IES PRS

Application Profile

Application Number: R372A05131

Competition: 84.372A05 **Date Entered:** 6/28/2005

Organization Information

Organization Name: Alaska Department of Education & Early Developmen

Organization Unit: Teaching & Learning Support

Organization Address: 801 West 10th Street
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Juneau, AK 99801 **Country:** United States of America

Project Director Name and Information

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Application Title

Unity Project: Data Mining for Student Sucess

State Identifier

Period of Performance

Project Begin Date: 11/01/2005 **Project End Date:** 09/30/2008

Abstract

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Success

Statewide Longitudinal Data System Grant

Alaska's current data collection and dissemination system makes it nearly impossible to track a student's academic performance over time; collect and analyze performance data to determine whether programs and practices are meeting goals; or monitor the success of research-based programs to make adjustments and achieve the best outcomes for Alaska's students. The State of Alaska, its 54 school districts, 527 schools, and 7,857 teachers will not be able to make data-driven decisions to improve student outcomes if the State continues to collect and disseminate data the "same old way." To reach a point where Alaska is able to make data-driven decisions to improve student outcomes, the State must make significant improvements to its current data system and data use policies.

The State of Alaska is submitting a grant to the U.S. Department of Education to implement a statewide longitudinal data system. The Unity Project will provide accurate, timely, and accessible student-level data to school districts, parents, teachers, students, legislators, educational organizations, and the general public. It will enable the Department and districts to better evaluate their educational progress and investments over time and improve student achievement. And it will provide an efficient, flexible, and secure means for the district and states to comply with federal reporting requirements delineated in the No Child Left Behind Act of 2001.

The Unity Project will revolutionize data collection and analysis in Alaska by 1) implementing well-defined content and common definitions for student-level data; 2) constructing web portals customized for internal department use, districts, researchers, the Alaska Legislature, the public, and the U.S. Department of Education that provide reports as well as tools to create customized reports; and 3) vertically integrating the State of Alaska data system with those of Alaska's 54 school districts, making district reporting quick, efficient, and exact.

Alaska will elicit the input of stakeholders throughout the project using several avenues, including regional stakeholder meetings and the development of portal review committees. The State will also turn to these committees to develop user policies.

The Unity Project will also provide training to district data entry and programming staff. Finally, the Unity Project will develop and implement training for teachers and administrators that will teach them to ask data-driven questions and analyze data to improve student achievement in their classroom and schools.

This is a three-year project and will cost $3,506,757.

Human Subjects: No **Exempt from Regulations:** No **Exemption #:** **Assurance #:**

Exempt Narrative:

Non-Exempt Narrative:

Estimated Funding

Federal:	$908,046.00	Local:	$0.00		
Applicant:	$0.00	Other:	$0.00	Total:	$908,046.00
State:	$0.00	Program Income:	$0.00		

Federal Budget

Budget Categories	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. Personnel	$231,876.00	$180,863.00	$125,399.00	$0.00	$0.00	$538,138.00
2. Fringe Benefits	$68,192.00	$55,434.00	$41,562.00	$0.00	$0.00	$165,188.00
3. Travel	$60,200.00	$42,000.00	$166,000.00	$0.00	$0.00	$268,200.00
4. Equipment	$0.00	$34,100.00	$156,000.00	$0.00	$0.00	$190,100.00
5. Supplies	$20,500.00	$20,000.00	$20,000.00	$0.00	$0.00	$60,500.00
6. Contractual	$414,500.00	$464,000.00	$941,500.00	$0.00	$0.00	$1,820,000.00
7. Construction	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8. Other	$51,000.00	$47,600.00	$10,000.00	$0.00	$0.00	$108,600.00
9. Total Direct Costs	$846,268.00	$843,997.00	$1,460,461.00	$0.00	$0.00	$3,150,726.00
10. Indirect Costs	$95,628.00	$95,371.00	$165,032.00	$0.00	$0.00	$356,031.00
11. Training Stipends	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
12. Total Costs	$941,896.00	$939,368.00	$1,625,493.00	$0.00	$0.00	$3,506,757.00

Non-Federal Budget

Budget Categories	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. Personnel	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2. Fringe Benefits	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3. Travel	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
4. Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5. Supplies	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6. Contractual	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7. Construction	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8. Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
9. Total Direct Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10. Indirect Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
11. Training Stipends	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
12. Total Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Application Details

D-U-N-S Number:	(b)(2)	T-I-N:	92-6001185	Duration (years):	3
Any Federal Debt:	No	Specify:			
Type of Applicant:	State	If Other, Specify:			

Authorized Representative Information

AR Name	AR Address	AR Phone	AR Fax	AR E-mail	Primary:
Ms. Karen J Rehfeld	801 West 10th Street Suite 200 Juneau, AK 99801 United States of America	907-465-8650	907-465-4156	Karen_Rehfeld@eed.state.ak.us	Yes

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Success
Project Narrative

1) Need for the Project

Summarize the status of the State's current statewide data systems . . .and what would be gained through work proposed for this grant program. Clearly specify the need to improve the current system.

Over the summer, Kim, a teacher in Kotzebue took a class on data-driven instruction. She wanted to start the new school year by analyzing her students' achievement of the Alaska State Standards to differentiate her instruction based on her students' proficiency levels on various standards. Because she was in Kotzebue a few weeks before school started, she expected to have plenty of time to learn about her students, but when she asked the Northwest Arctic Borough School District for her students' scores, they told her the district had not yet received the scores from the testing company.

More than 70% of Alaska's districts have fewer than 1,000 students; 50% have fewer than 500 students. And 25% have fewer than 200 students.

Every year, 16% of Alaska's teachers are new to their job.

In October the district office mailed her the paper reports that they received from the testing company outlining each student's reading, writing, and math proficiency level. Over Christmas break, as she had time, she spent two weeks entering the information into an Excel spreadsheet and looking for patterns. During spring semester, she took her first steps toward differentiating her instruction. She was only able to design a few lessons using the assessment data before school ended.

Two years ago, when East Elementary in the Kodiak Island Borough Schools first failed to make Adequate Yearly Progress, the school's administrator, Jane, gathered several teachers and parents together to develop a School Improvement Plan. The first question they asked was "Why didn't our school make AYP?" The State gave Jane a report with the number of students enrolled, how many students participated in the assessments, proficiency levels in reading, writing, and math, and the number of students tested who were enrolled for the full academic year. The State provided all of this data by subgroups.

But, the group did not know how to use the information to uncover factors associated with successful and unsuccessful students; they did not know how to answer the "why" question. As a result, the programs they adopted to improve student achievement did not work and East Elementary failed to make Adequate Yearly Progress a second year in a row.

More than half of the schools in Alaska have fewer than 10 teachers.

In another part of Alaska, Roger began work as the Yukon Flats School District's new Federal Programs Director last August. Like many of his colleagues, Roger was new to Alaska and to the field of education. In September he added teaching two English classes to his job description. In

October, he became responsible for submitting the district's October Count – the report the State uses to determine district funding levels.

Roger spent over three weeks wading through stacks of paper to collect the 25 required data elements for his district's 292 students, but neither he nor his colleagues were able to find all of the information required by the State to determine the district's Average Daily Membership. Like him, the Superintendent and the Assistant Superintendent were new to the district and to their positions, as were many of the teachers.

Every year, 1/3 of Alaska's superintendents are new to their job.

When he emailed the data he did have in an Excel spreadsheet to the State, they provided him with an "edit report," listing his errors and omissions. At the same time, the State emailed him a piece of his district's data that he had never seen -- a list of ninth graders who may have dropped out of school the previous year. Reporting dropouts is not standard across Alaska, so these students may have dropped out, moved to another district or state, entered a home school program, or even died.

On its end, the State spent more than four months collecting, reviewing, sorting, and attempting to correct October Count data from Alaska's 54 school districts -- a process the State repeats for more than 100 reports every year. In addition, the State spends months preparing templates, providing technical assistance, and training district staff to prepare reports like the NCLB Consolidated Federal Performance Report, the Migrant Education Report, and the NCLB Suspensions and Expulsions Report. No time is left to analyze the data for factors associated with student achievement; less is left for making data-driven solutions.

Every year, 25% of Alaska's administrators are new to their job.

The State of Alaska's current data collection and dissemination system makes it nearly impossible to track a student's academic performance over time; collect and analyze performance data to determine whether programs and practices are meeting goals; or monitor the success of research-based programs to make adjustments and achieve the best outcomes for Alaska's students. The State of Alaska, its 54 school districts, 527 schools, and 7,857 teachers will not be able to make data-driven decisions to improve student outcomes if the State continues to collect and disseminate data the "same old way." To reach a point where Alaska is able to make data-driven decisions to improve student outcomes, the State must make significant improvements to its current data system and data use policies.

SYSTEM COMPONENTS

Following is a description of the State of Alaska's current statewide data system with respect to each of the required system components.

I. A unique, permanent student identifier . . .

Alaska has built the foundation to track student outcomes over time. In 2001, the State of Alaska implemented a unique, permanent student identifier. Using the Alaska Student Identifier System

(ASIS) – a high security, password protected, web-based system– the State assigns a unique 10-digit identification number to all students. ASIS includes the 10-digit Student ID number; School District ID; Student First, Middle, and Last Name; Last Name Suffix; Student Date of Birth; 'M' or 'F' (Male or Female); a 6-digit School Code; Child's Alias; Other Last Name; Mother's Maiden Name; Birth Place; and District Student ID Number. The student identification number becomes part of a student's permanent school record, not changing if a student moves from one Alaska district to another.

School districts use this identification number when they report student information to the department. School district personnel, who have been assigned usernames and passwords, access the system through a web-based portal.

School districts have to enter the same piece of information 4, 6 – sometimes even 10 – separate times just to comply with mandatory reporting requirements.

II. An enterprise-wide data architecture . . .

Alaska cannot analyze factors associated with improving achievement or chronologically correlate even such basic information as student test data without massive effort. The State deposits data reported from districts, standardized testing vendors, and state agencies in more than 26 separate data "collections" that are not relational in nature. These collections do not share an enterprise-wide data architecture. Approximately half of these collections can be linked via Alaska Student ID, Teacher Social Security Number, District ID, and/or School ID. The other half of the data collections require manual data input submitted via Excel spreadsheets or paper forms. These collections have unique data object classifications; relationships between entities; and names and definitions for data elements.

In turn, these data collections include countless "databases" developed specifically for a given task or project. State assessment data provides a perfect example of this problem. Below is a list of the 49 assessment databases the State currently maintains.

- 11 High School Graduation Qualifying Examination (HSGQE) databases (one for each administration of the examination);
- 5 Standards Based Assessment databases (one for each administration of the Examinations);
- 6 CAT6 databases (two for each administration - one student-level, one summary);
- 12 CAT5 databases (two for each administration - one student-level, one summary);
- 2 Alternate Assessment databases;
- 1 Modified Assessment database;
- 3 Kindergarten Profile databases;
- 3 Participation Rate databases (one for each of the last 3 administrations); and
- 6 AYP databases (two each - statewide, district, school).

The State's chaotic data system lacks business rules requiring standardized data collection and error checking. As new data requirements appear the State simply creates and distributes new, independent databases and forms with minimal oversight. Often these new databases are designed by inexperienced staff, which further complicates the aggregation of data for reporting. Using this data collection system, Alaska cannot guarantee the validity or reliability of its data.

Multiple names for the same item is one of the most obvious symptoms of a system without business rules. For example, the data element for race and/or ethnicity is referred to alternatively in various databases and reports as Race, Ethnicity, Race/Ethnicity, or Ethnic Background. It in turn is coded with even more variation. Take for example, the various ways the State codes Alaska Natives: 0 = Alaska Native; 1 = Alaska Native; 6 = Alaska Native; AKN = Alaska Native; N = Alaska.

However, the State has taken the first step toward a coherent data system. The U.S. Department of Education's Performance-Based Data Management Initiative (PBDMI) propelled the State to identify a minimum number of required data elements. Building on this start, the State is developing a data dictionary complete with business rules – the foundation of an enterprise-wide data architecture.

The data dictionary lists each element the State collects with a clear definition and rules for data entry. It includes five domains: School, Local Education Agency (LEA), Intermediate Educational Unit (IEU), State Education Agency (SEA), and Student, Staff. The dictionary includes all of the data elements required for reporting under the Elementary and Secondary Education Act of 1965 and all of the Priority 1 and Priority 2 data required by the U.S. Department of Education's Performance-Based Data Management Initiative (PBDMI). The completed dictionary will be on line by June 30, 2005.

By itself the data dictionary is not a comprehensive statewide longitudinal data system. It is through the proposed Unity Project that Alaska will complete the tasks needed to fully implement an enterprise-wide data architecture. The State will:

1) conduct a thorough analysis of information needs across the State's and districts' program offices, schools, classrooms, and Federal reporting requirements;
2) build a data infrastructure of relational tables;
3) establish quality assurance procedures; and
4) implement Schools Interoperability Framework standards between the State and all 54 of Alaska's school districts.

Schools Interoperability Framework (SIF) will ensure that the State and school districts are using standard definitions and objects for commonly used student data, formats for shared data, naming conventions, and rules of interaction among software applications.

III. Procedures for protecting the security, confidentiality, and integrity of data . . .

As evidenced by Kim's experience, teachers and administrators cannot rely on the timeliness of the State's data.

The State's data system does not ensure the accuracy of data either. Some data collections include an error-checking program that produces exception reports to be sent back to the district. Some are checked for integrity through queries that search for invalid data. Other databases are visually checked for errors. All of these processes are time and labor intensive. The Unity Project will address these problems by applying business rules for data validation and accuracy.

The State's data system protects the security, confidentiality, and integrity of the system by encrypting data before sending it electronically and through a system of network and database permissions. Web access is controlled by requiring a user name and password prior to viewing, updating, adding or changing data.

However, the State has a serious concern about its security measures: the current system lacks a mechanism to track authorized users. The State does not know when a district employee tasked with data entry leaves his or her job. Nor does the State know when an employee tasked with data entry shares his or her passwords with others. The Unity Project will further ensure the security, confidentiality, and integrity of the State's data by developing policies guiding data permissions and using Oracle's built-in security features and encryption.

IV. Vertical integration of local and State data collections . . .

No vertical integration exists between the local and State data collections in Alaska, and different units within the State are unable to communicate with one another. Districts throughout the State regularly reenter the same data by hand that the State has in its databases; and the State regularly reenters data by hand that districts have in their databases.

> **"I have a list of over 30 district personnel on my Unity roundtable discussion e-list. They are SCREAMING for the State to "Do something!"**
>
> **- Chris Letterman**
> AK Dept. of Ed. IT Services Manager

Alaska's local control policy makes it difficult for the State to mandate district participation in the Unity Project. To encourage district participation, the State will provide a significant package of agency and personal incentives:

- Training at State cost for district data entry staff, teachers, and administrators. Staff will receive training to use the system to report data. Teachers and administrators will receive training to use the data to make policy decisions, measure the impact of programs, and differentiate classroom instruction.
- State purchase, maintenance, and replacement of SIF servers for each district.
- No district financial investment in software or hardware. A district using Excel spreadsheets to store data will be able to report and collect the same data that a district using Power School is able to report and collect.
- District input and feedback solicited throughout Unity development.

The most important reason that districts will participate, however, is simple: they have been asking for the functionality which Unity will provide for more than 10 years, and it is at their request that the State is taking this step.

V. A data warehouse or comparable means for managing and storing . . . data . . .

Although the State of Alaska does not currently have a data warehouse, it has purchased Oracle's 10g Database and 10g Application Server to allow the State to store all of its data in one database. The State selected the Oracle platform for its cohesive, integrated database, data warehouse, and dynamic intelligence reporting. With it, the State will be able to provide web-

based portals for stakeholders to enter, retrieve, and analyze data. End users will be able to customize data presentation, and district administrators and program managers will be able to create secure portal pages; set thresholds and display data using custom graphs and charts; and produce custom reports as PDF documents. It will also provide ad hoc query and report generation and cube analysis capabilities.

The Unity Project will provide the data structure to populate the data warehouse and enable the State to train its staff to use the Oracle platform.

POLICY AND IMPLEMENTATION COMPONENTS

Following is a description of the State of Alaska's current statewide data system with respect to each of the required policy and implementation components. This description illustrates that the State of Alaska has a significant need to improve the current system.

I. Capacity to support research on student academic growth . . .

Teachers, administrators and researchers across Alaska are frustrated by the State's limited capacity to support research. All data research requests are filled by five research analysts in the Division of Teaching and Learning Supports. These analysts are also responsible for compiling Special Education data and reports; managing the State's assessments and High School Graduation Qualifying Exam databases and report; and ensuring that the State's required reports (from the Report Card to the Public to mandatory Federal reports) are completed each year. In addition, these analysts receive raw data from districts; import it into databases; write and run queries to edit check data quality; work with districts to correct errors in data (often by hand); and write and run custom queries to retrieve data and create Excel statistical reports.

In a 3-year period before NCLB, the State's 5 analysts received 2,172 requests for information. Since NCLB, the State lacks time to even track the number of requests it receives.

There are still only 5 analysts.

The State receives thousands of requests for information each year. When the State was still able to track requests, they found that thirty percent of the requests for information came from districts; 20% came from with the Alaska Department of Education and Early Development; 15% came from educational organizations conducting research; and the remaining 35% came from the legislature, the public, other State of Alaska agencies, the Federal government, local governments, and the media.

Additionally, the State is limited in its capacity to support research by its lack of policies. Even transferring information to another State agency requires the negotiation of a specific Memorandum of Agreement. For example the Alaska Department of Education and Early Development entered into a memorandum of agreement with the Alaska Department of Health and Social Services, Division of Public Assistance to identify children who are "categorically eligible" for the Free and Reduced Price Meal Programs in their schools because they are eligible for benefits from the Alaska Temporary Assistance Program of the Food Stamp Program. This memorandum of agreement took six months to develop and implement.

The Unity Project will address all three of the issues described above. First, it will vertically integrate reporting from the State's 54 districts. Districts will not be required to complete many of the reports they do now. Instead, the State's data system will pull data directly from district systems through SIF, eliminating the time-consuming submittal process currently in place. Second, the Unity Project portals will be designed with the specific input of various stakeholder groups. These portals will provide both canned reports and ad hoc reporting capabilities. Finally, the State will develop implementation and policy procedures that will guide data sharing with all of its stakeholder groups, including other State of Alaska agencies. While, these policies may not entirely erase the need for the agreements described above, they will make the process more consistent, transparent, and timely.

II. Capacity to exchange data across institutions . . .

The State of Alaska has very little capacity to exchange data across institutions within the State and even less capacity to exchange data among states. State programs rarely transfer data back to school districts for their analysis. The State and a majority of districts have not implemented the Schools Interoperability Framework (SIF) standards, or other voluntary standards and guidelines. Through the Unity Project, the State of Alaska will implement a SIF vertical reporting infrastructure between the State and districts. SIF will enable diverse applications to interact and share data seamlessly because it defines common data formats, establishes rules of interaction and architecture, and is not linked to a particular operating system or platform.

III. Capacity to provide reports or ad hoc analyses to a wide range of stakeholders . . .

The State of Alaska provides a very limited number of reports to stakeholders. The Report Card to the Public reaches the widest range of stakeholders. The Report Card includes the following information by school: accreditation, grades, enrollment, attendance rate, retention rate, graduation rate, number of high school graduates, grades 7-12 dropout rate, number of grades 7-12 dropouts, enrollment change from previous year, enrollment change due to transfers, student survey rate, parents survey return rate, number of students, parents, and community members commenting about the school, number of school/business partnerships, average volunteer hours per week, percentage of classes taught by highly qualified teachers, and the percent of students who were proficient or not proficient on the Standards Based Assessment, CAT6 Examination, and the High School Graduation Qualifying Examination.

In addition, the State provides reports about the average daily membership by district, state aid to districts, dropout rates, and annual revenues. Online, stakeholders can search for statewide school count by grade span, enrollment totals by schools and districts and by grade and ethnicity, high school graduates by district and by school, special education child count, and teacher and student counts by district and school.

The State of Alaska does not currently have the capacity to provide ad hoc analyses to any stakeholders. The Unity Project will enable the State to provide reports to a wide range of stakeholders using a web-based portal. Further, the reports and the ad hoc capabilities will be designed by the very stakeholders who will be using them in the future.

IV. Capacity to implement and then sustain the statewide longitudinal data system . . .

The State of Alaska's normal funding from the Alaska Legislature is not sufficient to implement the Unity Project. It is however, sufficient to sustain the statewide longitudinal data system over time. We know this is true because the State has been implementing components of the Unity Project for several years. At each point, significant Federal funding has allowed the State to make major investments in the project. For example, Federal funding enabled the State to develop the Alaska Student Identifier System. The State has demonstrated that it has the staff and technical resources as well as the training to implement these major components and maintain the systems after its implementation.

Additionally, the Unity Project will build sustainability throughout the project. The State will work closely with the Alaska Legislature to increase key budgetary lines to mitigate maintenance and disaster recovery. The State will provide significant professional development to its staff, district staff, teachers, and administrators. These activities will ultimately enable districts to make data driven decisions and provide them with greater access to vital information about their students, their teachers, and their achievement over time.

V. Procedures that support access to the longitudinal system's database by researchers . . .

At this time, the State of Alaska does not make its database collections directly available to researchers, unless they are specifically contracted by the State of Alaska to conduct business on behalf of the Department of Education and Early Development. Additionally, other State of Alaska departments must enter into memoranda of agreement to access the Department of Education and Early Development data. The Unity Project will specifically develop legal and appropriate policies through an extensive 20-month stakeholder input process.

Unity will allow ad hoc report generation for the first time. Access will be driven by pre-established permissions.

VI. Clear evaluation criteria . . .

The State of Alaska will develop clear evaluation criteria for determining successful development/implementation of the statewide longitudinal data system as part of the Unity Project. The evaluation is embedded in the Unity Project's development and implementation and will include measurements, such as: implementation benchmarks, budget analysis, Portal Review Committee feedback (technical performance, data availability and quality, report availability and quality), utilization statistics (how many people are using the system, how many people attend the various trainings offered, how many people attend stakeholder meetings), and user enrichment (how districts are using the data system, how it has changed the State's need for manual verification processes, data requests, reporting, and analysis capabilities).

In addition, the State will correlate student achievement and Adequate Yearly Progress attainment to district and teacher use of the Unity Project's tools, including training, canned reports, and ad hoc queries. The State will know the Unity Project is successful when data sharing between the State and districts is automated, and teachers and districts are using it to

make educational decisions that effect student outcomes.

2) Project Design

Present a clear description of plans for developing and implementing the statewide longitudinal data system.

The Unity Project will put high-quality data in the hands of school staff and train them to use it effectively.

The Unity Project will put high-quality data in the hands of school staff and train them to use it effectively. It will do so by creating a vertically integrated statewide longitudinal data system, capable of providing reliable information about the condition and progress of education in the State of Alaska to students, parents, teachers, schools, districts, the State, researchers, universities, the business community, the public, and the Federal government. The Unity Project will enable the State of Alaska and districts to make data-based decisions about educational programs; implement education practices support learning and improve academic achievement. It will allow districts and the State to ask and answer questions about the quality of education in Alaska, address the statistical connections between education conditions and education outcomes, address the causal effects of programs, practices, and approaches on education outcomes, and address the underlying mechanisms and processes by which causal effects occur.

The Unity Project has five goals:

1. To provide districts with information that can be used to improve student achievement.
2. To provide a better means of evaluating educational progress and investments over time.
3. To provide school districts and the Alaska Department of Education and Early Development access to data necessary to comply with federal reporting requirements delineated in the No Child Left Behind Act of 2001.
4. To provide an efficient, flexible, and secure means of maintaining longitudinal statewide student-level data.
5. To decrease redundant entry of data and improve data quality at all levels.

The State began the Unity Project more than 15 years ago with plans for statewide use of a unique student identifier. That critical project was completed in 2001, when the Department began using the Alaska Student Identifier System (ASIS). Since then, the State has also begun to collect student-level data electronically to count students by district and allocate funding. During the 2001-2002 school year, the State also began to collect special education and vocational education data.

The Unity Project has seven phases. The State will complete Phase 1: Data Dictionary on June 30, 2005. The Data Dictionary uses available standards from the Education Data Exchange Network (EDEN), the National Center for Education Statistics (NCES) data handbooks, and Common Core Data (CCD) elements and will assure the same definitions, codes, and periodicity are used at all levels: school, district, and state. The Data Dictionary includes business rules for data format, acceptable values, missing data options, and logical comparisons to prior data.

The State is requesting Federal funds to complete Phases 2 – 4:

- Phase 2: Development of Data Structure will incorporate the State's data collections and the new data dictionary to form one authoritative data warehouse. This phase will build the data warehouse environment utilizing extraction, transformation and loading of existing data.
- Phase 3: Portal Construction will construct customizable stakeholder web portals for report viewing and data analysis via business intelligence capabilities and ad hoc querying. The State has identified six stakeholder types: internal, Federal, district (sub-portals for administrators, teachers, parents, students), legislative, research and public. Security of data (including Family Educational Rights and Privacy Act (FERPA) requirements and segmentation of district information) will be assured through integrated security and permission controls as well as secure socket access.
- Phase 4: School Interoperability Framework (SIF) Integration will implement the statewide vertical reporting structure, utilizing SIF, and provide the next generation infrastructure pieces to support electronic data acquisition.

Until the completion of Phase 4 the State will be operating two parallel data systems. It will maintain the existing system of data collection and reporting until all 54 districts have integrated the SIF agent.

With basic infrastructure in place, the State will be able to complete Phase 5 through 7 independent of Federal assistance. These enrichment phases will integrate financial, facilities, and teacher staffing and certification data into the system. In each of these three later phases, the State will look inward toward incorporating housed data first, then begin efforts to electronically collect data via SIF.

The State is confident that it will be able to implement these phases by building on the practices and policies developed while implementing Phases 2, 3, and 4. Additionally, the State will have the personnel, training, and equipment in place to complete the data integration.

The State will implement the Unity Project focusing on four issues during each phase: technical components, policy and implementation procedures, stakeholder involvement, and training. The following table summarizes the Unity Project's implementation model.

Phase	Technical Components	Policy and Implementation Components	Stakeholder Involvement	Training
Phase 2: Development of Data Structure (9 Months) Create relationships among data elements to enable analysis and data mining.	▪ Assess functional linkages among data elements ▪ Assess relationships required for mandatory reporting ▪ Write contract specifications and hire vendor to develop, test, and refine data structure	▪ Analysis of business needs ▪ Data Oversight Committee (DOC) develops policy recommendations, evaluation procedures, and provides program oversight ▪ Hire and train Unity Coordinator, 3 Analyst Programmers, and Educational Associate	▪ Convene Portal Review Committees (PRCs) for stakeholder input and feedback ▪ Plan and initiate public relations	▪ Staff training ▪ Assess user training needs ▪ Develop E-modules for district staff training ▪ Develop training for district data entry and assessment staff ▪ Staff training in data warehouse and server administration
Phase 3: Portal Construction (20 months) Create the interface between users and the information they need to improve student achievement.	▪ Assess user needs for canned and ad hoc reports ▪ Write contract specifications and hire vendor to construct portals for internal, district, researcher, legislature, public, and Federal use ▪ State supports two data systems -- old and Unity	▪ Policy and procedures recommendations developed to guide portal construction ▪ Coordinator interprets State needs and legal requirements to users, and user needs to technical staff ▪ Finalize policies for access, maintenance, etc.	▪ Regional stakeholder meetings to gather stakeholder input ▪ DOC writes policy templates, sends them to PRCs for review and feedback ▪ PRCs work with users to refine policies	▪ Provide training to data entry and assessment staff ▪ Develop and pilot E-module course for teachers and administrators ▪ Staff training in portal development and maintenance
Phase 4: SIF Integration (6 months) Set up SIF servers to pull data directly from district databases, reducing redundant data entry and errors.	▪ Write technical specifications and contract with vendor for SIF integration of 54 school districts ▪ Outfit and install district servers ▪ State completes the Unity data system and phases out use of the old system	▪ Publish policies and procedures related to permission controls ▪ Publish server maintenance and replacement policies	▪ Work directly with districts to integrate the SIF agent ▪ Portal Review Committee meetings to evaluate Unity Project products	▪ Finalize and disseminate user manuals ▪ District training to use the completed system

TECHNICAL COMPONENTS

Phase 2: Development of a Data Structure

After the State completes the data dictionary, it will be able to build a data structure: a set of established relationships among different types of data. For example, the data structure will create relational tables of the State's student assessment data, which is currently maintained in 49 different databases. As a result, the State will be able to track individual students over time and analyze factors associated with student achievement.

The data structure will be a road map for each data element added to the system.

With the purchase of the Oracle 10g Database and 10g Application Server, the State has completed the first step in creating a data structure. The next step in this process will be "extraction, transformation, and loading" (ETL). Staff will work with a contract vendor to design an ETL process, using heterogeneous ETL architecture. The ETL system will extract data from several sources, transform and aggregate the data to match the target data warehouse rules, and load the transformed data into the data warehouse database. The ETL transformation element will be responsible for data validation, accuracy, type conversion, and business rule application. The ETL system will be flexible to meet the current needs of the State's data and to accommodate future changes, including system expansion over time and changes in reporting and tracking requirements.

The third step in this process will be to analyze the relationships among data elements and create data tables and relationships linking those tables to allow for efficient data extraction and time-based analysis. As part of this step, Alaska will develop a data extraction model for use in loading the new data warehouse structure with pertinent data from the State's existing 26 separate databases. Then the State will populate the data warehouse with its existing data.

At the end of Phase 2: Development of a Data Structure, Alaska will have completed development of a statewide longitudinal data system architecture. This is the foundation for our envisioned statewide longitudinal data system. Without this architecture in place, the State will not be able to vertically integrate its data with that of its 54 school districts; maintain an efficient, flexible, and secure means of maintaining longitudinal statewide student-level data; or provide data to school districts to meet federal reporting requirements and improve student achievement.

The State has identified six stakeholder types: internal, Federal, district, legislative, research and public.

Even if no further work is completed, this architecture provides a self-contained system from which the State will be able to collect and analyze data.

Phase 3: Portal Construction Phase

During Phase 3: Portal Construction of the Unity Project the State will construct six portals customized to the needs of Alaska's educational stakeholders. The web portals will improve student achievement by giving districts, teachers, and other stakeholders easy access to the information they need to analyze student data for factors associated with improving achievement. Research indicates that the use of high-quality data, in the hands of school staff trained to use it effectively, can improve instruction (Protheroe, 2001).

The Oracle Application Server supplies a technology base for online analytical processing (OLAP), data mining, reporting, and customizable portals. End users will have the ability to customize the presentation of data they are researching, and district administrators and program managers will be able to customize secure portal pages, set thresholds and display data using graphs and charts, or produce custom reports as PDF documents, ready for downloading or printing. It will also provide ad hoc query and report generation and cube analysis capabilities.

To develop these portals, the State will continue the extensive stakeholder input process begun in Phase 2, starting with a comprehensive needs assessment and followed by regional stakeholder meetings. Each stakeholder portal will have a development phase and a beta phase in which stakeholders use their portal and provide feedback to the portal developers. Stakeholders will provide feedback to a help desk and through questionnaires embedded in the portal itself. Each beta portal will have a month-long pilot stage. This stakeholder involvement is also described under the Stakeholder Component section below.

At the end of Phase 3: Portal Construction, the State will have completed a set of web portals featuring canned and ad hoc reports, customized to the needs of the six types of users. The portals will allow educational stakeholders to share information and collaborate. They will provide easy-to-use tools to view and enter educational content; streamline reporting capabilities to local, state, and federal agencies through pre-defined automated reports; allow on-line analytical processing that districts, teachers, parents, researchers, and others can use to improve student achievement; and provide timely, accurate, and user-friendly dissemination of data, reports, and analyses to stakeholders.

The design of the portals will allow for personalization, integration, security administration, and content management. It will also ensure flexibility to facilitate growth and continued data collection and research by implementing business intelligence tools that allow for longitudinal education research and the development and use of innovative analytical tools and reports to inform policy and decision-making. *From a user standpoint, this is the most important aspect of the Unity Project because this phase will bring information that they can use to improve student achievement directly to stakeholder.*

At the end of this phase, the portals will be self-contained and accessible to the public even if no further work is completed on the Unity Project.

Phase 4: SIF Integration

SIF integration will make it possible for each school district's data collection system – whether it is as complex as PowerSchool or as simple as Excel – to share information seamlessly with the State's system. This aspect of the Unity Project will improve student achievement in the State of Alaska in three ways.

First, it will eliminate redundant entry of student data, saving significant staff time statewide. This is time that districts can use to support teachers and students directly. Second, it will enable districts to expand the student-level data they have available for analysis. Finally, it will ensure that district data is accurate and timely.

The State will integrate the Schools Interoperability Framework by providing a server to each district, customizing the SIF agent to translate between the district's system and the State's. During this phase, the State will work individually with each district to 1) conduct an assessment of the district's data and needs; 2) map the district's student information system's data repository to the SIF element; 3) map SIF data elements to the State's data elements; and 4) test data requests and data submitted.

At the end of this phase the State will have a vertically integrated data system that enables diverse applications to interact and share data seamlessly. The SIF agents at the local district level will be able to communicate with the State SIF zone. The State will be able to collect data from multiple agents and – looking to the future – could enable publishing information downward to multiple agents. For example, the State data warehouse might publish teacher certification data to districts. A diagram of the vertical data flow is included in Appendix B.

POLICY AND IMPLEMENTATION COMPONENTS

Development of the policy and implementation components of the Unity Project will improve student achievement by automating data-sharing processes and enabling legal and appropriate access to student-level data. The State has addressed several policy and implementation components. To do so, it created a Data Oversight Committee (DOC).

The Data Oversight Committee includes the Unity Coordinator, the Deputy Commissioner of Education, the IT Manager, the Data Manager, a Database Administrator, an Educational Specialist, the NCLB Administrator, the Assistant Director of Teaching and Learning Support, a FERPA expert, and the Department of Education and Early Development's Internal Auditor and Finance Director.

During Phase 1: Data Dictionary, the Committee has 1) developed provisions for the needs of districts that have limited ability to participate in technology systems; 2) conducted a cost/benefit and sustainability analyses of dynamic vs. static data extraction systems and has chosen to use a static data extraction system; and 3) began to analyze the reporting and decision support needs of key stakeholders. As a part of the Unity Project, the DOC will draft policy recommendations for the PRCs, request their feedback, and – integrating their technological, legal and administrative expertise – develop the final policies for access and support.

During the Unity Project, Alaska will focus on the following policy and implementation components. First, the State will complete an analysis of the reporting and decision support needs of key stakeholders. The process for involving key stakeholders in this analysis is described in the following section. Second, the State will develop efficient administrative processes, infrastructure components, and policy commitments to effectively maintain the Unity Project. In particular, the State will focus on processes and policies to assure continued data collection and quality; developing portal permission policies and procedures; dissemination of data and analyses results; data security and confidentiality; continued funding; adequate human resources; enabling legislation; and adequacy of hardware, software, and networking capabilities. Third, the State will develop evaluation criteria for determining successful implementation of the Unity Project. Finally, the State will also develop procedures that support access to the Unity

Project by researchers under conditions specified by the State and in compliance with Federal and State privacy regulations, including FERPA.

STAKEHOLDER INVOLVEMENT

In all of the Unity Project's components, the State will include stakeholder input and feedback. The Unity Project will use four mechanisms to ensure significant stakeholder involvement in the development of the Unity Project data system.

First, the State will develop Portal Review Committees for each of the major stakeholder groups: State staff, districts (including teachers, administrators, parents, and students), researchers, legislators, Federal users, and the public. Each Portal Review Committee will include three to five representatives. Representatives will receive a stipend for their work.

The Portal Review Committee members will in turn work with individuals in their field. The district Portal Review Committee may include a Federal Programs director, a teacher, a parent, a principal, and a data entry clerk. These members will liaise with their peers. The Federal Programs director might phone his or her colleagues at other districts; the principal might make a presentation at a principals meeting and request feedback and input; the teacher may make regular presentations at staff meetings; the parent might make regular presentations asking for feedback from the PTA; and the data clerk might call his or her colleagues at other schools.

The State's guiding principle in development is functionality as defined by users, though not all user requests can be legally or technically accommodated.

These members will meet regularly with the State to complete the following tasks: analyze the reporting and decision support needs of stakeholders; develop user policy recommendations; identify training needs; attend regional stakeholder meetings; develop portal design, data, and report recommendations; develop sample reports, test portal beta models; and provide ongoing feedback and input to the State.

Second, the State will hold regional and stakeholder-specific meetings to complete a comprehensive needs assessment. These regional meetings will solicit input about the portal's design and help develop the analytical and reporting capabilities to be made available. The Department will hold these meetings in Juneau, Fairbanks, Anchorage, Kotzebue, and Nome. The Department will also make presentations at stakeholder-specific meetings, such as the No Child Left Behind annual state conference, the Alaska Federation of Natives annual meeting, and to groups of legislators.

Third, the State will pilot the portal system statewide and request feedback from users. Each stakeholder portal will have both a development phase and a beta phase (during which stakeholders use their portal and provide feedback to the portal developers). Stakeholders will provide feedback to a help desk and through questionnaires embedded in the portal itself. Each beta portal will have a minimum of a month-long pilot stage.

Fourth, the State will conduct public relations with key stakeholders throughout the project. The Department will create a web site that provides such information as updates on the Unity Project,

sample reports, planned activities, and State contacts. In addition, the State will develop brochures and other written materials about the project for distribution at stakeholder meetings. The State will work with the media to ensure broad dissemination of the project's goals and activities.

TRAINING COMPONENT

The Unity Project will provide significant training to improve both the State's capacity to implement and sustain the longitudinal data system and local capacity to monitor and improve teaching and student achievement.

For State staff, the Unity Project will provide training to increase the Department's knowledge and skill using Oracle's Database Administrator, Application Server Administrator, Portal Developer and Discoverer tools. State staff will receive the following training: 1) Administration Workshop 1 and 2; 2) Warehouse Administration; 3) Application Server Administration 1 and 2; 4) Building Corporate Portals with Java; 7) Create Queries and Reports; and 8) Develop End User Layers.

For district-level data entry personnel, the Unity Project will provide training to maintain the quality of submittals and timeliness of data collection and reporting. The State will conduct a survey of all 54 districts to determine training needs; widely publicize training; and track districts attendance. Each fall the State will include Unity Project training with its regional current data training sessions in Anchorage, Juneau, and Bristol Bay.

In addition, the State will build on the State's existing bank of e-learning courses to provide training to district staff. This is a recognized model of training, originally developed by Alaska, and used by other states. These interactive modules include pretest and posttest components, as well as an enterprise management system that tracks student progress and achievement in the courses of study. The modules are designed to be facilitated by a site-based instructor, who has already completed the modules or who has training in the content area. This training will be available all the time, making it easy for districts to schedule.

In addition, the Unity Project will provide training to two district staff members from each of the State's 54 districts at the very end of the project. This training will provide each district with basic knowledge of how to use the Unity data system, such as entering data, the SIF agent's role, how and when the State will pull data, and querying the data for analysis. The State will pay for two district staff members to attend, but additional staff will also be able to attend the training.

For teachers and administrators, the Unity Project will develop and implement on-line e-learning courses that provide instruction to help teachers implement data-based instruction. The State will model the course content on the "Data 101-102-103 for Educators" developed by the Assessment and Data Services of the Lakota Local School District in Liberty Township, Ohio. The Lakota Local School District experienced marked success with this curricula in developing professionals who can readily interpret and analysis data to make sound decisions in their schools and classrooms. The State will also build on the State's existing bank of e-learning courses to provide training to teachers and administrators. This training will be available all the time, making it

easy for administrators and teachers to schedule.

This training will instruct teachers and administrators to "ask the right questions" and use student-level data to analyze student achievement. An Algebra teacher in Fairbanks will learn to review the 8th grade standardized assessment scores for her incoming 9th grade students. She will learn to ask questions, like[1] "What teaching strategies will work best with these students? What do they need help with? What do they understand and what can they apply?" She will also learn how to mine the Unity Project data to find answers to these questions.[2] She will learn to run a report from Unity that summarizes the classes' performance on each Alaska Math Standard, identifying which standards the students need the most work on and which standards they have already mastered. She will also run a report that shows her how individual students performed on each standard. As she develops lesson plans, she will be able to differentiate her instruction based on each student's performance on the 8th grade assessment.

District administrators will also receive this type of training, but their questions will be different. They may learn to ask and answer questions about program evaluation, such as "Are our programs producing student learning?" and "Which schools need more assistance?" Districts may also learn how to ask and answer questions about instructional leadership, such as "Are teachers and instructional strategies in given areas producing results? What kinds of professional development would help? What does this teacher need to ensure student competence?"

For the all user types, the Unity Project will develop intuitive User's Manuals. The User's Manuals will provide general information, database structure with codes, definition of data fields, reporting requirements (for districts only), frequently asked questions, and instructions to create meaningful queries and ad hoc reports.

3) Project Personnel

Present a clear description of the applicant's personnel capacity...

The State of Alaska's key personnel for this project provide a wealth of experience, including policy development and experience in working with the State Legislature, database development, data analysis, and teacher training. These skills will ensure the success of the Unity Project. Following is a list of their credentials as well as their role in this project.

Karen Rehfeld, Deputy Commissioner for Education and Early Development: Karen Rehfeld was appointed Deputy Commissioner of Education and Early Development on June 25, 2003. As Deputy Commissioner, she is involved in every policy and administrative area for which the department is responsible. She is in a key role working with the Legislature and the State Board of Education and Early Development in budget, legislative, regulatory, and other activities. Before becoming Deputy Commissioner, Ms. Rehfeld was the department's administrative services director and worked as a fiscal analyst in the legislature. She was also an administrator for a public accounting firm and a private consultant to the offices of the governor, lieutenant

[1] Protheroe (2001) provides a list of sample questions as a place to start.
[2] Meyers and Rust stress the importance of helping teachers learn how to "assess their own work and its impact on their students" (2000, 34).

governor and various departments of State government. Ms. Rehfeld holds a Bachelor of Arts degree in Political Science from the University of Idaho, Moscow. She will have overall responsibility for the implementation of the Unity Project, serve on the Data Oversight Committee, and ensure ongoing project evaluation. She will devote approximately 10% of her time to this project.

Chris Letterman, Information Technology Services Manager: Mr. Letterman is responsible for managing the Alaska Department of Education and Early Development's Information Technology section. He has been with the State for seven years. During that time, Mr. Letterman has grown the Information Technology section to its current configuration with multiple local area networks and computing resources located throughout the State with over 400 hosts, 35 servers and 23 staff. Prior to his position with the State of Alaska, Mr. Letterman was the MIS Director for the largest daily paper in Southeast, the Technical Lead for CellularOne, and an Electronics Technician in the U.S. Navy. He has studied Humanities at the University of Alaska and Information Science and Data Processing while at the University of Louisville. Mr. Letterman will coordinate and oversee the technical implementation of the Unity Project, devoting approximately 50% of his time to this project.

Katherine Long, Database Administrator/Analyst Programmer: Ms. Long has more than 15 years' experience managing student-level data, expertise in designing and developing functional information systems, and extensive knowledge of database theory and design. She is responsible for planning, creating, and testing databases and user applications using web/database or client-server/database interfaces. She has been involved in many of the projects that led to the development of Unity. In particular, Ms. Long was a member of the ASIS project to develop and implement a Student ID. Ms. Long has a Bachelor of Arts in Management of Computer Information Systems from the University of Alaska Southeast. She will work on the design and implementation of the Unity Project and devote 50% of her time to this project.

Erik McCormick, Research Analyst IV: Mr. McCormick has been with the State for ten years and is currently responsible for planning and oversight of all data-related activities including, but not limited to: unit work plan, maintenance, security and reporting of aggregate and disaggregate assessment results; federal programs data; Common Core Data (CCD), including Classified Staff Accounting, Certified Staff Accounting, and Paraprofessional Staff Accounting, High School Graduates, Dropouts; Education Directory information and Rolodex database. During his tenure, he has served as the lead Assessment Analyst during the transition to a "high-stakes" assessment and accountability system; designed and created all assessment databases for the Statewide Assessment System; and coordinated with testing vendors to obtain raw assessment data files. Mr. McCormick will play a lead role in developing policies for data sharing, assist in developing training components, oversee data analysis, and work closely with the Portal Review Committees. He will devote 25% of his time to this project.

Paul Prussing, Deputy Director, Division of Teaching and Learning: Mr. Prussing oversees fiscal management of the division's budget; represents the department on statewide committees and at statewide and national meetings; and coordinates personnel development activities for division staff. Prior to his current position, Mr. Prussing served as the Reading Excellence Act Program Manager; the GEAR UP ALASKA Program Manager; Title I/Migrant Program

Coordinator; Title I /Neglected and Delinquent Program Manager; and the State of Alaska, Youth in Detention Program Manager. In addition, Mr. Prussing has been a secondary math and science teacher and a youth counselor. He will implement parts of the Unity Project's public relations, serve on the Data Oversight Committee, and develop policies and procedures, devoting approximately 10% of his time to this project.

Cathy Anderegg, Assessment Administrator: Ms. Anderegg facilitates, oversees, and directs development of appropriate models for large-scale assessment of student achievement as required by No Child Left Behind. Previously, for the State of Alaska she coordinated the development and implementation of Special Education paraprofessional e-learning modules, SET for Life. Ms. Anderegg has also developed web-based courses. She has taught at levels from elementary school to the University of Alaska Southeast. She has Bachelors of Arts degree in French Language and Civilization from the University of California at Berkley, Masters of Education in Educational Technology and Leadership from the University of Alaska Southeast, and will complete an Educational Doctorate in Educational Technology Leadership in 2006. Her role in the project will be helping the Unity Coordinator create staff development for district-level personnel. She will devote approximately 10% of her time to this project.

4) Resources

Provide a description of the resources available to support the project...

The State of Alaska has committed significant resources in personnel, equipment, training, and Data Dictionary Development to the development and implementation of the Unity Project.

Personnel: In total the State will contribute more than 1,800 hours of staff time ($66,827) to the Unity Project. Almost 150 of these hours were committed during Phase 1: Data Dictionary of the project which will be completed in June 30, 2005. The State is also contributing 936 staff hours to training to increase the State's knowledge and skill using Oracle's Database Administrator, Application Server Administrator, Portal Developer, and Discoverer tools. This commitment will ensure that the State is able to sustain a fully functional statewide longitudinal system over time.

In addition, the State will provide the funding through general funds and/or other grant funds to cover a portion of the positions hired through this grant. In year one, the State has asked for full funding for five positions. In year two, the State will provide 25% funding for those positions, and in year three, the State will provide 50% funding for them. The State has implemented this funding pattern for two reasons. First, the department will be able to incrementally fund these positions from the general fund or from other grant funding. Second, the State felt that it is essential to demonstrate a commitment to the success of this project in the long-term.

Equipment: The major commitment that the State has made to the implementation of the Unity Project to date was the purchase of Oracle's 10g Database and 10g Application Server. This represents a $196,000 contribution to the Unity Project. The State leveraged several grant funding sources to pay for this purchase, and plans to continue to provide the cost of Oracle's ongoing maintenance ($40,000 a year). This commitment will also sustain a fully functional statewide longitudinal data system into the foreseeable future. In addition, the State purchased

HP server hardware to support this project. This was an investment of $69,000 funded through a grant. Finally, the State invested in a Red Hat LINUX Operating System and licensing agreement (this is the server operating system that will support Oracle). With two years of support, maintenance, and system administration training, this is a $15,000 investment in this project.

The State has also made a commitment to maintain the district SIF servers that it purchases through this grant. The Department will leverage Quality School Grant funding to upgrade and replace these servers as needed.

Training: The State spent approximately $50,000 a year to provide training to districts to use the Alaska Student Identifier System (ASIS). This is a commitment of $200,000 in training that the State has already invested in the Unity Project. In addition, the State will continue to provide this training through the next three years, a commitment of $150,000, and into the foreseeable future. This training was described in greater detail under the Training Component narrative.

Alaska Student Identifier System (ASIS): The State contracted with ControlTec to develop its student identifier system at a total cost of $32,000. The State has provided two years of maintenance at $12,000 a year and will continue to do so for the foreseeable future.

Data Dictionary Development: The State contracted with ESP Solutions Group Inc. to develop an Online Data Dictionary. The total cost for this development was $17,000.

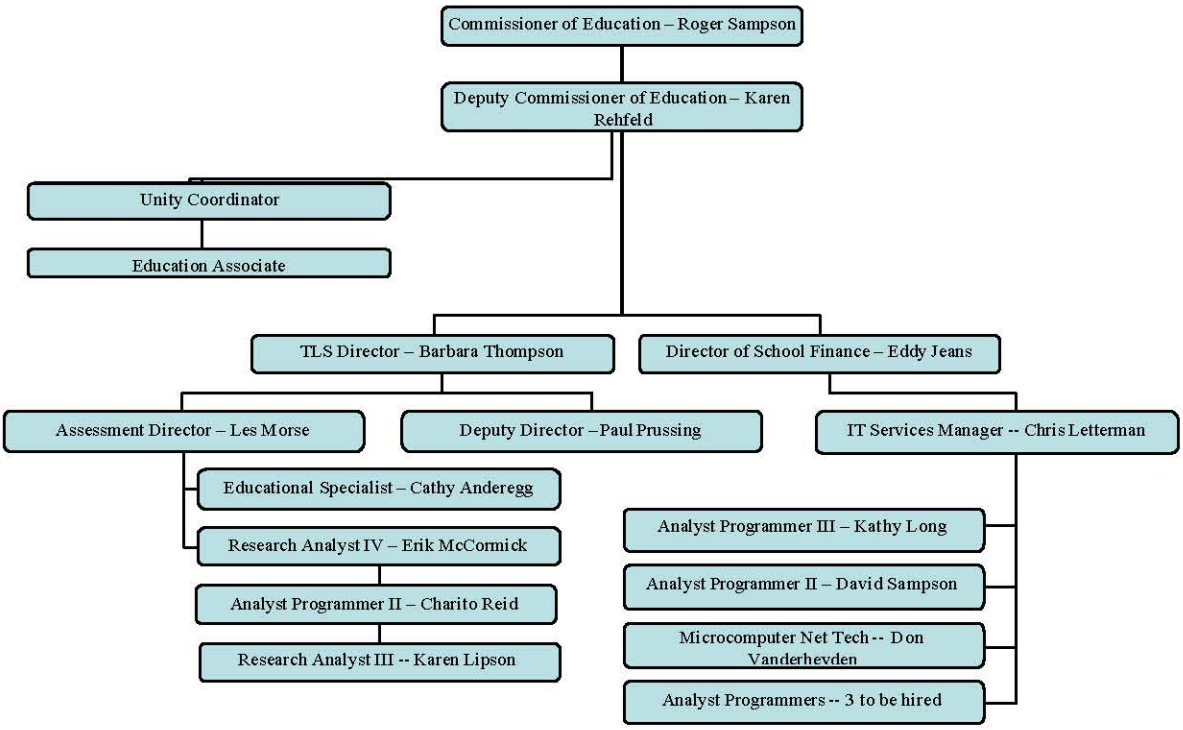
Sustainability: In addition, to the specific financial commitments that the State described above, the State will work closely with the Alaska Legislature to ensure continued funding and adequate human resources for this project. The project's evaluation will be used to demonstrate to the Legislature the necessity of the Unity Project. In addition, the Legislature's use of the Unity Project portals will provide evidence of its utility.

5) Management Plan

Provide a description of how the SEA plans to achieve the objectives . . .

A timeline for the Unity Project's development and implementation is included in Appendix A. The timeline describes the major tasks to be completed during the project period and the person or people responsible for its implementation.

The Alaska staff working on the Unity Project fall organizationally under two of the State's divisions: the Division of Teaching and Learning Support and the School Finance Division. Further, the Unity Coordinator who will be tasked with overseeing the project is located in the Commissioners Office under the direction of the Deputy Commissioner. The primary means by which the State will coordinate these various staff members is through the Data Oversight Committee. As described earlier, the Data Oversight Committee will be comprised of the Unity Coordinator, the Deputy Commissioner, the IT Manager, Analyst Programmer III, Research Analyst IV, Education Administrator, the Department's NCLB Administrator, the Assistant Director of Teaching and Learning Support, a FERPA expert, the Department's Internal Auditor, and the Finance Director.



The Deputy Commissioner will have overall responsibility for ensuring that the Unity Project is implemented. Under her direction, the Unity Coordinator will be responsible for overseeing the Unity Project implementation. The Unity Coordinator will recommend department policy and directives for sharing and collecting data/information/reports; know what other states are doing to build state wide data systems; understand No Child Left Behind reporting requirements and regulations; suggest working policies to the State regarding best ways to serve the end users; convene and coordinate the Portal Review Committees; interpret state policies to Portal Review Committees; understand assessment reporting protocol; coordinate several divisions working on the Unity Project; market department data initiatives and information resources to districts; make decisions on dissemination of department information in regards to policy, security and legal issues; manage the help desk; and work closely with the U.S. Department of Education and other state departments of education to share information and establish partnerships among states for data sharing. In addition, he or she will provide biannual evaluation reports to the Data Oversight Committee.

Under the Unity Coordinator, the Education Associate will provide administrative support for the Unity Project, coordinate meetings and training, publish manuals and public relations materials, and provide help desk support for Unity Project beta testers during Phases 3 and 4.

Under the direction of the Director of School Finance, Chris Letterman, IT Manager will be responsible for the following: hiring, supervising, and evaluating the three programmer/analysts to implement the Unity Project; serving as a member of the Data Oversight Committee; planning and coordinating all staff training required to implement the Unity Project; developing and managing contracts to develop the Unity Project products; ensuring implementation and

compliance with the State Security Policy along with any additional security measures unique to the Department.

Under Chris Letterman, Kathy Long, Analyst Programmer III, manages the department's databases, programs databases, and develops Web applications. She will assist Chris Letterman develop the contract for the Unity Project products, serve as a members of the Data Oversight Committee, and work directly with the contractors to develop the data structure and portals, devoting 50% of her time to this project.

Also under Chris Letterman, David Sampson, Analyst Programmer II, and three additional Analyst Programmers will work with the contractors on a day-to-day basis to create the Unity Project's data structure, portals, and SIF integration. They will work closely with the Unity Coordinator and the Portal Review Committees to create portals that meet the needs of stakeholders. In this process they will refine work completed during each phase, design sub-portals, and populate the data warehouse. In addition, the Analyst Programmers will continue to maintain the "old" system, while building and operating the "new" system. David Sampson will devote 35% of his time to this project and the three additional Analyst Programmers will devote 100% of their time to this project.

Also under Chris Letterman, Don Vanderheyden, Microcomputer Net Technician will provide support for the user's computers software, hardware and printers. He will ensure that all required patches and security updates are applied; ensure that server's and user's data are back upped nightly and perform data restored; and help manage the local area network by providing trouble shooting of network problems and user account and file maintenance. He is also responsible for the installation, configuration and upgrading of the Oracle 10g Database and Application Server software in both a production and test environment on four Redhat Linux 3.0 Enterprise servers. He will devote 25% of his time to this project.

Under Chris Letterman, Charito Reid, Programmer II is the Department Webmaster: she manages internet and intranet sites, designs and codes webpages in either raw HTML (notepad) or web page editor (Dreamweaver MX), edits and manipulates images using Adobe Photoshop 7.0/Image Ready, builds queries and programming, and designs web-enabled data collection (ColdFusion). She will work with the contractors to build the Unity Project portals. She will devote 25% of her time to this project.

Under the Direction of Assessment Director, Les Morse, Erik McCormick, Research Analyst IV supervises and directs the work of the four analysts who comprise the Data Management Unit. He will serve as a member of the Data Oversight Committee; assist Chris Letterman develop contracts for the Unity Project products; provide information to the Portal Review Committees and recommendations regarding data for Assessment, Accountability and Student Information; and he will coordinate training of district personnel who enter data into the Unity data system. He will devote 25% of his time to this project.

Also under Erik McCormick, Karen Lipson, Research Analyst III is responsible for managing the Special Education Part B data; analyzing data and preparing statistical reports related to special education student assessments, enrollment, graduates, discipline, placement,

disproportion and exits. She will work closely with the Portal Review Committees and the Unity Coordinator to design the Portals' reporting and querying features. She will devote 10% of her time to this project.

Under the Teaching and Learning Support Director, Paul Prussing, Deputy Director, manages the division's budget; represents the department on statewide committees and at statewide and national meetings; and coordinates personnel development activities for division staff. He will implement parts of the Unity Project's public relations, serve on the Data Oversight Committee, and develop policies and procedures. He will devote 10% of his time to this project.

Under Assessment Director, Cathy Anderegg, Education Administrator, provides technical support and assistance for standardized testing. She will serve as a member of the Data Oversight Committee and work closely with the Unity Coordinator and Portal Review Committees to create the Portals' report and querying features. In addition, she will work closely with the Unity Coordinator and Erik McCormick to develop training modules for data entry staff, teachers, and administrators. She will devote 10% of her time to this project.

The State of Alaska will contract with various consultants to implement the major phases of this project: 1) to develop and implement a data structure, 2) to develop six portals, and 3) to integrate the Schools Interoperability Framework.

The Unity Project will use the State of Alaska's procurement policies which is a two-month process requiring the State to establish criteria for the RFP to be evaluated by; give public notice; provide written answers to questions and provide the answers to all potential offerors; keep the unopened proposals in a secured place until the published opening date and time; keep a register of the proposals; evaluate the proposals according to the criteria set out in the RFP; and issue a Notice of Intent to Award form to all persons who submitted a proposal. The Department will establish an evaluation committee to evaluate the proposals.

Describe what procedures will be used for ensuring feedback and continuous improvement...

The State will evaluate the implementation of the Unity Project to ensure feedback and continuous improvement in the quality and operation of the resulting statewide longitudinal data system. The evaluation is embedded in the Unity Project's development and implementation and will include measurements, such as: implementation benchmarks, budget analysis, Portal Review Committee feedback (technical performance, data availability and quality, report availability and quality), utilization statistics (how many people are using the system, how many people attend the various trainings offered, how many people attend stakeholder meetings), and user enrichment (how districts are using the data system, how it has changed the State's need for manual verification processes, data requests, reporting, and analysis capabilities).
The following table describes the evaluation tools.

Implementation Issue	Data Collection
1. Implementation benchmarks	Review of project records and benchmarks
2. Budget analyses	Analysis of actual costs compared to projected expenditures
3. Technical performance	Portal Review Committee feedback about technical performance, data availability and quality, report availability and quality
4. Utilization	How many people are using the system, how many people attend the various trainings offered, how many people attend stakeholder meetings
5. User enrichment	How districts are using the data system, how it has changed the State's need for manual verification processes, data requests, reporting, and analysis capabilities
6. Stakeholder support	District implementation of SIF and use of data system, stakeholder use of portals

In addition, the State will correlate student achievement and Adequate Yearly Progress attainment to district and teacher use of the Unity Project's tools, including training, canned reports, and ad hoc queries. The State will know that it successfully implemented the Unity Project when data sharing between the State and districts is automated and teachers and districts are using their access to data to make educational decisions that effect student outcomes

As needed, the State will revise the Unity Project's implementation plan to reflect recommendations from the evaluation. The Deputy Commissioner will be responsible for ensuring that modifications are made to the project during its implementation to ensure that the Department meets its benchmarks. Under her guidance, the Data Oversight Committee will develop a plan to address any problems or issues that arise during the biannual progress evaluation. The Data Oversight Committee will prepare a written plan detailing tasks and responsible parties for ensuring that the State addresses issues raised in the evaluation.

Provide a clear description of plans for requiring, and collaborating with, districts...

The State of Alaska currently requires public schools and districts to submit data needed to prepare a report card to the public. According to regulation, each school is required to prepare a school report card. This is the only regulation mandating data submission in the State. In order to ensure that districts collaborate with the Department, the Unity Project will implement the following tasks.

First, the State will conduct public relations with district-level staff to share the Unity Project's goals, explaining three important issues: 1) the resulting Unity Project data system will help alleviate current duplication of data entry processes and hours spent compiling reports and forms to submit to the Department; 2) districts will be able to spend more time on student achievement when they have freed time from data entry and reporting; and 3) districts will be able to use the Unity Project data system to monitor their district's improvement.

Second, the State will offer incentives to district staff and teachers to participate as a member of the District Portal Review Committee. These Portal Review Committee members will in turn

become advocates of the Unity Project's data system, furthering encouraging districts to participate in the statewide data system.

Finally, the State will provide significant training to district staff, administration, and teachers. All of this training will be provided without cost to the district and will significantly encourage districts to participate in the data system.

Districts will use the resulting longitudinal data and analyses for research, decision-making, and improvement of student achievement in the following ways. Teachers will use the data and analyses capabilities of the resulting Unity Project to differentiate their instruction for students who need to work on a specific Alaska Performance Standard.

Schools will use the data and analyses capabilities to create school improvement plans. For example, using Unity, a school might find that their Alaska Native males are not reading proficiently in 8th grade. To address this problem they might provide reading materials that are more interesting to Alaska Native males or they might implement an after school reading program. After the school establishes their program they will be able to use the Unity Project data system to see if their program made a difference in the scores of males who participated. They will also be able to compare the scores of their males to others in the district and across the State.

At the district level, administrators will be able to better assess their professional development. For example, a district might want to evaluate the effectiveness of a professional development initiative focusing on increasing math scores. The district would be able to quickly and easily examine the assessment scores and grades of the students of participating teachers and compare them to the scores and grades of students in the classrooms of teachers who were not participating in the initiative. This comparison would allow the district to assess whether the instruction strategies they promoted through the professional development opportunity led to higher student achievement.

CITATIONS

Meyers, Ellen, and Frances O'Donnel Rust. 2000. The test doesn't tell all: How teachers know that their students are learning. Education Week (June 30, 2000): 34, 37.

Protheroe, Nancy. 2001. Improving teaching and learning with data-based decision: Asking the right questions and acting on the answers. Educational Research Service Spectrum. (Summer, 2001). http://www.ers.org/spectrum/sum01a.htm.

Unity Project: Data Mining for Student Success

Resumes for Key Personnel

Karen J. Rehfeld

(b)(6)

Education

University of Idaho; Bachelor of Arts Degree, Political Science;
May 1976.

Relevant Work Experience

Department of Education & Early Development, Deputy Commissioner: June 2003 to present

Management of the Division of Education Support Services including the public school funding programs, school construction and major maintenance project evaluation, ranking and funding process, finance and accounting services, supply and procurement, data processing, payroll and human resources support. Preparation of the operating and capital budget request for the Department of Education & Early Development. Facilitation of program and service delivery by providing administrative support to all divisions. Department's designated ethics supervisor.

Department of Education & Early Development, Director of Administrative (Education Support) Services: September 1993 to June 2003

Management of the Division of Education Support Services including the public school funding programs, school construction and major maintenance project evaluation, ranking and funding process, finance and accounting services, supply and procurement, data processing, payroll and human resources support. Preparation of the operating and capital budget request for the Department of Education & Early Development. Facilitation of program and service delivery by providing administrative support to all divisions. Department's designated ethics supervisor.

Legislative Finance Division, Fiscal Analyst: 1987 to August 1993

Provided professional level support to House and Senate Finance Committees in developing annual appropriations legislation including analysis of the governor's operating and capital budget, analysis of state programs to determine impact of legislative appropriations on services to the public, and working directly with legislators to make recommendations on the level of funding for state programs.

Elgee & Rehfeld, Certified Public Accountants, Firm Administrator

Prepared monthly financial statements, budget and cash flow projections, and payroll reports. Developed marketing strategy, office management and procedures. Supervised the daily activities of the firm.

Private Consultant

Provided professional services to several state agencies including the Office of the Governor, Lieutenant Governor, the Departments of Education, Law and Commerce and Economic Development, and the 1983 State Reapportionment Board. Board members were Chairman Willie Hensley, Mary Nordale, Felix Toner, Joe McKinnon and Dick Borer.

Office of the Governor, Special Assistant

Worked with the Division of Elections to implement the 1981 Reapportionment Plan.

Office of the Governor, Executive Director, Reapportionment Board.

CHRIS E. LETTERMAN

EDUCATION

University of Alaska	Humanities	1994
University of Louisville	Information Science & Data Processing	1992

EXPERIENCE

Department of Education & Early Development, State of Alaska

Information Technology Services Manager *1998 - Present*

Responsible for managing the Alaska Department of Education and Early Development's Information Technology section. The Information Technology section is comprised of multiple local area networks and computing resources located throughout the state with over 400 hosts, 35 servers and 23 staff. Other duties include developing and implementation of department wide standards, policies and guidelines for information technology to raise overall ROI and lower TCO while reducing administrative overhead and delivering world class customer service.

Juneau Empire, Morris Communications

MIS Director *1998*

Managed and performed support services on proprietary network and electronic pagination systems at *The Juneau Empire* a medium-small sized newspaper. Acted as primary technical resource to the editor and other management; with specific regards to advertising day to day operations, needs and support services. Headed Y2K discovery and remediation project.

CellularOne, Mercury Communications

Technical Lead *1995-1997*

Managed the deployment and administration of a Northern Telecom 800CM Cellular Telephone System consisting of 15 cell sites and 3 switch centers networked through Southeast Alaska. Responsible for overseeing troubleshooting and repair of system or service degrading condition which included troubleshoot-ing of T-1 circuits, VF circuits, channel banks, voicemail units, Northern Telecom Meridian PBX, circuit service units, transcoding equipment, electronic crossconnect networks (DACS), switch routing problems and digit translations table maintenance.

U.S. Navy

Electronics Technician, Petty Officer Third Class *1992-1995*

Primary responsibilities included troubleshooting, fault isolation, repair & routine maintenance of HF, MF and LF transmitters and various antenna systems at Naval retransmit facilities. Other duties included troubleshooting, fault isolation; repair and routine maintenance for ancillary equipment such as fiber optic interconnect systems, microwave transceiver systems, various families of multiplexing gear, satellite communication systems, and Vinson Family

cryptographic encoders and decoders. Served as the Automated Data Processing Security Officer at Naval Security Group Activity Adak, Alaska (1994 to 1995).

PROFESSIONAL ORGANIZATIONS

Information Systems Audit and Control Association
Glacier Valley Rotary Club
Board of Directors, Gold Creek Child Care Development Center
University of Alaska Alumni Association
University of Louisville Alumni Association
Triangle Fraternity Alumni Association

PROFESSIONAL APPOINTMENTS AND CERTIFICATIONS

State of Alaska Security Incident Response Team, Member (2005)
State of Alaska Security Functional Workgroup, Chairman (2003-2005)
Lt. Governor's Committee on Security and Privacy Policy, Technical Member (2001-2002)
Telecommunications Advisory Council, Technical Review Committee (1999-2002)
State of Alaska Level II Procurement Officer (2001)
Microsoft Certified System Engineer, (1999)
Microsoft Certified Trainer, (1999)
Cisco Systems Certified Network Associate (2001)

PROFESSIONAL DEVELOPMENT AND TRAINING

Red Hat Enterprise Linux Certified Engineer Course, (2004)
SANS Institute Auditing Networks, Perimeters & Systems, (2002)
Managing Cisco Network Security Devices, (1999)
Interconnecting Cisco Network Devices, (2001)
Project Management [PERT & Critical Path], (1998)
NORTEL Wireless Systems Training, (1995)
US Navy COMSEC (Communications Security)
US Navy TQM/TQL(Total Quality Management/Total Quality Leadership)
US Navy Petty Officer Indoctrination
US Navy Advanced Soldering
US Navy Air and Surface Search Radar Systems
US Navy Communications Systems
US Navy Advanced Electronics & Micrologic
US Navy Basic Electricity & Electronics

Katherine Long
(b)(6)

SUMMARY QUALIFICATIONS

- 15 years of experience with managing student level data
- Expertise in designing and developing functional information systems
- Extensive knowledge of database theory and design

PROFESSIONAL EXPERIENCE

- Project manager of developing and implementing Migrant Education database
- Member of two project teams since 1993 to develop a statewide student management system within Alaska
- Database Administrator of Alaska Department of Education & Early Development for 6 years
- Member of a task force to develop a electronic transfer of migrant student transcripts using SPEEDE/EXPRESS
- Worked with school district personnel for over 15 years to ensure accurate reporting of educational data

PROFESSIONAL EMPLOYMENT

Alaska Department of Education & Early Development 1998 – Present
Database Administrator/Analyst Programmer

Planned and created databases that house important data for the department and the districts/schools it serves. Planning included meeting with those requesting the data collection and determining their needs and how to best develop a solution through the review of current and future data collection processes. Plus, reviewed both state and federal reporting requirements. Designed, developed, tested, modified and implemented user applications using web/database or client-server/database interfaces. These applications are complex with secure interfaces that allow users to view, update, insert, delete data, and create reports in a user-friendly manner. Write and maintain help/documentation files for the created applications, and train users. Troubleshoot problems as they occur. Responsible for the security and integrity of all data transmitted to and accessed through such programs. Security is maintained through user accounts, the establishment and monitoring of secure connections via encryption, the establishment and distribution of digital signatures, and by following and upgrading software and operating system notices as security issues arise. I was a member of the Online Alaska Student School Information System (OASIS) a multi-faceted project that was to develop and implement at statewide student and educational data management system. The current OASIS system collects 18 student data elements. Attended all EDEN trainings and submit EDEN files.

South East Regional Resource Center (SERRC) 1990 – 1998
Data Management Specialist

Conducted initial screening of all incoming Certificate of Eligibility documents and MSRTS Educational Records for compile and accurate information reported by school district. Determined eligibility for the Migrant Education Program based on prescribed policy both at the state and national level. Reviewed all correspondence related to problem records. Responded to inquiries by districts as to status of records and procedures for completing records. Conducted record clerk training sessions and teleconferences. Entered educational data into Migrant Information System, produced ad-hoc reports from the statewide Migrant Education Database for the State Director, school districts and Migrant Education staff. Project manager for the statewide task force who planned and developed a new statewide database for Migrant Education. The idea of the Migrant Database Project was Migrant Education would be the "testing grounds" for the first stage of electronic data interchange of student information between the districts and The Department of Education. Developed the data dictionary for the new migrant database. Converted the data from the old Migrant Education Database and loaded into the new Migrant Database.

EDUCATION

University of Alaska Southeast
B.A. Management of Computer Information Systems

PROFESSIONAL EDUCATION

Oracle 8i Architecture and Administration
Oracle 91 Database Administration Fundamental
Oracle Fundamentals
System Administration for Microsoft SQL Server 7.0
Implementing a Database on Microsoft SQL Server 7.0

Erik A. McCormick

(b)(6)

PROFESSIONAL OBJECTIVE

To obtain a position that will both utilize and challenge my educational and professional background.
I have extensive experience in project management, the development and maintenance of information systems, high-stakes student assessment and data management. I possess excellent interpersonal skills, strong technical skills, a professional attitude and the ability to relate well with clientele, staff, and management.

EDUCATION

The University of Arizona, Tucson, Arizona
1994 Bachelor of Arts; Major: Economics, Minor: German

Lassen College, Susanville, California
1991 Associate of Arts; Major: Liberal Arts

RELEVANT PROFESSIONAL EXPERIENCE

STATE OF ALASKA – DEPT. OF EDUCATION & EARLY DEVELOPMENT
(5/02-present)
Research Analyst IV
Responsible for managing the Office of Data Management section within the Assessment and Accountability Unit. Supervisor of four analysts. Responsible for planning and oversight of all data-related activities including, but not limited to: unit work plan, maintenance, security and reporting of aggregate and disaggregate assessment results; federal programs data; Common Core Data (CCD), including Classified Staff Accounting, Certified Staff Accounting, and Paraprofessional Staff Accounting, High School Graduates, Dropouts; Education Directory information and Rolodex database. Responsible for the implementation of NCLB reporting provisions. Serves as the State Report Card Coordinator, State PBDMI/EDEN Coordinator, OASIS Project Manager, Alaska CCD Non-Fiscal Coordinator, Alaska Student Identification System (ASIS) Coordinator, State At-Risk Coordinator, and as the Chair of the statewide Data Management Committee. Responsible for oversight of all information requests for the unit as well as maintenance of the unit's information that is published on the Department's Internet site. Responsible for determining District and School AYP Levels and District or School Improvement designations.

STATE OF ALASKA – DEPT. OF EDUCATION
(06/99 To 05/02)
Research Analyst III
Served as the lead Assessment Analyst at the Department during the transition to a "high-stakes" assessment and accountability system. Responsible for production of all statewide, district-level, school-level, and student-level for distribution. Designed and created all assessment databases

for the Statewide Assessment System. Coordinated with testing vendor to obtain raw assessment data files. Monitored and trained district personnel to ensure the protection of individual student confidentiality under FERPA. Designed and distributed a student reporting template for all of the initial Spring 2000 individual exam results reports throughout the state. Served as the Federal Programs Data Manager. Responsible for maintaining and submitting all four Special Education data collections as required by OSEP, Part B under the authorization of IDEA. Conduct annual training sessions for Special Education Directors at their conference. Responsible for collecting, maintaining, and reporting all secondary student data required under the Carl Perkins legislation for vocational education programs. Served as a lia ison between the University of Alaska, Alaska Dept. of Labor and Workforce Development to share data and develop longitudinal data studies. Served as OASIS Project Manager and as the State Report Card Coordinator

STATE OF ALASKA – DEPT. OF EDUCATION
(02/98 To 06/99)
Research Analyst II
Responsible for the statistical analyses of student achievement data resulting from the multiple assessment that were included in the Alaska Student Assessment System. Analyses and reporting of norm-referenced data (California Achievement Test, version 5). Developed a data system for the Alaska Writing Assessment. Served as a regular member of the OASIS project development team, including designated activities related to the multi-year plan to design, pilot and implement OASIS SQL databases and electronic data transfer systems. Assisted in development of the reporting cycles and annual work plan for the Office of Standards, Assessment and School Information.

STATE OF ALASKA – DEPT. OF EDUCATION
(10/97 To 02/98)
School Finance Specialist
I worked as an acting School Finance Specialist for four months after an employee in that position left the Department. School Finance was in need of immediate help for analyzing student data so I was asked to fill the role until the new person was hired. After that I returned to the Assessment section to work as a Research Analyst II. Duties included analyzing public school district funding data, assuring that state regulations and requirements were being fulfilled, determining district allocations, and making recommendations for approving and distributing funds. Prepared budget documents to detail formula calculations, audited school financial records to analyze funding requirements and assure compliance with program requirements. Wrote, negotiated and administered specialized contracts and reimbursable service agreements for school transportation programs, such as bus inspection, drivers' training, drug and alcohol testing and pupil transportation.

STATE OF ALASKA – DEPT. OF EDUCATION
(03/95 To 09/97)
Statistical Technician II
Collected, compiled, and reported education statistics related to federal programs: Chapter 1/Disadvantaged, Migrant, Special Education, and Vocational Education. Designed reporting forms and identified student-level data needs. Provided technical assistance to school district personnel. Provided general statistical support to the entire Department.

PROFESSIONAL SKILLS/CERTIFICATIONS

- Management/Supervision
- Applied Research
- Program/Project Management
- Staff Development/Training
- Grant and Technical Writing
- Publications Development
- Standard Setting Process
- FERPA
- Psychometrics
- Proficient in MS Office Suite
- Proficient in MS SQL Server 6.5 & 7.0
- Proficient in SPSS 11.5

REFERENCES

Professional References Available Upon Request

CATHRYN CARSON ANDEREGG

(b)(6)

EDUCATION

Pepperdine University, Malibu, CA, Ed.D., Educational Technology Leadership — completion 2005/2006

University of Alaska Southeast, Juneau, AK, M.Ed., Educational Leadership—1999-2000

University of Alaska Southeast, Juneau, AK, M.Ed., Educational Technology—1994

Saint Mary's College, School of Graduate Education, Moraga, CA Professional Clear Credential—1987

University of California at Berkeley, B.A. French Language and Civilization—1977

Credentials:

California Multiple Subjects Credential-Professional Clear

Alaska Teaching Certificate Type A – Elementary Education Endorsement, Technology Endorsement

Alaska Teaching Certificate Type B – Administrative

TEACHING EXPERIENCE

Instructor, University of Alaska Southeast–*Internet Concepts and Applications* [on campus] *Spreadsheet Concepts and Applications I & II* [on campus and distance delivery]. 1999-2000

Technology Assistant, Juneau School District, Riverbend Elementary School
Collaborate with teachers to integrate curriculum and technology in Kindergarten through Fifth grades. Provide direct instruction to students in multimedia applications, Web page construction and keyboarding. Design and introduce multimedia templates and curriculum worksheets. Produce/direct/edit *The Beaver Bulletin*, a weekly video news broadcast with third, fourth, and fifth grade students. Provide technology support to staff. Maintain network operations. Design and maintain school Web site. Formulate K-5 student competencies in technology and curriculum modules for instruction. 1998-2000

Instructor, University of Alaska Southeast–*Graphic Design and Desktop Publishing [on campus], The Internet and the World of Online Communication, Online Communication and Distance Education* and *Desktop Publishing On Your Own [distance delivery]*. 1995-97

Teacher, Alaska Vocational Institute, South East Regional Resource Center–*Technology Skills Training*. 1994-95

Teacher, Copper River School District, Gakona School–*Second, Third, Fourth, Fifth and Sixth grades*. 1991-1993

Teacher, Western Placer Unified School District, Valley View School–*Kindergarten, First, and Second grades*. 1989-1991

Teacher, Alameda Unified School District–*Summer School Computer Program*. 1989

ADMINISTRATIVE EXPERIENCE

Assessment Administrator—State of Alaska, Department of Education & Early Development, Juneau, AK. 2003-Present
Facilitate, oversee, and cause to be developed appropriate assessment models for large-scale assessment of student achievement as required by NCLB.

State Improvement Grant Director—State of Alaska, Department of Education & Early Development, Juneau, AK 2001-2003.
Coordinated the development and implementation of Special Education paraprofessional e-learning modules, SET for Life statewide secondary transition program

ADMINISTRATIVE EXPERIENCE (CONT.)

Senior Courseware Developer —KnowledgeNet.com, Scottsdale, AZ. 2000-2001
Supervise 8 team members in curriculum development, design, and production of Web-based training courses.

Instructional Multimedia Designer–Northwest Regional Educational Laboratory, Northwest Educational Technology Consortium, Portland, OR. 1997-1998

Grant Reader–Technology Literacy Challenge Fund, Juneau, AK. 1997 & 1998

Technology Coordinator–South East Regional Resource Center, Juneau, AK. 1993-1997.
Director—Educational Technology Support Center, network systems administrator, staff technology support, graphic designer, desktop publisher for varied programs
NTIA/TIIAP Federal Grant Program Manager/Training Coordinator—Southeast Alaska Network [SEAKnet]
Electronic Certificate of Eligibility [COE] Program Coordinator/Technology Training specialist—Migrant Education 1995-97

Network Planner/Installer–Haines, Skagway, & Yakutat, AK. 1996

Co-author, NTIA/TIIAP Federal Grant—Southeast Alaska Network [SEAKnet]. 1995

Coordinator–Chapter II technology writing project, Gakona School. 1991-1992

Author–Chapter II technology writing project, Copper River School District. 1991

Consultant–AB1470 State Technology Grant Evaluation Training Workshop. 1991

Project Coordinator–AB 1470 Technology Grant, Valley View School. 1990-1991

Author–AB1470 State Technology Grant, Valley View School. 1990

Reviewer–Program Quality Review, Eureka School, Roseville. 1991

Leadership Trainer–California Technology Project Leadership Academy. 1990-1991

Co-author/Consultant–Broderbund Software Company, integrating lesson plans for the Print Shop Companion, Apple IIGS version. 1990

PRESENTATIONS

Alaska Association of Secondary School Principals—*Grade Level Expectations*. 2003

Office of Special Education Programs Personnel Preparation/CSPD/SIG National Conference –*E-learning Modules for Paraprofessional Training*. 2003

Alaska Special Education Director's Conference-- *E-learning Modules for Paraprofessional Training*. 2002

Alaska Workforce Investment Act Conference— *SET for Life, a Secondary Transition Program for Alaskan Students*. 2002

ComTech '99–*Looking Good on the World Wide Web*. 1999

Alaska Society for Technology in Education–*Search and Design: Conquering the Web*. 1998

Northwest Council for Computer Education–*Introduction to Web Page Design*. 1998

Oregon Association of Compensatory Educators–*Classrooms in Transformation*. 1998

Technology Applications in Science and Mathematics Education–*Introduction to Web Page Design*. 1997

Internet Workshops–Haines, Gustavus, Hoonah, Kake, Wrangell, & Petersburg, AK. 1996

Technology Planning Workshops–Hydaburg & Yakutat, AK. 1996

Multimedia Workshops–Hydaburg, Yakutat & Pelican, AK. 1995-1996

PRESENTATIONS (CONT.)

Governor's Student Health Conference–*What is the Internet?*. 1996

National Migrant Education/NCS Conference–*The Electronic COE in Alaska*. 1996

Alaska Society for Technology in Education Conference Workshop–*Get a Grip on Graphics*. 1995

Alaska Staff Development Leadership Academy–*Elements of Multimedia*. 1994

Paul R. Prussing

(b)(6)

Philosophy Statement: Find balance, happiness and passion in all that you do.

Education: Oregon State University—B.S. Education—1988

Employment History:

Deputy Director 2003--present
Alaska Department of Education & Early Development
Supervise approximately 20 staff; oversees fiscal management of the division's budget; represents the department on statewide committees and at statewide and national meetings; coordinates personnel development activities for division staff.

Education Specialist II
Alaska Department of Education & Early Development 2002-2003
Reading Excellence Act Program Manager
Implementation of a comprehensive K-3 reading program in 25 schools located in eight districts across the state of Alaska; Oversight of an 8.7 million dollar budget.

Education Specialist I
Alaska Department of Education & Early Development 2000-2002
GEAR UP ALASKA Program Manager; Oversight of 6.5 million dollar budget. Title I/Migrant program coordinator for 18 districts within the state of Alaska. Title I /Neglected and Delinquent program manager; Oversight of a 1.2 million dollar budget. State of Alaska, Youth in Detention Program Manager; Oversight of a 1.2 million dollar budget.

Science/Math Teacher 1999-2000
Dzantik 'I Heeni Middle School
Teacher of sixth, seventh, and eighth grade science and seventh grade math. Member of six person collaborative team.

Physical Science Teacher 1998-1999
Juneau-Douglas High School
Instructor for two freshman physical science classes.

Youth Counselor 1996-1999
State of Alaska, Johnson Youth Center
Provide care, custody, supervision and treatment for residents of Alaska juvenile detention and school facilities. Monitor and evaluate individual resident progress within the program.

Substitute Teacher K-12 1983-1997
Juneau, Alaska; Schweinfurt, Germany and Portland, Oregon

Follow daily lesson plans and supervise students, maintaining a positive and productive learning environment.

Education Counselor 1991-1992
Department of Defense; Schweinfurt, Germany
Counseled military personnel and their family members regarding all educational opportunities available on a U.S. military post. Evaluated & analyzed educational status of military personnel and provided regular reporting to commanding officers. Responsible for projecting college enrollment figures in order to receive appropriate federal funding and then managed budget. Know all federal regulations concerning U.S. Army College funds.

Commercial Fisher 1986-1996
Gulf of Alaska
Longline commercial fished for black cod and halibut in the Gulf of Alaska. Trained & supervised new crewmembers in the basics of longline fishing while learning the value of teamwork and time management.

Professional Development: University of Maryland Training Certificates: Interviewing and Counseling Techniques for Managers, Effective Briefing Techniques, Effective Letter Writing, and Customer Service Excellence; American Red Cross CPR/First Aid Instructor, 100 Ton U.S. Coast Guard Vessel License, MANDT certified, PLATO Computer training, Behavior Management/Suicide Prevention Training, Blood Borne Pathogens Training.

References:

Ken D. Koelsch
U.S. Customs Port Director
Home: 586-3367
Work: 586-7211

Ron J. Flint
Nugget Alaskan Outfitter—Owner
Home: 789-0839
Work: 789-0956

Greg Roth
Superintendent, Johnson Youth Center, Retired
Home: 780-8658
Work: 586-9433

Kevin White
Commercial Fisher
Home: 790-2488

Unity Project: Data Mining for Student Success

ED 524 -- Section C

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Sucess
ED 524 -- Section C

	Year 1 Phase 2 -- Phase 3	Year 2 Phase 3	Year 3 Phase 3 -- Phase 4	Total Project Costs
1. Personnel				
A. Unity Coordinator	61,932	48,307	33,493	143,732
B. Education Associate Range	38,280	29,858	20,702	88,840
C. Analyst Programmer x 3 positions	131,664	102,698	71,204	305,565
Total Personnel	231,876	180,863	125,399	538,138
2. Fringe Benefits				
Fringe @ (25.01%) + ($850/month x 12 months health insurance)	68,192	55,434	41,562	165,188
Total Fringe Benefits	68,192	55,434	41,562	165,188
3. Travel				
A. Staff Travel for Training				
Oracle Training: Administration Workshop 1-- Five-day training ($900 roundtrip airfare + ($250/day x 5 days) x 6 staff members	12,900			12,900
Oracle Training: Administration Workshop 2 -- Five-day training ($900 roundtrip airfare + ($250/day x 5 days) x 3 staff members	6,450			6,450
Oracle Training: Warehouse Administration -- Three-day training ($900 roundtrip airfare + ($250/day x 3 days) x 2 staff members	3,300			3,300
Oracle Training: Application Server Administration 1 -- Five-day training ($900 roundtrip airfare + ($250/day x 5 days) x 3 staff members	6,450			6,450
Oracle Training: Application Server Administration 2 -- Five-day training ($900 roundtrip airfare + ($250/day x 5 days) x 3 staff members	6,450			6,450

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Sucess
ED 524 -- Section C

	Year 1 Phase 2 -- Phase 3	Year 2 Phase 3	Year 3 Phase 3 -- Phase 4	Total Project Costs
Oracle Training: Building Corporate Portals -- Three-day training ($900 roundtrip airfare + ($250/day x 3 days) x 9 staff members	14,850			14,850
Oracle Training: Building Portals with Java -- Two-day training ($900 roundtrip airfare + ($250/day x 2 days) x 6 staff members	8,400			8,400
Oracle Training: Create Queries and Reports -- Two-day training ($900 roundtrip airfare + ($250/day x 2 days) x 9 staff members		12,600		12,600
Oracle Training: Develop End User Layers -- Three-day training ($900 roundtrip airfare + ($250/day x 3 days) x 8 staff members		13,200		13,200
B. Staff Travel for Stakeholder Meetings				
Regional Meetings ($400 roundtrip airfare + ($250/day x 2 days x 4 trips x 2 staff members -- one trip in year one and 3 trips in year 2	1,400	3,400		4,800
C. Staff Travel for Stakeholder Group Meetings				
Stakeholder Group Meetings ($400 roundtrip airfare + ($250 day x 2 days) x 6 trips x 1 staff member		3,400		3,400
D. Member Travel for Portal Review Committees				
Portal Review Committee meeting ($400 roundtrip airfare + ($250/day x 2 days) x 1 trips x 3 members x 6 committees		9,400	9,400	18,800
E. Staff Travel for SIF Integration				
Staff Travel to 10 districts ($400 roundtrip airfare + ($250/day x 4 days) x 10 trips x 1 staff member			5,400	5,400
F. Participant Travel for Unity Project Training				
Two people from each district ($400 roundtrip airfare + ($250/day x 4 days) x 54 districts x 2 staff people			151,200	151,200
Total Travel	60,200	42,000	166,000	268,200

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Sucess
ED 524 -- Section C

	Year 1 Phase 2 -- Phase 3	Year 2 Phase 3	Year 3 Phase 3 -- Phase 4	Total Project Costs
4. Equipment				
A. Portal Development Equipment				
Upgrade network switch ($22,000) + replace firewalls ($15,000)		34,100		34,100
B. SIF Integration				
Servers for 54 school districts			156,000	156,000
Total Equipment	0	34,100	156,000	190,100
5. Supplies				
A. Office Supplies	5,000	5,000	5,000	15,000
B. Computers				
($500/desktop computer x 5 computers) + ($1,000/laptop x 1 computer)	3,500			3,500
C. Promotional Materials	2,000	5,000	5,000	12,000
D. Documentation of Unity Project development and implementation	10,000	10,000	10,000	30,000
Total Supplies	20,500	20,000	20,000	60,500
6. Contractual				
A. Develop Data Structure				
Contractual/RFP	384,500			384,500
Contractor Travel	6,000			6,000
Contingencies	10,000			10,000
B. Portal Construction				
Contractual/RFP		430,000		430,000
Contractor Travel		10,000		10,000
Contingencies		10,000		10,000
C. Portal Review Committee				
Committee Membership Contract ($500/stipend x 3 members x 6 committees)	9,000	9,000	9,000	27,000
D. SIF Integration				
Contractual/RFP			292,500	292,500

	Year 1 Phase 2 -- Phase 3	Year 2 Phase 3	Year 3 Phase 3 -- Phase 4	Total Project Costs
Software			550,000	550,000
Travel			75,000	75,000
Contingencies			10,000	10,000
E. Promotional Materials Graphic Design	5,000	5,000	5,000	15,000
Total Contractual	414,500	464,000	941,500	1,820,000
7. Construction				
8. Other				
A. Staff Training				
Oracle Training: Administration Workshop 1 x 6 staff members	9,000			9,000
Oracle Training: Administration Workshop 2 x 3 staff members	4,500			4,500
Oracle Training: Warehouse Administration x 2 staff members	1,800			1,800
Oracle Training: Application Server Administration 1x 3 staff members	4,500			4,500
Oracle Training: Application Server Administration 2 x3 staff members	4,500			4,500
Oracle Training: Building Corporate Portals x 9 staff members	8,100			8,100
Oracle Training: Building Portals with Java x 6 staff members	3,600			3,600
Oracle Training: Create Queries and Reports x 9 staff members		5,400		5,400
Oracle Training: Develop End User Layers x 8 staff members		7,200		7,200
B. Stakeholder Meetings				
Regional Meetings -- Anchorage, Juneau, Fairbanks, Kotzebue, and Bethel	5,000	20,000		25,000
Stakeholder Group Meetings -- six events	5,000	10,000		15,000
C. Portal Review Committee Meetings				
Teleconference Costs	5,000	5,000	5,000	15,000

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Sucess
ED 524 -- Section C

	Year 1 Phase 2 -- Phase 3	Year 2 Phase 3	Year 3 Phase 3 -- Phase 4	Total Project Costs
D. User Training				
Event Costs to hold the training for 110 people			5,000	5,000
Total Other	51,000	47,600	10,000	108,600
9. Total Direct Costs	846,268	843,997	1,460,461	3,150,726
10. Indirect Costs				
State of Alaska Department of Education and Early Development Indirect Rate @ 11.3%	95,628	95,371	165,032	356,031
11. Training Stipends				
12. Total Costs	941,896	939,368	1,625,493	3,506,757

Unity Project: Data Mining for Student Success

Budget Justification

State of Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Success

Budget Justification

1. Personnel

A. Unity Coordinator (Range 22): The Unity Coordinator is a full-time position. He or she will be responsible for overseeing the Unity Project implementation. The total project request for this position is $143,732. The request for this position in year one is $61,932. The year two salary for this position is $64,409, reflecting a 4% salary increase. Of this amount, the State of Alaska is requesting $48,307 from this funding source and will provide $16,102 from other funds. The year three salary for this position is $66,986, reflecting a 4% salary increase. Of this amount the State of Alaska is requesting $33,493 from this funding source and will provide $33,493 from other funds.

B. Education Associate (Range 15): The Education Associate is a full-time position. He or she will be responsible for providing administrative assistance to the Unity Project. The total project cost for this position is $88,840. The request for this position in year one is $38,280. The year two salary for this position is $39,811, reflecting a 4% salary increase. Of this amount the State of Alaska is requesting $29,858 from this funding source and will provide $9,953 from other funds. The year three salary for this position is $41,404, reflecting a 4% salary increase. Of this amount the State of Alaska is requesting $20,702 from this funding source and will provide $20,702 from other funds.

C. Analyst Programmer II: Three full-time Analyst Programmers will work with the contractors on a day-to-day basis to create the Unity Project's data structure, portals, and SIF integration. The total project cost for these positions is $305,565. The annual salary for these positions in year one is $43,888. The total request is $131,664 ($43,888 x 3 positions). In year two the salary for these positions will be $45,644, which reflects a 4% salary increase. The total cost of these positions in year two is $136,932. Of this amount the state is requesting $102,698 and will provide $34,234 from other funds. In year three the salary for these positions will be $47,469, reflecting a 4% salary increase. The total cost of these positions in year three is $142,407. Of this amount, the state is requesting $71,204 and will provide $71,203 from other funds.

2. Fringe Benefits

A. The state of Alaska's fringe benefit rate for employees who are part of the Public Retirement System includes 17.65% in retirement, 6.13% in SBS, and 1.23% in Medicare. In addition, the fringe benefit rate includes $831.50 per month for health insurance. The total project cost for benefits is $165,188. The total request for fringe benefits in year one is $68,192 (($231,876/personnel costs x 25.01%) + ($850/month x 12 months)). The total request for fringe benefits in year two is $55,434

(($180,863/personnel costs x 25.01) + ($850/month x 12 months)). The total request for fringe benefits in year three is $41,562 (($125,399/personnel costs x 25.01) + ($850/month x 12 months).

3. Travel

A. Staff Travel for Training: Alaska staff will attend the following training to increase the State's knowledge and skill using Oracle's Database Administrator, Application Server Administrator, Portal Developer and Discoverer tools. The total project cost for staff travel for training is $84,600. The total request for travel related to this training in year one is $58,800 and includes the following trips:

1. Oracle Training: Administration Workshop 1 (five-day training): $12,900 ($900 roundtrip airfare + ($250/day x 5 days) x 6 staff members).
2. Oracle Training: Administration Workshop 2 (five-day training): $6,450 ($900 roundtrip airfare + ($250/day x 5 days) x 3 staff members).
3. Oracle Training: Warehouse Administration (three-day training): $3,300 ($900 roundtrip airfare + ($250/day x 3 days) x 2 staff members).
4. Oracle Training: Application Server Administration 1 (five-day training): $6,450 ($900 roundtrip airfare + ($250/day x 5 days) x 3 staff members).
5. Oracle Training: Application Server Administration 2 (five-day training): $6,450 ($900 roundtrip airfare + ($250/day x 5 days) x 3 staff members).
6. Oracle Training: Building Corporate Portals (three-day training): $14,850 ($900 roundtrip airfare + ($250/day x 3 days) x 9 staff members).
7. Oracle Training: Building Portals with Java (two-day training): $8,400 ($900 roundtrip airfare + ($250/day x 2 days) x 6 staff members).

The total request for travel related to this training in year two is $25,800 and includes the following trips:

1. Oracle Training: Create Queries and Reports (two-day training): $12,600 ($900 roundtrip airfare + ($250/day x 2 days) x 9 staff members).
2. Oracle Training: Develop End User Layers (three-day training): $13,200 ($900 roundtrip airfare + ($250/day x 3 days) x 8 staff members.

B. Staff Travel for Stakeholder Meetings: The State will hold five regional stakeholder meetings. Four of these meeting will require travel for two State staff members. The State will hold one meeting in year one. The total project cost for this travel is $4,800. The request for these trips in year one is $1,400 (($400 roundtrip airfare) + ($250/day x 2 days) x 1 trip x 2 staff members). The State will hold three meetings in year two. The request in year two is $3,400 (($400 roundtrip airfare) + ($250/day x 2 days) x 3 trips x 2 staff members).

C. Staff Travel for Stakeholder Group Meetings: The State will also present the Unity Project at meeting representing the various project stakeholders. One State staff member

will attend six of these meetings. The total project cost for this travel is $3,400. The request in year two of the project is $3,400 (($400 roundtrip airfare) + ($250/day x 2 days) x 6 trips x 1 staff member).

D. Member Travel for Portal Review Committees: The State will meet in person with each Portal Review Committee one time. The total project cost for this travel is $18,800. The cost for the travel associated with these meetings in year two is $9,400 ($400 roundtrip airfare + ($250/day x 2 days) x 1 trips x 3 members x 6 committees) and in year three is $9,400 ($400 roundtrip airfare + ($250/day x 2 days) x 1 trips x 3 members x 6 committees).

E. Staff Travel for SIF Integration: State staff will travel to 10 districts to work with the SIF agent contractor. The total cost of this travel in year three of this project is $5,400 ($400 roundtrip airfare + ($250/day x 4 days) x 10 trips x 1 staff member).

F. Participant Travel for Unity Project Training: The State will pay for two people from each district to attend an Unity Project training when the data system is complete. The total cost of this travel in year three of this project is $151,200 (($400 roundtrip airfare + ($250/day x 4 days) x 54 districts x 2 staff people).

4. Equipment

A. Portal Development Equipment: The State will upgrade its network switch and replace its firewalls to address the increased activity the State website will receive as a result of the Unity Project. The total request in year two of this project is $34,100: upgrade network switch ($22,000) and replace firewalls ($15,000).

B. SIF Integration Servers: The State will purchase servers to host the SIF agent. The total request for these servers in year three is $156,000.

5. Supplies

A. Office Supplies: The State will purchase office supplies, such as paper, pencils, desks, chairs, and printer ink. The total project cost for office supplies is $15,000. The request in year one is $5,000, in year two is $5,000, and in year three is $5,000.

B. Computers: The State will purchase a desktop computer for each of the new staff hired under this project. In addition the department will purchase a laptop computer for the policy coordinator. The total request for these items in year one is $3,500 ($500/desk top computer x 5 computers) + ($1,000/laptop computer x 1 computer).

C. Promotional Materials: The State will purchase materials, such as cups, pens, posters, and magnets to promote the Unity project. The total project cost for these items is $12,000. The request for these items in year one is $2,000, in year two is $5,000, and in year 3 is $5,000.

D. Documentation of the Unity Project Development and Implementation: The State will publish reports of the Unity Project's Development and Implementation annually. The total project cost for documentation is $30,000. The request in year one is $10,000, in year two is $10,000, and in year three is $10,000.

6. Contractual

A. Development of the Data Structure: The State will contract with a private vendor to develop the Unity Project's data structure. The State estimates that this contract will cost $400,500 during year one of the project. Following is a breakdown of the costs associated with this contract:

Title	Rate	How many?	Est. hours	Total	
Project Manager	$ 150.00	1	160	$ 24,000.00	
Business Analyst	$ 110.00	3	600	$ 198,000.00	
Technical Lead	$ 125.00	2	200	$ 50,000.00	
Programmer	$ 125.00	3	300	$ 112,500.00	
				$ 384,500.00	Contractual/RFP
				$ 6,000.00	Contractor Travel
				$ 10,000.00	Contingencies
				$ 400,500.00	EST. TOTAL

B. Portal Construction: The State will contract with a private vendor to develop the Unity Project's portals. The State estimates that this contract will cost $450,000 during year two of the project. Following is a breakdown of the costs associated with this contract:

Title	Rate	How many?	Est. hours	Total	
Project Manager	$ 150.00	1	180	$ 27,000.00	
Business Analyst	$ 110.00	2	400	$ 88,000.00	
Technical Lead	$ 125.00	2	300	$ 75,000.00	
Programmer	$ 125.00	3	600	$ 225,000.00	
Facilitator	$ 100.00	1	150	$ 15,000.00	
				$ 430,000.00	Contractual/RFP
				$ 10,000.00	Contractor Travel
				$ 10,000.00	Contingencies
				$ 450,000.00	EST TOTAL

C. Portal Review Committee: The State will provide Portal Review Committee members with a stipend. The total cost of these stipends in each project year is $9,000 ($500/stipend x 3 members x 6 committees). The total project cost is $27,000.

D. SIF Integration: The State will contract with a private vendor to integrate SIF. The Department estimates that this contract will cost $927,500 during year three of the project. Following is a breakdown of the costs associated with this contract:

Title	Rate	How many?	Est. hours	Total	
Project Manager	$ 150.00	1	160	$ 24,000.00	
Business Analyst	$ 110.00	2	300	$ 66,000.00	
Technical Lead	$ 125.00	3	240	$ 90,000.00	
Programmer	$ 125.00	3	300	$ 112,500.00	
				$ 292,500.00	Contractual/RFP
				$ 550,000.00	Software
				$ 75,000.00	Travel
				$ 10,000.00	Contingencies
				$ 927,500.00	EST TOTAL

E. Graphic Design: The State will contract with a graphic designer to develop promotional materials. The total project cost of this item is $15,000. The cost of this contract in year one is $5,000, in year two is $5,000, and in year three is $5,000.

7. Construction: $0

8. Other

A. Registration Costs for Staff Training: Alaska staff will attend the following training to increase the State's knowledge and skill using Oracle's Database Administrator, Application Server Administrator, Portal Developer and Discoverer tools. The total project cost for training registration is $48,600. The total cost in year one is $36,000. Following is a list of the costs associated with each training in year one:

1. Oracle Training: Administration Workshop 1 x 6 staff members: $9,000
2. Oracle Training: Administration Workshop 2 x 3 staff members: $4,500
3. Oracle Training: Warehouse Administration x 2 staff members: $1,800
4. Oracle Training: Application Server Administration 1x 3 staff members: $4,500
5. Oracle Training: Application Server Administration 2 x3 staff members: $4,500
6. Oracle Training: Building Corporate Portals x 9 staff members$8,100
7. Oracle Training: Building Portals with Java x 6 staff members: $3,600

The total cost of training in year two is $12,600. Following is a list of the costs associated with each training in year two:

1. Oracle Training: Create Queries and Reports x 9 staff members: $5,400
2. Oracle Training: Develop End User Layers x 8 staff members: $7,200

B. Meeting and Facility Costs for Stakeholder Meetings: The State has budgeted to cover the costs of holding stakeholder meetings in Anchorage, Juneau, Fairbanks, Kotzebue, and Bethel. The total project cost for these meetings is $25,000. The request in year one is $5,000 ($5,000 x 1 meeting) and in year two is $20,000 ($5,000 x 4 meetings).

C. Teleconference Costs for Portal Review Committee Meetings: The Portal Review Committees will meet regularly throughout years one, two, and three of the project. The State has budgeted to cover the costs of these teleconference meetings. The total request in each year is $5,000. The total project cost is $15,000.

D. Meeting and Facility Costs for User Training: The State will provide a training for the Unity Project data system to end users at the end of this project. The Department has budgeted to cover the costs of the meeting space. The total request in year three is $5,000.

Indirect Costs: The State of Alaska Department of Education and Early Development's indirect rate negotiated with the U.S. Department of Education for July 1, 2005 through June 30, 2006 is 11.3%. The total request for indirect in year one is $95,628, in year two is $95,371, and in year three is $165,032. The total project cost for indirect is $356,031.

Unity Project: Data Mining for Student Success

Appendix A: Development and Implementation Timeline

Alaska Department of Education and Early Development
Unity Project: Data Mining for Student Success
Development and Implementation Timeline

		Phase 2: Development of Data Structure									Phase 3: Portal Construction																			Phase 4: SIF Integration					
Data System Development and Implementation Task	**Person Responsible**	**November 2005**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2006**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2007**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**
Hire Unity Coordinator	Karen Rehfeld	X	X																																
Hire Education Associate	Unity Coordinator		X	X																															
Hire 3 Program Analyst	Chris Letterman					X	X	X																											
Develop contract to complete Phase 2, publish RFP, and hold joint application meetings	Chris Letterman, Erik McCormick	X	X	X																															
Begins data structure	Contractor			X																															
Weekly teleconference with contractor	Chris Letterman, Erik McCormick				X	X	X	X	X	X																									
Data Oversight Committee (DOC) starts	Unity Coordinator		X																																
Monthly DOC meetings	Unity Coordinator			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Unity Training	Erik McCormick	X										X	X	X										X	X	X									X
Admin 1 Training	Chris Letterman	X																																	
Admin 2 Training	Chris Letterman		X																																
Application Server Admin 1 Training	Chris Letterman							X																											

		Phase 2: Development of Data Structure									Phase 3: Portal Construction																			Phase 4: SIF Integration					
Data System Development and Implementation Task	**Person Responsible**	**November 2005**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2006**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2007**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**
Application Server Admin 2 Training	Chris Letterman								X																											
Warehouse Admin Training	Chris Letterman									X																										
Data Structure completed	Contractor									X																										
Develop draft Unity Project user policies	Unity Coordinator		X																																	
Review assessment, reporting protocols, and federal regulations	Unity Coordinator		X	X	X																															
Develop Portal Review Committees (PRC)	Unity Coordinator					X																														
Identify training needs	Unity Coordinator						X	X	X	X																										
Develop training for teachers/administrators	Unity Coordinator								X	X	X	X																								
Pilot E-Modules for teachers/administrators	Unity Coordinator												X	X	X	X																				
Pilot course for district-level data entry staff	Unity Coordinator												X	X	X	X																				
Revise training and offer	Unity Coordinator																X																			
Hold regional stakeholder meetings	Unity Coordinator											X	X	X	X	X																				

		Phase 2: Development of Data Structure									Phase 3: Portal Construction																			Phase 4: SIF Integration					
Data System Development and Implementation Task	**Person Responsible**	**November 2005**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2006**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2007**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**
PRCs develop recommendations for each of the six portals	Unity Coordinator																X	X	X																	
Complete policies regarding dissemination of data and analyses results and data access	DOC Unity Coordinator																							X												
Make recommendations for contractor requirements	Unity Coordinator																		X																	
Develop contract specifications to complete Phase 3, publish RFP, hold joint application meetings	Chris Letterman, Erik McCormick, Unity Coordinator																			X	X	X														
Begin work on portal construction	Contractor																					X														
Weekly teleconference with contractor	Chris Letterman, Erik McCormick, Unity Coordinator																			X	X	X	X	X	X	X	X	X	X	X						
Internal portal finished and tested	Contractor, Chris Letterman, PRC																					X	X	X												
District Portal finished and tested	Contractor, Chris Letterman, PRC																								X	X										

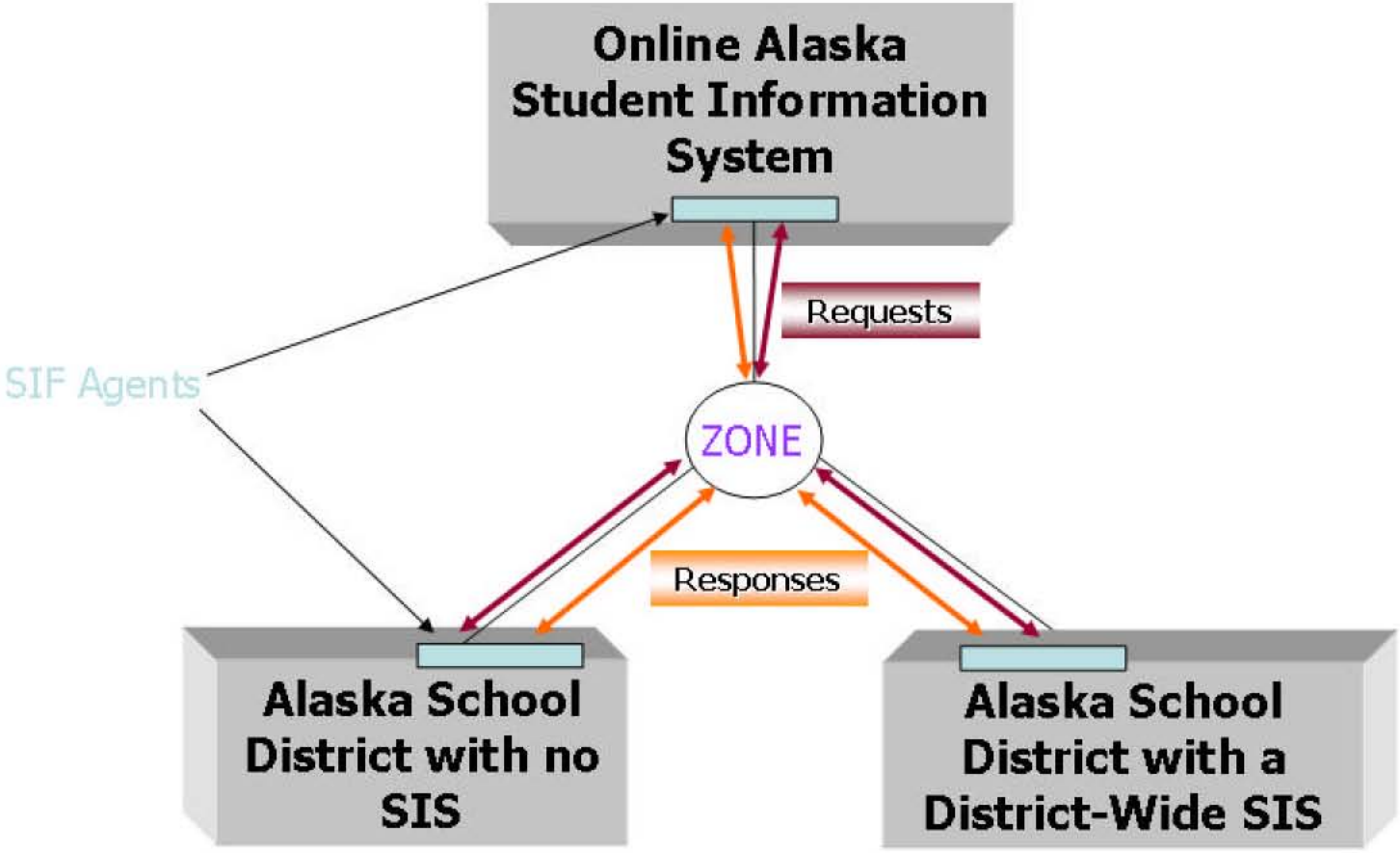
		Phase 2: Development of Data Structure									Phase 3: Portal Construction																					Phase 4: SIF Integration					
Data System Development and Implementation Task	**Person Responsible**	**November 2005**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2006**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2007**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**
Researcher Portal finished and tested	Contractor, Chris Letterman, PRC members																											X	X								
Federal and Legislative Portals finished and tested	Contractor, Chris Letterman, PRC members																													X							
Public Portal finished and testing	Contractor, Chris Letterman, PRC members																														X						
Portal Construction Completed	Contractor																														X						
Building Corporate Portals Training	Chris Letterman										X																										
Building Portals with Java Training	Chris Letterman											X																									
Create Queries and Reports Training	Chris Letterman												X																								
Develop End-user Layers Training	Chris Letterman													X																							
Develop contract specifications to complete Phase 4, publish RFP, and hold joint application meetings	Chris Letterman, Erik McCormick, Unity Coordinator																												X	X							

		Phase 2: Development of Data Structure									Phase 3: Portal Construction																				Phase 4: SIF Integration					
Data System Development and Implementation Task	**Person Responsible**	**November 2005**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2006**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October 2007**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**
Contractor begins work on SIF Integration	Contractor																													X						
Weekly conference call with contractor	Chris Letterman																														X	X	X	X	X	X
Purchase and deliver servers to 54 districts	Chris Letterman																													X						
Travel to districts as needed	Contractor																														X	X	X			
Complete SIF integration with remaining 34 districts	Contractor																																X	X	X	X
SIF Integration Complete	Contractor																																			X
Complete Development of User Manual	Unity Coordinator																																	X		
Statewide Unity Project Training	Unity Coordinator																																			X
Ongoing Evaluation	DOC		X			X			X			X			X			X			X			X			X			X			X			X

Unity Project: Data Mining for Student Success

Appendix B: Optional Attachments

Basic Data Flow



(11) (43)

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June 23, 2005

Statewide Longitudinal Data System Grant Review Committee
Institute of Education Sciences
National Center for Educational Statistics
1990 K Street, NorthWest, Room 9067
Washington, DC 20006

Dear Statewide Longitudinal Data System Grant Review Committee Members:

I am delighted that the Alaska Department of Education and Early Development has undertaken a project that will make database decision making a reality in Alaska schools. Both research and common sense indicate that this is the key to improving student achievement. I wholeheartedly support the department's application for the Statewide Longitudinal Data System grant from the U.S. Department of Education.

This data system will make it easier to get to the information that our state legislators and I need in order to assess critical issues such as program effectiveness and appropriate funding levels. In addition to improving access to data outputs, the new system will clearly be more efficient on the input side. I have long been an advocate of streamlining administrative processes and nowhere is that more important than in schools and school districts.

This efficient, flexible tool will give teachers the information they need to improve student learning. It will lessen the administrative burden on school and district administrative staff, allowing them to concentrate on educating students rather than filling out endless repetitive forms. Undertaking this project is critical to improving student outcomes.

I appreciate your consideration of Alaska's grant application. Please contact me if there is anything that I can do to make this project a reality.

Sincerely yours,

Frank H. Murkowski
Governor

LISA MURKOWSKI
ALASKA
MAJORITY DEPUTY WHIP

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CHAIRMAN, SUBCOMMITTEE ON WATER AND POWER

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CHAIRMAN, SUBCOMMITTEE ON EAST ASIAN AND PACIFIC AFFAIRS

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June 22, 2005

Statewide Longitudinal Data System Grant Review Committee
Institute of Education Sciences
National Center for Educational Statistics
1990 K Street, NW, Room 9067
Washington, DC 20006

Dear Committee Members:

I am pleased to provide a letter of support for the Alaska Department of Education and Early Development's Statewide Longitudinal Data System proposal, known as the Unity Project. The project will provide accurate, timely, and easy-to-access information about student achievement to users in a web based and searchable format.

I support this project for many reasons. First, access to student-level data will give teachers and administrators the tools they need to improve student achievement. The State of Alaska standards and assessments created an instrument for our State, districts, and schools to make data-driven decisions about education in Alaska. The Unity Project will give districts the analytical tools to analyze the data from these assessments.

Second, this project will enable the State of Alaska to demonstrate the effectiveness of its unique programs. The No Child Left Behind Act requires states to implement research-based programs. In Alaska, many of our communities are very different from those in the contiguous United States and face unique challenges in meeting the educational needs of our children. The Unity Project will provide a tool for researchers to investigate educational practices in our State and recommend successful, research-based Alaskan programs.

I know that creating a statewide system will significantly improve student achievement across the State of Alaska. I urge you to give this grant the appropriate consideration it deserves. Please keep me updated on the progress of this grant application.

Sincerely,

Lisa Murkowski
United States Senator

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MURKOWSKI.SENATE.GOV

Alaska State Legislature

Representative Peggy Wilson
House District 2
Putting Alaska's Families First

Statewide Longitudinal Data System Grant Review Committee
Institute of Education Sciences
National Center for Educational Statistics
1990 K Street, NW, Room 9067
Washington, DC 20006

Dear Statewide Longitudinal Data System Grant Review Committee Members:

I am pleased to write a letter of support for the Alaska Department of Education & Early Development's application to create a statewide longitudinal data system known as the Unity Project. As an Alaska legislator, I frequently request information about student achievement from the department. This information is essential to determining basic funding levels for schools in our state and for establishing education policy that increases the academic achievement for all Alaska students.

It is my understanding that the Unity Project will provide the information I need instantaneously. I would support the Unity Project for this feature alone. The decisions that I make during the legislative session are time-sensitive and the more quickly I can determine the true cost or outcome of a situation the better my decisions will be.

Other features of the Unity Project have also earned my support. I am particularly excited that our school districts will be better able to make data-driven decisions. When the state implemented Alaska standards and assessments to measure student achievement, many districts did not have the tools to analyze the data to improve student achievement. Many still lack these tools. The Unity Project will provide these districts with a data system to analyze their students' growth and also with the training to help districts ask the right questions.

I know that creating a statewide system will significantly improve student achievement across the state of Alaska. I think the Unity Project will make a difference and will help the children of Alaska get a better overall education. Thank you for your consideration of Alaska's grant application. If you have any questions, please contact me.

Sincerely,

Peggy Wilson

Peggy Wilson
Alaska State Representative
District 2

Jan-May, Juneau: State Capitol • Juneau, AK 99801-1121 • *ph:* (907) 465-3824 • *fax:* (907) 465-3175
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June 21, 2005

Statewide Longitudinal Data System Grant Review Committee
Institute of Education Sciences
National Center for Educational Statistics
1990 K Street, NW, Room 9067
Washington, DC 20006

Dear Committee Members:

I am pleased to support the Alaska Department of Education & Early Development's proposal to develop a Statewide Longitudinal Data System, which will provide accessible and important student achievement data to teachers. For years, we have known that teacher turnover and poor student performance are exacerbated by lack of access to timely student information. I anticipate that this new system will help with both of these critical issues.

With the proposed system, teachers will be able to create reports at the beginning of the school year showing how each of their new students performed on spring assessments. For the first time, teachers will be able to begin the year with differentiated teaching plans specifically targeted to individual students. This is particularly important in Alaska where we have large geographic distances between schools and a culturally diverse student population.

We have been working with the Department of Education & Early Development for several years providing teacher mentoring and recruiting services. This system will further enhance the already strong collaboration between EED and the University of Alaska. Teacher training will be an important part of leveraging this new system into improved student achievement. I look forward to working with the department to develop courses to train teachers in data-driven instruction.

Implementing the Statewide Longitudinal Data System will improve teachers' ability to educate their students. I urge your consideration of the department's grant application. Please contact me if there is anything I can do to help advance the project.

Sincerely,

Mark R. Hamilton
President

Nome Public Schools
P.O. Box 131,
Nome, Alaska 99762
(907) 443-2231

Statewide Longitudinal Data System Grant Review Committee
Institute of Education Sciences
National Center for Educational Statistics
1990 K Street, NW, Room 9067
Washington, DC 20006

Dear Statewide Longitudinal Data System Grant Review Committee Members:

I am pleased to write a letter of support for the Alaska Department of Education & Early Development's application to create a statewide longitudinal data system known as the Unity Project. The Nome City School District is ready to implement data-driven decision making to improve our students' achievement and the Unity Project will make it possible for us to do so.

We are excited about this project because it will streamline our data reporting to the State of Alaska and to the U.S. Department of Education. School Districts will not need to enter the same data many times. It will make No Child Left Behind reporting easier and less time-consuming for our staff. It will allow our district to analyze our student-level data over time. And it will allow our district to assess and evaluate the programs that we have implemented to improve student achievement.

By spending less time collecting and reporting data, we will be able to spend more time focusing on student achievement. By offering local education agencies in Alaska the ability to customize information and reports through the web portal, we will be able to stay on target and use data to drive the instruction.

I know that creating a statewide system will significantly improve student achievement in our district and across the state of Alaska. Thank you for your consideration of Alaska's grant application. If you have any questions, please contact me.

Sincerely,

Stan Lujan

Stan Lujan, Superintendent
Nome City School District

Pioneer Printing Co., Inc

Dba Ketchikan Daily News

June 28, 2005

Statewide Longitudinal Data System Grant Review Committee
Institute of Education Sciences
National Center for Educational Statistics
1990 K Street, NW, Room 9067
Washington, DC 20006

Dear Committee Members:

I am pleased to write this letter of support for the Alaska Department of Education & Early Development's application to create a statewide data system called the Unity Project.

As the publisher of the *Ketchikan Daily News*, I know how important it is for reporters and editors to have quick and easy access to reliable statistical information about education. Our newspaper often reports on complex education issues to keep our readers informed about the progress of our students and schools using statistical information. I know local policy makers, parents and other community members look to reliable statistical information to make important decisions about our schools.

Our newspaper requests the state Department of Education to provide some of this information. I am pleased to see our state make this proposal to increase access to and the quantity and quality of statistical information.

I am very interested in seeing the final product that the department proposes, should your organization award the department a grant. The Unity Project would benefit our news and editorial pages and it would benefit the quality of our community's decisions about schools.

I also believe the product developed under the Unity Project can be equally useful to all Alaska news media and their communities.

Sincerely,

Tena

Tena Williams
Co-Publisher
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Ketchikan, AK 99901
(907) 225-3157