-year-olds in Alaska.⁸

Obviously, many opportunities exist to improve Alaskans' quality of life by improving educational opportunities and outcomes that prepare our youth for highly-skilled, high-paying jobs. To effectively leverage these opportunities, however, data sharing and analysis must occur among the state's K-12, postsecondary and labor force agencies to ensure potential workers have the opportunities and resources required to enhance their skills and knowledge in those areas in demand in the labor market. Alaska has been building the infrastructures to better collect and utilize data about students in our systems, with technical support and guidance from the IES SLDS program. Still, the data infrastructures that would allow us to understand how people transition from sector to sector are too limited in terms of capacity to provide the kinds of data needed to adequately inform policymakers and educators.

Education Funding and Outcomes

While in some states poor educational outcomes may be associated with lower levels of funding, this is not the case in Alaska. Providing educational services in Alaska is expensive. The system serves a largely rural, geographically isolated population. More than one-quarter of Alaska's 500 public schools serve fewer than 50 students. One school district covers more square miles than the state of Minnesota yet serves fewer than 2,000 children spread across ten villages. Providing high quality educational resources across all these small schools is expensive and challenging. Many school consolidation efforts possible in other states simply have not been a possibility in Alaska because of its size and geography.

Given this challenge, it is not surprising Alaska has one of the highest education funding levels in the country. Alaska ranks first in terms of per capita funding of state and local government dollars for education for all educational general expenditures (\$4,387 per capita compared to the U.S. average of \$2,717), second in elementary and secondary expenditures (\$3,258 compared to the U.S. average of \$1,860) and eighth in terms of college and university expenditures (\$1,004 compared to the U.S. average of \$734).⁹ According to the Delta Cost Project, Alaska currently spends more than twice the national average to produce a credential at four-year institutions -- \$141,705 at public research institutions and \$107,398 at public comprehensive universities, compared to national expenditures of \$64,179 and \$54,167, respectively. This is about four and one-half times as much to produce a credential at a community college -- \$223,231 on average per credential compared to \$46,759 nationally.

With funding levels near the top of the nation producing such low outcomes in terms of educational attainment, Alaska needs better information to find ways to serve every student more effectively. This requires data that cross agency boundaries and the ability to follow students as they transition from K-12 to postsecondary and into the workforce. It is impossible to increase

⁷ Annie E. Casey Foundation, Kids Count Yearbook, 2010.

⁸ Annie E. Casey Foundation, Kids Count Yearbook, 2006-2007, 2010.

⁹ NCES Digest of Education Statistics: 2010, Table 32.

college-going rates without a good idea of which students are least likely to attend college and which students and schools need to be the focus of attention. It is also impossible to understand where alignment issues exist between the education systems and employment needs without first identifying and understanding what types of students are entering and staying in the workforce, and what the job markets require for the workforce of the future.

Alaska Data Systems

Alaska has longitudinal data systems within each of the four participating agencies (DEED, ACPE, UA, and DOLWD) for this project. These will serve as the foundation blocks for the Alaska SLDS. The system will integrate data from these four sources. This initiative is well-timed given the recent amendments to the Family Education Rights and Privacy Act (FERPA). The revised regulations provide guidance to the SLDS project by clarifying Alaska's abilities to share data across agencies, and the responsibilities the state assumes by doing so. The clarification of FERPA occurred at an opportune time as we work to build an efficient, powerful and protected system to perform longitudinal research in the state.

K-12 Data Systems

In FY06, DEED received a \$3.5 million award from the IES, to build a statewide K-12 longitudinal data system. This fueled a statewide effort to meet NCLB's present and future challenges regarding education data by unifying over 20 disparate data collections, involving schools using myriad reporting methodologies, into one unified data structure, utilizing uniform reporting methods, and delivering accurate, timely and accessible K-12 student-level data to stakeholders. A major goal of that undertaking, the Unity Project, was to create a statewide longitudinal system for Alaska's K-12 students to allow for more effective decision-making among K-12 professionals. The K-12 SLDS goal was broad in scope with a total of seven phases, only the first four of which were funded in the FY06 federal grant. Although the federal grant period has ended, Alaska has continued work on Phases V and VI. Components of Phase VII, specifically the certified and classified staffing data collections, were completed in Phase IV. The completion of Phase VII will allow staff to facilitate linkages between teachers and the students they teach. Regulations are currently being promulgated to define the components of rigorous curricula as they relate to eligibility for the state's new merit based scholarship. It is expected that efforts to collect student transcript data and teacher linkages will be significantly enhanced as the state's new Alaska Performance Scholarship (APS) becomes part of the Alaska education culture. However, it is also imperative that momentum on the Alaska SLDS project not be slowed as the state fully implements APS. The next logical step is linking the increasingly robust OASIS (Online Alaska School Information System) data sets with postsecondary and workforce data, so Alaska can answer pressing policy questions to determine what works and better allocate increasingly scarce resources to maximize student opportunity for success.

The deployment of OASIS accomplished several goals critical to the functionality of a P-20W¹⁰ longitudinal data system. It electronically eliminated barriers to district-level reporting and

¹⁰ Relative to P-20W linking, it should be noted that pre-school in Alaska is provided in a de-centralized fashion and will be addressed in a later expansion effort relative to SLDS. Nevertheless, SLDS development in Alaska will be undertaken with the expectation that pre-kindergarten information will be included in the future.

created statewide data snapshots. It also enhanced the state-level framework for collecting individually identifiable records for all public K-12 students by automating and establishing common protocols for the process. Alaska proposes to leverage the foundational K-12 work to design and deploy the K-12 SLDS into other areas of education, including institutions of higher education, and to coordinate with other state agencies to track student outcomes once they leave Alaska's education system and progress (or fail to progress) on to additional education or employment. DEED work to date on OASIS, cultivated stakeholder buy-in—an essential element given Alaska's isolated districts and historically disparate methods for sharing information.

These prior efforts have set the stage and the State of Alaska considers this new proposal a priority, recognizing the importance of moving forward now with the SLDS expansion to avoid the costs associated with delaying progress and the risk of losing momentum.

Postsecondary Data Systems

As the context within which postsecondary data is proposed to be shared and governed within the Alaska SLDS, it is helpful to understand Alaska's higher education administrative and governance model. The University of Alaska (UA) is the state's higher education system. The system's president serves as UA's chief executive officer, and is Alaska's academic State Higher Education Executive Officer (SHEEO). The institution is organized around three main administrative units, each of which has responsibilities for administering multiple satellite campuses spread across a state that is one-third the size of the contiguous 48 states. UA data are managed through the system offices under the purview of the UA president's office.

The Alaska Commission on Postsecondary Education (ACPE), funded by the Alaska Student Loan Corporation (ASLC), is an enterprise agency of the State of Alaska, charged in statute with administering student financial aid, licensing postsecondary institutions to operate in Alaska, and promoting access to and success in education and career training beyond high school. ACPE's executive director is Alaska's SHEEO relative to student financial aid administration and institutional authorization. The Commission's administrative staff serves as the staff of the Corporation. They carry out ASLC activities through the delegated authority of the ASLC Executive Officer, who is also the Executive Director of ACPE.

At the postsecondary level, UA's statewide office maintains access to individual-level records for all its enrollees. Due to the limited number of non-UA providers¹¹ of postsecondary education in Alaska, UA has information on the vast majority of in-state postsecondary participants. Yet apart from linking data in order to respond to federal reporting requirements, such as for Perkins participants, there have been few efforts to link student data across the K-12 and postsecondary levels. In part, this has been caused by the fact that such linkages are difficult because the student information systems at UA and DEED use different student identifiers, and Social Security Numbers (SSNs) are not available from both systems. Only UA captures students'

¹¹ The University of Alaska system, including Price William Sound Community College, enrolls approximately 95% of all the postsecondary students in the state. Alaska has one tribal college (Ilisagvik College in Barrow), one private collegiate institution (Alaska Pacific University in Anchorage), and two proprietary institutions (Charter College and Alaska Career College, both in Anchorage). DOLWD also operates AVTEC (Alaska Vocational Technical Education Center), Alaska's public postsecondary career training institution, located in Seward.

SSNs for reporting related to tuition tax credits for the Internal Revenue Service; DEED does not.

Also at the postsecondary level, ACPE, relative to its mission, maintains access to individual-level data specific to: education loan borrowers, state scholarship and grant recipients, and Institutional Student Informational Reports (ISIRs, which summarize FAFSA information) for Alaska residents and students attending Alaska postsecondary institutions; Alaska's authorized postsecondary institutions; and National Student Clearinghouse for Alaska high school graduates; as well as aggregate data on students receiving ACPE outreach services and interventions.

Workforce Data Systems

Labor data is the third critical component in the state's data alignment goals. Alaska's DOLWD currently maintains several unique and confidential administrative data stores. As in most states, the primary workforce data source is historical unemployment insurance (UI) wage records. These wage records are maintained for most wage and salary workers in the state and contain the worker's employer, industry, place of work, and quarterly earnings, using the SSN as the unique individual identifier. In addition, DOLWD collects an employee's occupation, one of only a handful of states to do so. This information presents a unique opportunity to match a student's program of study to the occupation they eventually pursue, a powerful tool to track the efficacy and outcomes of various training programs. DOLWD is also responsible for training, testing, and certifying GED recipients in Alaska, and shares data with DEED to identify those non-graduating secondary school students who go on to earn this equivalency certificate.

Preparatory Work to Date

To better prepare Alaska students to be successful in the twenty-first century workforce, state agencies have long understood that tracking student progression from the K-12 environment, through postsecondary into the workforce is a vital capability as a means to effectively measure the education pipeline's performance and the effectiveness of various programs and interventions. The proposed SLDS will take Alaska's long history of project-specific data linkages to the next level, formalizing agreements to persist over time and ensuring ongoing identification of policy questions and data measurement at levels of interest to policymakers, researchers, and the public.

ACPE first began work on policy questions in 2009 by hosting a multi-agency SLDS project scoping meeting in Anchorage, facilitated by Peter Ewell of NCHEMS and David Longanecker of WICHE and attended by Alaska stakeholders, including representatives from current partner agencies, research organizations, school districts, teacher outreach programs, and broader education stakeholders. This data summit began the process of gathering information and developing consensus on the need to develop a statewide longitudinal data system spanning three sectors: kindergarten through twelfth (K-12) grade, postsecondary education, and labor/employment. At that time, the group adopted the goal for Alaska to build capacity to respond to key public policy questions relating to the efficacy of its education and workforce training systems in preparing citizens to be successful in our economy and society. Those key questions that Alaska must be able to answer address graduation and dropout issues (who, and more important for dropout prevention, why), postsecondary preparedness (students' need for

remediation, increasing retention and graduation rates), measurement of the efficacy of intervention programs, and retention of completers to contribute to the state's economy.

Alaska's agencies concluded the next step was to obtain external expertise and examine where Alaska was in terms of its readiness to develop a larger P-20W SLDS project. Alaska further engaged WICHE and NCHEMS to conduct a landscape review of existing data systems to include the data elements maintained, how they are being used, and the degree to which information held by individual state agencies is shared among them. The results of the review confirmed Alaska's preparedness to move forward in expanding the SLDS to support transparency, accountability, and educational improvement, and set the stage for Alaska's 2009 SLDS grant application. Although that grant was not funded, Alaska continued to move toward linking education /workforce pipeline data by reconvening the primary data partners.

In 2010 ACPE facilitated a partners' retreat in Boulder, Colorado, with WICHE and NCHEMS' guidance, to further develop the SLDS plans. This two-day meeting was moderated by the presidents of the hosting organizations. Two SLDS State Support Team members, Jeff Sellers and Robin Taylor, also attended, sharing expertise on SLDS development and suggesting next steps for Alaska. One of the retreats many outcomes is Alaska's SLDS vision statement (see Boulder Outcomes Document in Appendix B). The vision statement articulates the system's purpose as "Facilitate the state's ability to describe the outcomes of its investments in the education system, both in aggregate and at the student's level, and to identify opportunities to improve it while protecting individual privacy." Other recommendations from the retreat included guiding policy questions the system could answer, governance structure, data security, system design, data providers and users identification, and data reporting. In addition a Memorandum of Agreement (MOA) among the four data partners was developed and approved at each agency (see APS MOA in Appendix B). The outcomes of that retreat have been invaluable in the SLDS planning process for Alaska.

In addition to these more recent SLDS-development collaborations, over the past decade Alaska has developed a strong history of collaboration through existing relationships with Alaska Native organizations and community organizations. CASHE (Coalition of Alaskans Supporting Higher Education), developed by ACPE, UA, and Native organizations, has demonstrated success in coalition building by attracting a Lumina grant to bring College Goal Sunday to Alaska. Another example is the Alaska Career Information System (AKCIS), an interactive Web-based career planning tool made available to Alaska school districts and the public at no charge through the collaboration of ACPE, DOLWD and DEED to share responsibility for development, deployment, and maintenance of this statewide career planning resource.

Finally, Alaska has refined the policy questions identified in 2009 to ensure they continue to express stakeholder needs. To that end, ACPE's Research and Analysis staff surveyed stakeholders to validate and prioritize policy questions, and to identify overlaps and any critical gaps. The results are summarized in the 2010 "Focusing Educational Research in Alaska" report (see Appendix B).

Current Data Linking: Alaska Performance Scholarship

While Alaska currently lacks a system linking data across agencies, other required reports and analyses have resulted in development of manual processes to link data from multiple sources. While these are labor and time-intensive processes, state agencies have taken the opportunity to develop a number of “proof of concept” efforts to better learn how well data link together and to identify any limitations in terms of moving forward with a set of “best practices” in matching records. For an example of one such data sharing project and the information it provided, see the article from Alaska Economic Trends, Tracking Alaska’s Students, in Appendix B.

A recent and notable need to share data relates to the Alaska Performance Scholarship (APS) mentioned earlier. APS is a 2011 program designed to positively influence the education culture in Alaska by incenting and rewarding students who complete a rigorous high school curriculum and meet certain grade and test score benchmarks with scholarships of up to \$4,755 per year for four years. The scholarship legislation required unit-level data sharing among DEED, ACPE, and UA to determine and track student scholarship eligibility, and to report on student outcomes. Data sharing protocols are in place and resulted in a successful program implementation; however, the protocols are highly manual, are limited to APS-related data, and are governed by time- and project-limited MOAs, underscoring the growing need for a robust SLDS with associated agreements.

Meeting Reporting Requirements

Although matching individual data at the K-12 and postsecondary levels in Alaska had been infrequent prior to APS implementation, there have been several projects linking educational data and workforce information. The America COMPETES requirements provide strong incentives to link K-12 and postsecondary data.

Alaska has already taken the next step to ensure K-12 and postsecondary data can be linked with workforce data. Through multiple Memoranda of Understanding (MOUs), DOLWD has accessed individual-level data from DEED and UA. These MOUs are separately negotiated between DOLWD and one or more other state agencies. Some have been in place for many years, while other MOUs are fresh and have little history. Originally, MOUs were developed to answer a discrete question or meet a specific reporting requirement. Recently developed MOUs have allowed for more open-ended arrangements without specific termination dates, although the parties retain the ability to unilaterally terminate the agreement at any time. Under these arrangements, DOLWD matches the other agencies' data to the Alaska Permanent Fund dividend (PFD) database (described in a later section) and with its own data (usually the UI database) to examine former students' experiences in the labor market. Match rates of resident students and workforce data are very high, generally exceeding 90%.

Although the very high match rates document successful linking outcomes, the process can be difficult and time consuming. DOLWD’s Research and Analysis data warehouse has documented its capacity to meet both DOLWD’s needs and the needs of partner organizations, relative to data matching projects (see Trends report in Appendix B). However, the limitations of the MOU structure may result in each match having to be treated like a separate project and additional requests relative to a specific request may result in the agreement having to be created anew. In addition, as these projects are developed on an “as needed” basis, they are not

standardized or automated. For example, different agencies may be involved in producing the data in different projects making it difficult to reproduce matches every time and thus provide comparable data over time and across reports. Alaska needs a system where these data can be linked together so standing reports exist to provide accurate, timely information about key education and career pipeline transitions to inform public policy and improve the education to employment processes.

To date, Alaska meets eight of the twelve elements identified in the America COMPETES Act (see Exhibit 1). While the state does have the ability to match student-level, K-12 and higher education data, to date this is achieved only through manual processes on an as-needed basis. Without a P-20W SLDS, this is considerably time and resource intensive and making it difficult to use the data because any changes or efforts to disaggregate it often require matching the records again to add the new data elements needed for analysis.

EXHIBIT 1. Alaska’s America COMPETES Act Results

Element Met?	Element
Yes	Statewide Student Identifier
Yes	Student-Level Enrollment Data
Yes	Student-Level Graduation and Dropout Data
Yes	Capacity to Communicate with Higher Education Data Systems
Yes	A State Data Audit System
Yes	Student-Level Test Data
Yes	Information on Untested Students
No	Statewide Teacher Identifier with a Teacher-Student Match
No	Student-Level Course Completion (Transcript) Data
Yes	Student-Level SAT, ACT, and Advanced Placement Exam Data
No	Information on Secondary to Postsecondary Transition, Including Remediation
No	Information on Alignment & Adequate Preparation for Postsecondary Success

Although the state’s 2009 grant request to complete the two outstanding elements was not funded, the state continues to move forward in these areas. The 2011 APS implementation extends progress towards meeting these four elements because the scholarship requires districts confirm a student completed a specific rigorous high school curriculum with a minimum GPA in order to be eligible. To date, initial multi-agency meetings among DEED, UA, and ACPE have been conducted to hear presentations on various electronic transcript collection products and to

discuss potential options to expand transcript data collection and analysis. In addition, the state will be collecting information in OASIS relative to student completion of the rigorous curriculum. Also relating to the new APS requirements, DEED has issued regulations defining the specific courses that meet the rigorous curriculum requirements, which is an essential step toward common definition across school districts. The outcome of initial discussions relative to teacher-student matching is that this goal would be most efficiently accomplished as a component of transcript data collection, to include teacher information associated with each course.

Included in the state law establishing APS is a provision for mandatory legislative reporting relative to the impacts of the scholarship on student performance both at the secondary and postsecondary levels. As with the reporting for America COMPETES, APS outcomes reporting is accomplished through a series of relatively cumbersome data match processes. While this activity has been positive in advancing the level of discussion around the reports' value for all stakeholders, it has also illustrated the inefficiency and inherent challenges of having to work outside of an interoperable P-20W SLDS environment.

Alaska Advisory Task Force on Higher Education & Career Readiness

Underscoring the heightened awareness of the need for, and importance of an Alaska SLDS is the April 2011 Final Report of the Alaska Advisory Task Force on Higher Education & Career Readiness (HECR), which included a specific recommendation that ACPE, DEED, DOLWD, and UA collaborate in development of a statewide longitudinal data system. The HECR task force was established by the Alaska Legislature in 2010 as a time-limited task force, charged with, among other things:

- Compiling research on reducing remediation, and improving retention and graduation rates;
- Identifying likely causes for inadequate readiness for college/career ; and
- Identifying best practices for increasing student readiness for college.

HECR members, representing legislative leaders, education leaders, and stakeholders statewide, convened in various venues around Alaska. The HECR heard from state and national subject-matter experts who presented on topics such as remediation, assessment, completion, and financial aid; as well as from members of the public who gave oral and written comment.

At the conclusion of the fact-finding and public testimony, the HECR developed recommendations to the Alaska Legislature in four focus areas: student success, career path guidance, strengthening schools, and predictable and sustainable funding. Key to the strengthening schools section was the recommendation the state develop a SLDS to inform development of action plans to ensure that every Alaska student completes high school with sufficient skills to enter the workforce or pursue a postsecondary course of study.

Permanent Fund Dividend (PFD) Database

Like other states, Alaska faces the problem of linking records across various databases without the benefit of a unique identifier (See Exhibit 2). Matching via the more common administrative records – driver's license, FAFSA submittals, data-to-data comparisons, etc. – is an option in Alaska. However, the Alaska PFD database provides a large, broader-based data repository to match records across Alaska's data systems with incompatible identifiers. The PFD Division is a

component unit of the Alaska Department of Revenue, charged with administering annual payment of the state's PFD to its citizens. The Permanent Fund was created in state law in 1976 to conserve a portion of the state's revenue from petroleum and mineral resources to benefit all generations of Alaskans, and annual fund dividends are paid to every resident of Alaska, regardless of age. To qualify for the PFD, Alaskans apply annually. The PFD database contains the name, date of birth, and address of every Alaskan who has ever applied for the dividend,¹² and SSNs for nearly all applicants. For the past 15 years the dividend has averaged well over \$1,000 per resident, so the incentive to apply is great. Also, because the state withholds 28% of the dividend for federal tax reporting if an applicant fails to supply a SSN, nearly all applicants include SSNs. Using data within the PFD database for matching disparate data sources enables Alaska to attain very high data matching rates, and allows Alaska to validate identifying information such as name and date of birth, and to attach an SSN to records that lack one. For example, while DEED does not collect SSNs, it does collect student names, birthdates, and information on the school the student attends. Matching those records with PFD data can then identify those students' SSNs, which can then be matched against the UI wage database.

Exhibit 2 contains the data elements effective in matching records across agencies. Not all data elements are captured for every agency database, but many contain these data elements at a minimum. Additional elements, such as previous names and mailing addresses, offer enhanced abilities to match datasets across agencies.

EXHIBIT 2. Primary Identifiers by Data Provider

Individual Identifiers	School Districts	DEED	UA	DOLWD	ACPE	PFD
SSN	No	No	Yes (with restrictions)	Yes	Yes	Yes
Agency-created Identifier	Locally created & OASIS #	OASIS #	UA Student ID	No	No	No
Name	Yes	Yes	Yes	No	Yes	Yes
Date of Birth	Yes	Yes	Yes	No	Yes	Yes
Location/Address ID	Mailing, School	School	Mailing, School	Work	Mailing, School	Mailing, Physical

Project Sustainability and Funding

As a functional responsibility of the agency whose operations are funded by ASLC, the Alaska SLDS will be housed and maintained at ACPE. ASLC, a public corporation and enterprise instrumentality of the State of Alaska, funds ACPE's programs through tax-exempt bond sales. It has a legal existence independent of the state and is governed by its own Board of Directors. SLDS operational costs will include sustainability funding for the Alaska SLDS after the grant ends, including costs of necessary hardware, software maintenance, and staff.

¹² To be eligible to receive the dividend, a person needs only to have been an Alaska resident as of January 1st of the dividend year, and maintained their residency for that calendar year with the intent of remaining an Alaska resident. Children born to or adopted by qualifying residents during the year are also eligible, as are resident aliens, and aliens granted refugee or asylee status.

Beginning in 2007, ACPE recognized the urgent need for an Alaska SLDS and began to plan for its development, including identifying costs and options to develop the infrastructure at a sustainable pace. Award of a grant under the 2011 RFA would significantly strengthen and accelerate ACPE's initiative. ACPE will continue to include in its budget planning the expansion of its Research and Analysis and Information Technology funding to support the Alaska SLDS into the future. The SLDS is considered a mission-critical component relevant to supporting access and success in postsecondary education for Alaskans. This funding is independent from State of Alaska general funds, allowing the SLDS to continue after the grant period without being forced to identify other funding sources—stability critical to the SLDS' long-term success.

Beyond the funding component, true SLDS sustainability requires commitment by state leadership. Alaska is poised to aggressively continue its development. On December 5, 2011, Alaska Governor Sean Parnell created the Education Data Sharing (EDS) Policy under Administrative Order 261 (see AO in Appendix B). Implementation of the EDS Policy will better leverage and build upon existing state statutes, which allow data linking and sharing across agencies, to not only permit but direct DEED, DOLWD, and ACPE to share data across agencies to improve education and workforce outcomes and assign responsibility to these agencies to manage the process. This process for bringing together individual-level data to better inform policymaking and evaluate state programs is the responsibility of the EDS policy team – which is composed of leaders from the three primary state agencies and chaired by ACPE's Executive Director.

Alaska's Critical Policy Questions

With the participation of a broad array of stakeholders, Alaska's leadership has identified a number of key policy questions, beyond the legislatively mandated APS report referenced earlier, to answer once access to linked data across the agencies is developed. Each of the following nine critical policy questions falls into a separate research area and has associated research questions. Utilizing a linked system, reports will be developed to fulfill these data needs as summarized in the table following these descriptions. Report frequency will be determined based on timing of data updates and information needs.

1) How many and which students are progressing through an education program/system to achieve college, workforce, and life readiness? Related data include: performance on periodic assessments, high school completion rates, college-going rates, remediation rates, credential achievement rates, workforce participation rates, and wage and industry information.

This is a comprehensive query which, when the capabilities are in place, will allow for many sub-queries arising from this initial data set. By incorporating the elements needed to respond to this query, linking the data will enable Alaska to examine student progress and outcomes over time, including students' preparation to meet the demands of postsecondary education and the twenty-first century workforce. To achieve this analytical capability Alaska must facilitate and enable data exchange among agencies and institutions within the state, as well as conduct analyses for policy purposes using these data. As a result, Alaska will be able to follow student progression through the education pipeline, distinguishing between successful program areas and

strategies and those which need improvement. Student progression will also be followed through academic completion, via degree, certificate or diploma, and into the workforce. Interest areas addressed by this question include: 1) graduation and dropout issues, 2) postsecondary preparedness, 3) measurement of the efficacy of intervention programs, and 4) workforce readiness and participation.

2) What are the migration rates and patterns for Alaskans accessing postsecondary programs outside of Alaska and subsequently returning to Alaska? Related data include: credential achievement rates, workforce participation rates, wage record information.

The approach to measuring related outcomes will start with a cohort of high school graduates, using resources such as the National Student Clearinghouse to track students who leave the state for postsecondary education. They will be monitored through the use of PFD data to determine if they return to the state, and, by using DOLWD wage record data, whether they are subsequently employed in the state. Additional characteristics will be associated with the students, such as those receiving financial aid grants or participating in peer mentoring programs, to enable tracking of specific outcomes for these student subgroups. Interest areas addressed by this question include: the relationship of out-of-state college attendance relative to the ability to retain human resource capital to support the state's economy.

3) Of those Alaskans who participated in and exited Alaska secondary or postsecondary institutions without credentials, how many are within three or fewer semesters to completion and what are their employment statuses and incomes? Related data include: secondary and postsecondary enrollment and exit data, workforce participation rates, wage record information, and rates of employment relative to field of study/training.

An examination of this subset of students' characteristics will produce information which, when common characteristics are identified, can be used predictively by institutions or other entities seeking to develop strategies and interventions to mitigate unsuccessful behavior in the student populations. Linking employment and wage data to "early exiters" and "nearly completers" will help demonstrate the ramifications of exiting school before the successful completion of a diploma, certificate, or degree program. Interest areas addressed by this question include: 1) graduation and dropout rates, and patterns, 2) postsecondary preparedness, and 3) measurement of the efficacy of intervention programs.

4) Of those Alaskans who receive education services from Alaska secondary and postsecondary institutions, how many remain in the state and contribute to the economy? Related data include: secondary and postsecondary enrollment and completion data, workforce participation rates, wage record information, and rates of employment relative to field of study/training.

This analysis will be cohort-based, following the cohort through Alaska's education system and subsequently into the workforce. This analysis will also play a role in identifying what happens to Alaska's students who drop out of the K-12 system, by identifying whether they complete GEDs or complete their educations through alternative means. Interest areas addressed by this

question include: 1) postsecondary preparedness, 2) measurement of the efficacy of intervention programs, and 3) retention of completers in the state to contribute to the state's economy.

5) What is the impact of financial aid on college access and success? Related data include: education loan utilization, scholarship and grant utilization, interventions, socioeconomic factors, credential achievement rates, time-to-degree information, workforce participation rates, wage record information, and rates of employment relative to field of study/training.

This effort will be cohort-based, monitoring and reviewing high school graduates, and distinguishing those who receive financial aid from those who do not to measure what impact these factors may have on postsecondary persistence and completion. Identifying differences in population persistence and completion behaviors based on amount, type, and timing of financial aid will enable the state to design efficient interventions and assistance programs and allocate state resources to maximize desired outcomes. Interest areas addressed by this question include: 1) graduation and dropout issues, 2) postsecondary preparedness, 3) measurement of the efficacy of intervention programs, 4) equity in access to postsecondary education, and 5) retention of completers in the state to contribute to the state's economy.

6) How effective are specific interventions and strategies to increase the rate at which students/citizens, particularly those from low income families, progress through an education program/system to achieve college, workforce, and life readiness? Related data, specific to intervention/strategy participants, include: interventions, performance on periodic assessments, high school completion rates, high school course-taking patterns, socioeconomic, education loan utilization, scholarship and grant utilization, college-going rates, remediation rates, credential achievement rates, workforce participation rates, and wage record information.

Expanding the amount of program data collected by the Alaska SLDS, especially exceptional student educational data and free/reduced priced lunch data, will facilitate the state's ability to evaluate its responsiveness to the student population as a whole related to varying interventions. Additionally, it will enable reviewers and others to drill down into the detail relating to specific program areas. The resulting information will enable the state to identify the most effective use of limited targeted program funds relative to the impact of those programs in effecting specific state goals for specific populations. For example, are interventions and programs utilized at the same rate, and do they result in the same outcomes, for low-income students, as compared to the universe of program participants? Interest areas addressed by this question include: 1) graduation and dropout issues, 2) postsecondary preparedness, 3) measure the efficacy of intervention programs, 4) equity in access to postsecondary education, and 5) keeping completers in the state to contribute to the state's economy.

7) How do Alaska's postsecondary institutions' educational program productivity and capacity align with Alaska's current and anticipated workforce needs? Related data include: credential achievement rates, workforce participation rates, programs of study, occupation data, teacher certification, district personnel data, and wage record information

An initial focus of this question is to analyze teacher preparation programs' effectiveness in producing an adequately trained teacher workforce. Results from this type of evaluation will not be limited to teacher preparation programs, but will also include other disciplines, such as nursing and engineering, and the programs' ability to produce a prepared workforce to be responsive to Alaska's workforce needs. This effort will not only require postsecondary completion data and workforce participation rates, but also K-12 educator data. An interest area addressed by this question: retention of completers in the state to contribute to the state's economy.

8) What is the private/public return on private/public investment in education?

Related data include: education loan utilization, scholarship and grant utilization, interventions, socioeconomic, credential achievement rates, workforce participation rates, and wage record information.

One measure for this question will take the average funds allocated per student and calculate a Return on Investment (ROI) based on the number of students completing high school with a standard diploma. Another measure is residents' hire rates by industry and their wages, in total and as compared to nonresident workers. The resulting analysis will require evaluating how many students complete high school and are subsequently employed in the state, as compared to the amount of state funds supporting the education system by student. Another measure may be calculated by examining completion or other success rates for populations receiving a specified intervention, or participating in a program of interest and comparing that success rate to the general population to determine if the intervention or program produces the intended results. Modifications or enhancements to the intervention strategies can then be implemented, further improving success rates. This analysis can also benefit from the unique aspect of Alaska's workforce data which includes not only industry data, but occupation information as well. Interest areas addressed by this question include: 1) graduation and dropout issues, 2) postsecondary preparedness, 3) measurement of the efficacy of intervention programs, 4) equity in access to postsecondary education, and 5) retention of completers in the state to contribute to the state's economy.

9) How does Alaska attract and retain the best teachers? Related teacher data include: credentials, participation in mentoring or support programs, certification, standardized exam scores, turnover and exit rates, and demographic information.

This query will extend the work described in policy question #7. It will include a cohort-based study beginning with simple comparisons that identify teachers of record who graduated during a recent block of time and identifying where they received their certification and teaching credentials. By linking K-12 teacher certification data, UA teaching program and placement data, DOLWD employment data, and NSC data, interest areas addressed by this question include: 1) teacher turnover and exit rates, 2) teacher migration, 3) teacher performance differentiated by education program, and 4) teacher longevity differentiated by education program.

Using Data to Inform Policy

The answer to a single research or policy question normally requires data sharing among several agencies, but that answer can be important to many different stakeholders and may be included in several different feedback reports. Exhibit 3 provides examples of the types of research

questions appropriate to Alaska’s policy questions, the partnering agencies needed to supply the data to answer the questions, and the feedback reports in which the answers would be included. The following abbreviations are used to identify the sources of the required data and the feedback reports in which the results of the analysis will be included.

KEY	Data Sources
DEED	AK Dept. of Education & Early Development
UA	University of Alaska System
CTP	Alaska Career, Technical and Private Schools
DOLWD	AK Dept. of Labor & Workforce Development
ACPE	AK Commission on Postsecondary Education
NSC	National Student Clearinghouse
PFD	Permanent Fund Dividend

KEY	Feedback Reports
HS	High School Feedback Reports
PS	Postsecondary Feedback Reports
EMP	Employment Outcomes for Graduates and Dropouts
CR	Career Readiness and Job Placement Reports
FA	Financial Aid Impact Reports
EM	Education Migration Reports
LM	Labor Migration Reports
EPL	Education Pipeline Loss Report
LPL	Labor Pipeline Loss Report
ROI	Return On Investment for Interventions

EXHIBIT 3.

Policy Questions, Examples of Related Research Questions, Data Sources and Inclusion in Feedback Reports	Data Sources	Example Feedback Reports
1. How many and which students are progressing through an education program/system to achieve college, workforce, and life readiness?		
How many students graduated from high school and pursued postsecondary education within two years of graduating?	DEED UA NSC CTP	HS PS ROI EPL
How many students pursuing postsecondary studies are attending full time?	UA NSC CTP	PS ROI EPL
Of those pursuing postsecondary education, how many dropped out after one year? After two years? Before completing their program?	UA NSC CTP	HS PS ROI EPL CR
Were students who pursued a career in their field of study less likely to experience periods of involuntary unemployment compared to students taking an unrelated job?	UA NSC CTP DOLWD	HS PS EMP ROI LPL CR
2. What are the migration rates and outcomes for Alaskans attending postsecondary programs outside of Alaska and subsequently returning to Alaska?		
How many Alaska high school graduates and GED completers pursue postsecondary studies outside of Alaska?	DEED DOLWD	HS PS EM LM EPL

	UA NSC	
Are students pursuing their education in Alaska more or less likely to complete their degree or certificate?	DEED UA NSC	HS PS ROI EPL
Of those pursuing studies outside the state, how many eventually return?	DEED NSC DOLWD PFD	HS PS ROI EM LM EPL LPL
Does the existence of Alaska's financial aid programs increase the number of students who attend school in Alaska? Who complete their program of study?	DEED UA CTP	HS PS ROI FA EM EPL CR
3. Of those Alaskans who participated in and exited Alaska secondary or postsecondary institutions without credentials, how many are within three or fewer semesters to completion and what are their employment status and income?		
How did the wages of high school graduates who went on to complete a degree or certificate program compare to those who did not pursue postsecondary education? To those who dropped out?	DOLWD UA NSC CTP DEED	HS PS EMP ROI EPL LPL CR
For both dropouts and graduates in secondary and postsecondary, in which occupations were these students most likely to be employed? In which industries?	DEED UA NSC DOLWD	HS PS EMP ROI LM EPL LPL CR
How many Alaska secondary students failed to graduate, but obtained a GED in Alaska within two years of their expected graduation year?	DEED DOLWD	HS EPL LPL
4. Of those Alaskans who receive education services from Alaska secondary and postsecondary institutions, how many remain in the state and contribute to the economy?		
Do teachers who received Alaska subsidized loans, particularly those focused towards the profession, exhibit different retention and turnover patterns than those teachers who did not receive these loans?	ACPE UA NSC DEED	HS PS EMP ROI FA EM EPL LPL
Do students returning after pursuing out-of-state postsecondary education make higher wages than those pursuing postsecondary education in Alaska? How many find employment in Alaska, and how does this compare to students pursuing postsecondary studies in state?	NSC PFD DOLWD UA CTP	HS PS EMP ROI EM LM EPL LPL CR
Were degree/certificate completers less likely to experience periods of involuntary unemployment compared to students not pursuing postsecondary education?	UA NSC CTP DOLWD DEED	HS PS EMP ROI LPL CR
5. What is the impact of financial aid on college access and success?		

Does the existence of Alaska's financial aid programs increase the number of students who take standardized tests (SAT/ACT/WorkKeys) to pursue a postsecondary education? Who fills out a FAFSA?	ACPE DEED	HS PS ROI FA EPL CR
Are postsecondary students receiving financial assistance more likely to attend school full time?	ACPE UA CTP NSC	ROI FA
Are postsecondary students receiving financial assistance less likely to work while attending school?	ACPE DOLWD	PS EMP ROI FA LPL
6. How effective are specific interventions and strategies to increase the rate at which students/citizens, particularly those from low-income families, progress through an education program/system to achieve college, workforce, and life readiness?		
How many remedial credit hours were taken by first-year post-secondary students? How many and what percentage of students required remedial classes?	DEED UA CTP	HS PS ROI
Are there socioeconomic or demographic differences among secondary students who qualify for and receive Alaska's performance-based scholarship? Alaska's needs-based grant?	DEED ACPE UA CTP	HS ROI FA
When student outcomes differed, were there differences in the attributes of those students?	DEED ACPE UA CTP NSC	HS PS EMP ROI EPL
7. How do Alaska's postsecondary institutions' educational program productivity and capacity align with Alaska's current and anticipated workforce needs?		
Of those pursuing postsecondary education, how many obtained their degree or certificate?	DEED UA CTP NSC	HS PS ROI EPL CR
How many Alaska secondary students were eventually employed in an occupation requiring licensure or certification?	DEED DOLWD	HS PS EMP LM LPL CR
Of the teachers teaching in Alaska, how many attended K-12 in the state? Resided in AK before beginning teaching? Do these teachers have higher retention/less turnover than those who didn't?	DEED PFD DOLWD	HS PS EMP ROI EM LM EPL LPL CR
8. What is the private/public return on private/public investment in education?		
What percentage of high-school graduates pursued postsecondary education? At what level? (Certificate, AA, BA, etc.)	EED UA CTP NSC	HS PS ROI EPL
How many Alaskans who earned a GED went on to pursue postsecondary education?	DEED DOLWD UA CTP NSC	HS EPL

Of those pursuing postsecondary education, how many filled an occupation that was aligned with their postsecondary program of study? Was that program of study available in Alaska? Was that program of study or occupation targeted by a financial aid program?	DEED UA CTP NSC DOLWD ACPE	PS EMP ROI FA EM LM EPL LPL CR
9. How does Alaska attract and retain teachers?		
What are the turnover and exit rates for teachers? Do certain districts have higher rates than others?	DEED DOLWD	HS PS EMP EM LM LPL CR
When teachers stop teaching in Alaska, how many move out of state? Remain employed in Alaska in a different occupation? Remain employed as teachers in a non-public school?	DEED PFD DOLD	HS PS EMP EM LM LPL
Do teachers trained in other states have higher turnover and/or exit rates than those trained in Alaska?	DEED DOLWD	HS PS EMP LM LPL CR

B) DELIVERABLES

Deliverable 1. Project Planning and Preparation

Key to Alaska’s success in complex, multi-agency initiatives has been strong project management, emphasizing proper scoping, planning, and preparation. In preparation for creation of a statewide SLDS, Alaska’s agencies have already begun tasks necessary to a strong project management structure and successful SLDS, including creating a governance structure, evaluating existing data systems, developing cross-agency record matching processes, and identifying critical questions the SLDS can be used to answer. The Alaska partner agencies have already mapped out the project planning and preparation stage of the SLDS project to ensure the system meets stakeholders’ expectations within all time, data, and budget constraints. This first deliverable will formalize that mapping and ensure ongoing project management through the completion of the SLDS project.

1.1 Overall Project Plan

In order to ensure overarching management of all the project pieces, with special emphasis on appropriate scoping, critical path identification, business needs, and resource management so the system will meet stakeholder needs, Alaska proposes to identify and hire a consultant to facilitate the development of the project plan, general requirements, and framework.

1.2 Project Mission Statement and Project Methodology

Aided by the consultant, agency staff will build on the 2010 Alaska data summit vision statement to create a project mission statement, which will guide development of a project methodology plan describing the roles and responsibilities of the agencies and project staff and high level requirements for the project. This mission statement and project methodology will guide the entire project. Alaska will additionally work with the consultant to identify the best specific methodology for this project and ensure all project team members are fully trained on that

methodology. Any methodology must, at a minimum, adhere to ACPE's summary standards for project methodology (see ACPE Project Methodology Summary in Appendix B).

1.3 Develop and Deploy Governance Structure

Realizing project governance is a critical element, Alaska has done a great deal of preliminary work on developing a governance structure for the SLDS. Based on the 2010 work with Alaska stakeholders and WICHE and NCHEMS staff, the project design calls for a two-tiered structure. One is an executive level to set policy, determine research agendas, review requests for special projects using the SLDS data, and determine the scope of permitted reporting. The second is a data stewards governance level which coordinates with technical resources and stakeholders, makes certain data are accurate, and coordinates the updating and maintenance of the database. In this phase of the project this governance structure will be fleshed out and presented for approval to the stakeholders of the system and ultimately implemented. The data stewards' activities will be coordinated by the SLDS Project Management Office (PMO), whose responsibilities will include ensuring:

- meetings are regularly scheduled and attended,
- issues are appropriately and timely referred to the executive body as needed,
- stakeholder input mechanisms are regularly and actively deployed,
- research agendas are fully and compliantly implemented,
- annual independent third-party reviews of SLDS activities are conducted and reported to stakeholders, and
- appropriate change management documentation and controls are used.

1.4 Validate and Prioritize Critical Policy Questions

The initial set of critical policy questions will be vetted and reviewed with a variety of stakeholders ranging from the administration and legislature to individual teachers and parents. The vetting process will be managed and documented with the assistance of the project consultant, and conducted through surveys, a series of interviews, focus groups, and expert review to ensure the final versions of questions represent the most important questions to guide system development.

1.5 Analysis of State and Agency Needs for Reporting

The PMO will consult with stakeholders at every level to identify data needs for state, federal and other reporting. Following identification of reporting needs, detailed analyses will occur to identify appropriate data elements, proxies if needed, and data availability and the ability to meet reporting needs. The outcome of this sub-deliverable will be a detailed document re-circulated to stakeholders and ultimately submitted to the executive governance body for approval. Mechanisms to solicit input both in the development of the analysis and resulting document will include face-to-face interviews with agency staff and related stakeholders.

1.6 Identify Business and Technical Requirements

Once the preliminary planning process is completed a planning retreat will be held for partner agency staff and stakeholders to identify critical business and technical requirements in terms of system capabilities, access, and security requirements. The retreat product will be a system requirements document to drive development of the Alaska SLDS. One of the main technical

requirements document objectives will be to identify all regulatory requirements of the various agencies providing data to the SLDS and describe the compliance methodology or structure. Examples of such regulations may include FERPA, HIPAA, WRIS reporting requirements, and state and federal regulations regarding the release of wage and unemployment insurance records. This process will also include developing such business requirements as role-based access to SLDS data and similar essential security structures.

1.7 Analysis of Existing Data Systems

Another preparation step is to analyze the existing data systems that will feed the Alaska SLDS. This will include analysis to determine data quality, limitations and availability issues. The analysis will consist of profiling data from each of the current data systems to be included in the Alaska SLDS and identifying the data elements needed to answer the policy questions. If any data are not available, a determination will be made as to whether the data can be gathered in future data reporting. Documenting data in each system, compiling a data dictionary, and mapping the data model will be critical to developers and business analysts in understanding data that will populate the system and the timing for data gathering from each entity. This analysis will also continue the work begun in 1.5 to allow Alaska to evaluate data quality and constraints to determine which data elements should be included and where data quality could be improved. A key component will be to determine which data elements can be used to match across data systems. Once this data analysis is complete, a gap analysis of available data can be conducted. This will allow Alaska to fully evaluate its data needs to answer the guiding policy questions, identify data availability, and resolve any issues and establish priorities for including data within the system. Finally, alignment with the U.S. Department of Education's Common Education Data Standards (CEDS) across different sectors in Alaska as the state builds an integrated data warehouse will be critical, especially relative to potential future participation in multi-state initiatives or regional compacts.

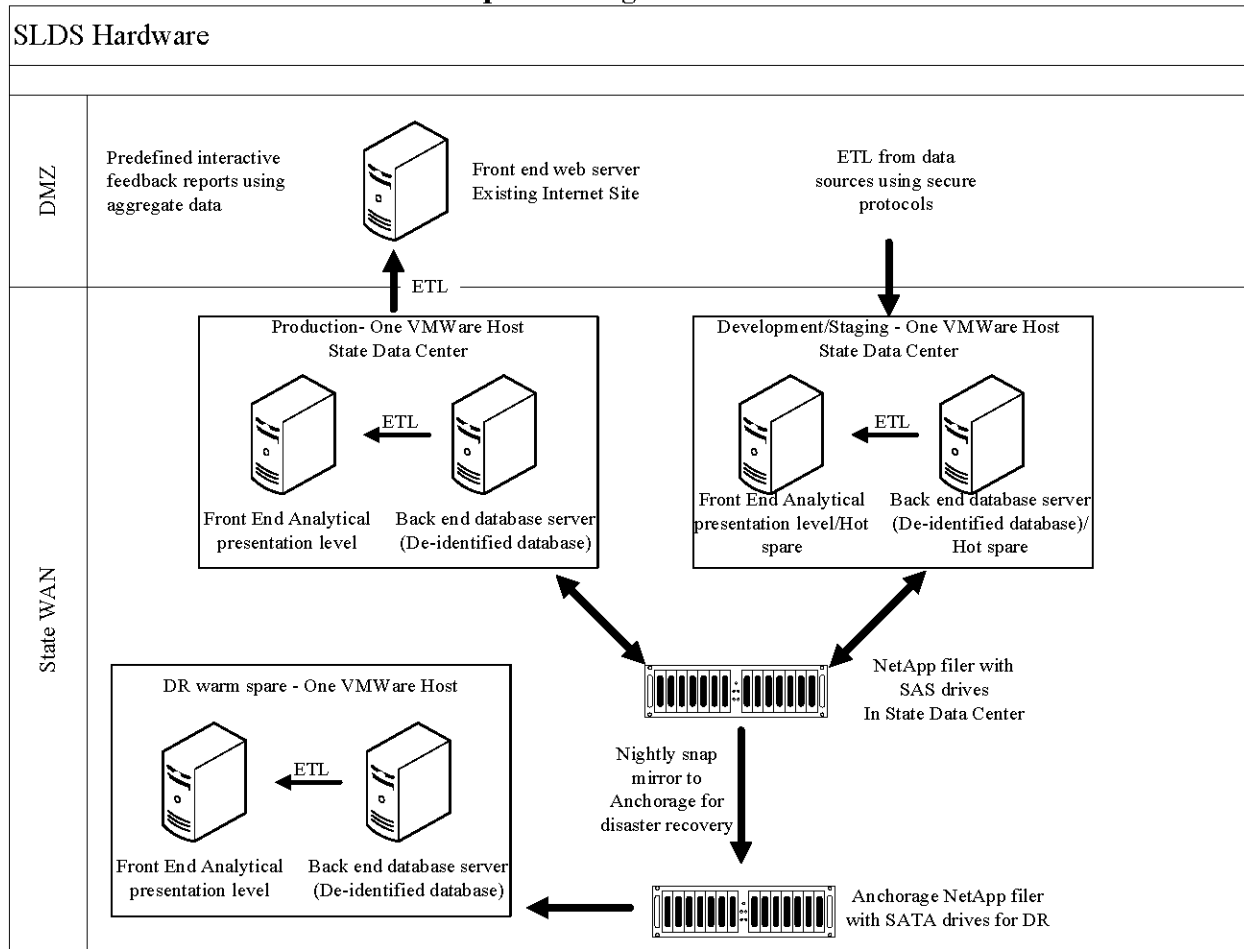
1.8 Develop Data Models for the SLDS

The next step in the project planning and preparation will be to develop data model options for the Alaska SLDS. Alaska will identify and secure external expertise in SLDS technical specifications to assist with the creation of the overall data model. The data architect, and agencies' research and technical teams will meet to discuss options, keys to link the data structures together, to catalog and define key metrics, and to develop an inventory of files and lookup tables needed. The product of these meetings will be design of the primary database and related data linkages.

Deliverable 2. Hardware Infrastructure

Alaska technical staff have conceptualized a hardware infrastructure for the SLDS robust enough to meet the expected demands upon the system, yet flexible enough to allow for future enhancements and expansion. It is understood this infrastructure may change during the planning phase as more information is gathered. This conceptual infrastructure, however, allows staff to estimate the hardware and software costs expected to be required. Exhibit 4 illustrates the current infrastructure concept.

EXHIBIT 4. Infrastructure Conceptual Design



2.1 Procure, Install and Test Server Hardware and Software

The first step in developing the SLDS infrastructure will be to establish the hardware and software platform according to the technical requirements of the project. The current design plan and budget includes three servers, operating systems, database software, development software and any other software deemed necessary to make the Alaska SLDS a reality. The hardware and software will be purchased under State of Alaska procurement policy, using various educational discounts to reduce costs. The final decision regarding servers and software will be made by the agencies' technical staff at the conclusion of the technical requirements process. Exhibit 4 illustrates use of a virtual server environment, providing redundancy with development and disaster recovery servers in the case of a production hardware failure or other disaster.

2.2 Procure, Install and Test the Networked Data Storage

A data system of this size and importance needs a large amount of storage space. A sufficient amount of secure networked data storage will be created to support the project. This will be the responsibility of the technical staff assigned to this project. As illustrated, the plan is to have two storage devices located in separate locations, allowing a nightly snap mirror of the data for disaster recovery purposes.

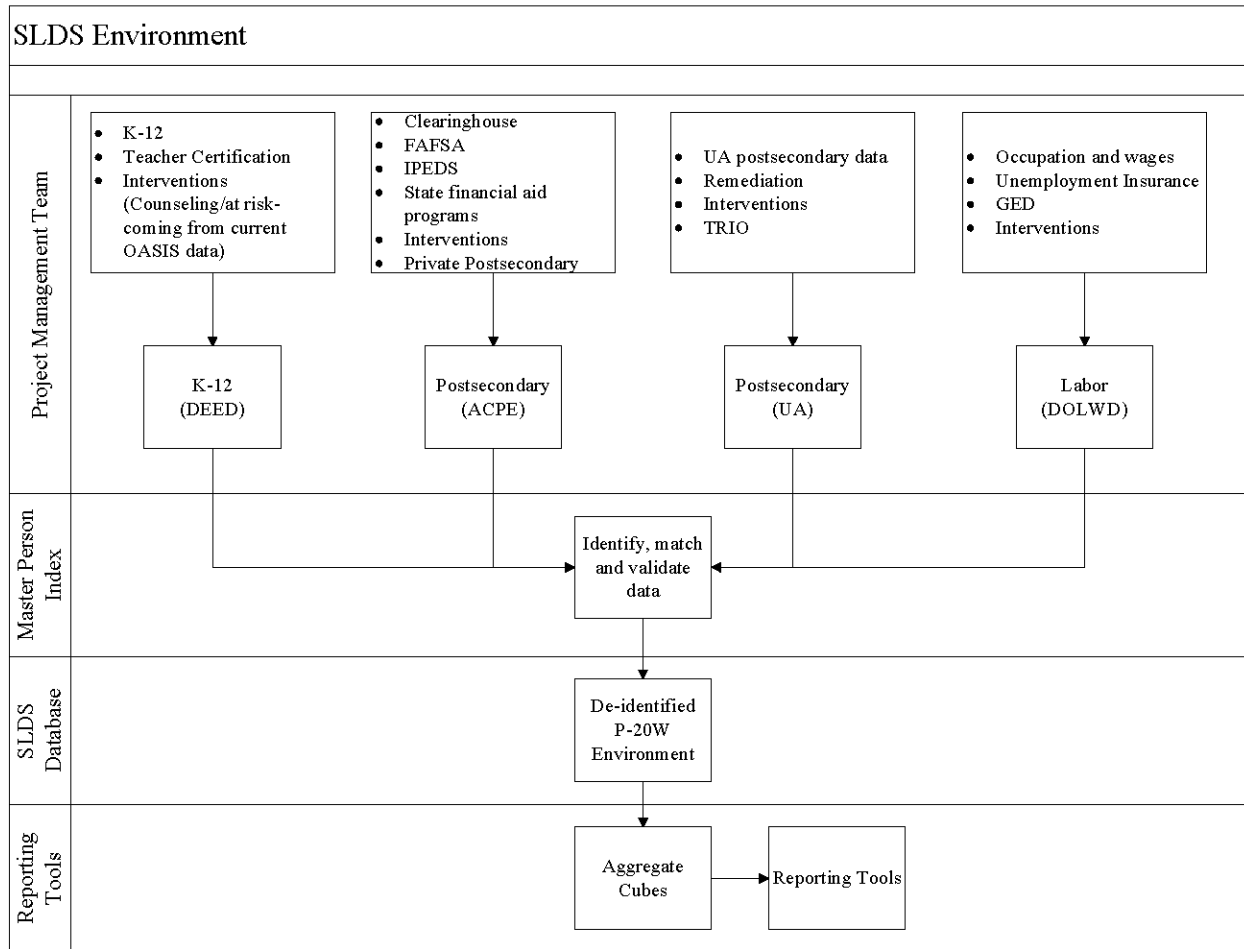
2.3 Install and Test Backup and Disaster Recovery Solution

Given the importance of the data residing in the Alaska SLDS a well-developed backup system is essential. The hardware and software to support the backup and disaster recovery requirements in the technical requirements document will be created by the technical staff assigned to this project. This backup solution will be built not only to accommodate the immediate needs of the Alaska SLDS but also to provide capacity for future growth.

Deliverable 3. Development

The development phase of the SLDS project is the most time consuming, in which all prior planning efforts are realized. Throughout this process a formal project methodology will be utilized as discussed in deliverable 1.2 to ensure project deliverables, dependencies, and critical paths are identified and tracked. Emphasis will be placed on data security, data availability, and system performance, as well as the interaction between data sources. Exhibit 5 illustrates the envisioned system processes that will make up the Alaska SLDS. Specifically, each of the four data providers will provide snapshot data to the PMO, which will identify, match, and validate data. The types of data from each provider are listed above the provider name. At the PMO, matched data will be assigned a P-20W SLDS identification number and be stripped of all other individually identifiable data. The de-identified data will be loaded into the SLDS following appropriate data validity and integrity tests as developed during the ETL project phase, and the original snapshot files will be destroyed.

EXHIBIT 5. SLDS Processes



3.1 Create Extract, Transform and Load (ETL) Processes

The first step in the development process is to create Extract, Transform and Load (ETL) processes to integrate snapshots of data from the current agency data systems into the SLDS. These ETL processes will be specific to each contributing agency. As agency data files are loaded into the system, cross-walk tables will be created that allow data to enter the system in multiple formats and be transformed into the formats described in the CEDS to ensure future opportunity to pursue data sharing potentials with other states, including the multi-state data project being developed in cooperation with WICHE.

3.2 Create a Master Person Index (MPI) Record Matching Process

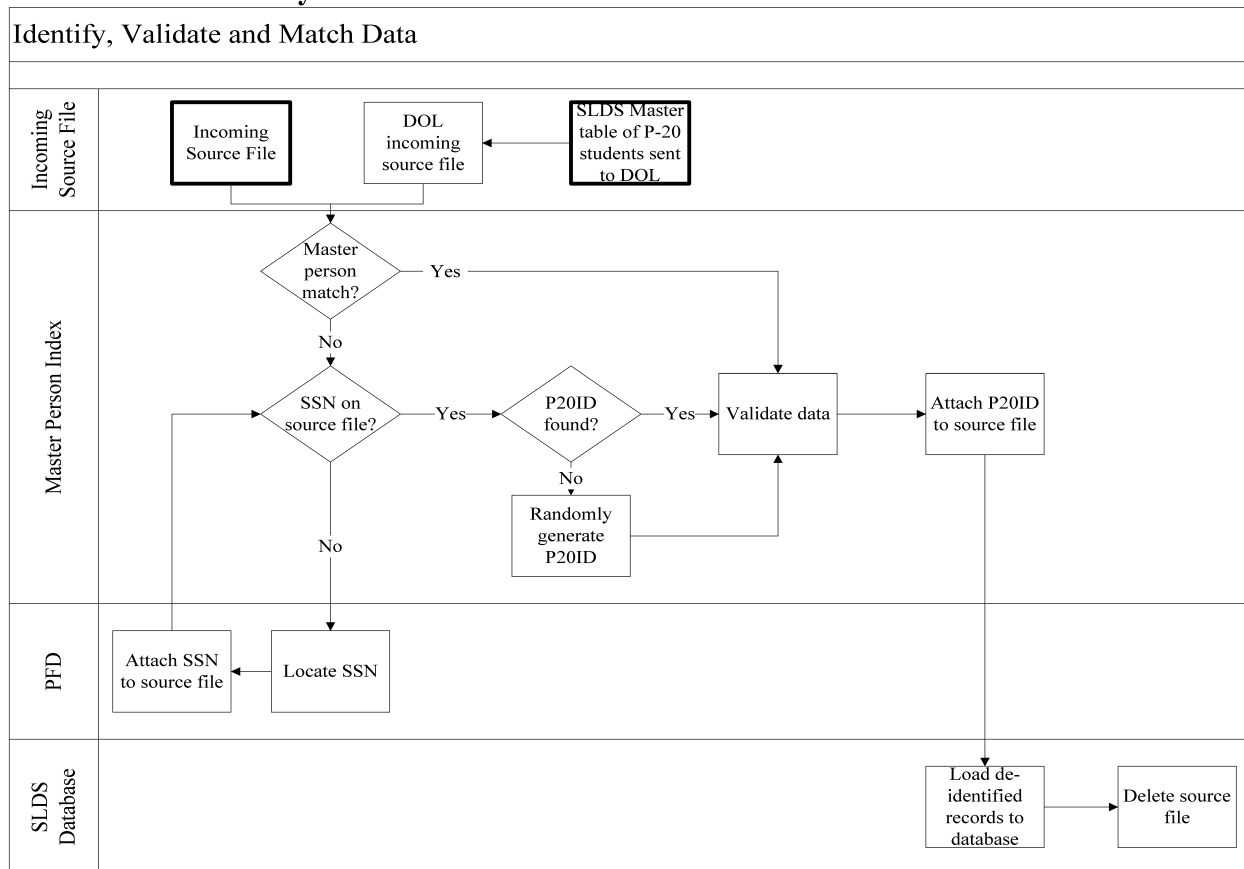
Technical staff will work with a security expert to build a secure and sequestered Master Person Index (MPI) process, incorporating custom matching algorithms and processes for matching individual records within the system and assigning unique P20 Identification Numbers (P20IDs) to individuals new to the system, or existing P20IDs to data from individuals already within the system. The process will include applications which facilitate the review of possible record matches by analysts in the event of partial matching criteria but below a defined minimum threshold to confirm a match within the MPI. The files agencies provide with identifiable data will be encrypted prior to transfer and transferred through a secure protocol. The personally identifiable information (PII) from these files will reside in the MPI, which will be maintained on

a separate secure hardware infrastructure from the P-20W SLDS to further limit access to the data. These files are used only for the matching process. Once data are de-identified and the PII moved to the MPI, the original files from the data providers will be destroyed. Exhibit 6 illustrates this process.

3.3 Create and Populate the Database Environments

The final outcome in the development phase is the creation of the SLDS database environments. A staging environment where incoming data can be analyzed for data quality issues prior to final loading into the SLDS will be included in this process for individual agency use. This staging environment will provide data audit or edit reports to the agencies to review for final approval (See Exhibit 6). In addition, technical staff will develop the unified P-20W database environment where data are brought together from all of the sources that can be linked together via the P20ID. Once the database environments are created, data will be processed through the ETL and MPI linking process and populate data tables so they can be tested and used for analysis and report writing.

EXHIBIT 6. SLDS System Processes



Deliverable 4. Data Reporting

To realize benefits from the costs and efforts required to build a SLDS, the information it contains must be accessible, understandable and accurate. However, these attributes mean different things to different people, depending on their needs and their experience working with data. For that reason, Alaskans and approved researchers will have several levels of access to