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Nevada's Statewide Education Database

The goal of Nevada's statewide education database is to support decision making, school management, accountability, and funding with quality and timely data. To accomplish this goal moving forward, the department has reviewed comments about the current SMART system, examined new requirements for No Child Left Behind (NCLB), discussed directions with Senator Tiffany, Assemblyman Beers and LCB staff, and engaged a national expert in education data and new federal reporting requirements to create a unified and up-to-date direction for Nevada. Building upon the infrastructure delivered by SMART, including the purchase of student information software for all Nevada schools, this direction focuses on maximizing the use of the data collected by educators, policy makers, and other stakeholders.

The plan described here envisions a process for collecting and reporting education data that will be streamlined, web-based, and compliant with national standards, but more importantly, opens access to the data to authorized users for approved purposes without compromising the protection of individual privacy as protected by state and federal laws. Use will be supported by adopting national standards that allow education data to be open and easily available to multiple software applications. These include U.S. Department of Education data definitions, XML exchange format, and Schools Interoperability Framework (SIF) standards. Using these standards, the statewide education database will move to a web-based technology that is efficient and timely.

There are four major components to the education database, to respond to the demands for combining all pertinent education data under a single, comprehensive information umbrella.

1. Student data (assessments, enrollments, demographics, programs)
2. Educator data (qualifications, assignments, training)
3. School and district data (statistics and characteristics)
4. Financial and program data (In\$ite)_{tm}

There are four major issues that the education database will address.

1. Reducing the burden and cycle time required to extract data from school software for submission to the Nevada Department of Education (NDE).
2. The ease of use anticipated from conversion to a web-based interface.
3. The accessibility of the data by software applications for other purposes such as instructional improvement.
4. The growing demands for education data reporting such as those required by No Child Left Behind (NCLB).

The current investment and accumulated assets built by the SMART database will be continued during the transition to the new education database. This month, the long-term plan for SMART will be successfully implemented. The next biennium will see the transition to current standards and the expansion of the capacity of the database to serve the growing and changing needs of our schools, districts, policy makers and educators.

| | | FY 2004 | FY 2005 |
|---|---|------------|------------|
| 1 | <p>Extract—Improve the SIS extract process to reduce the cycle time for moving data from the local SIS to NDE and to reduce the burden on districts to create the extracts; minimize the dependence of districts on the vendors' extract process.</p> <ul style="list-style-type: none"> • NDE will conduct an analysis of the process for extracting data from each of the student information systems in Nevada to determine how the cycle time for extracts can be reduced, and frequency of extracts can be increased. • NDE will work with districts and SIS vendors to design and implement a standardized District set-up across all users of the same software for relevant user-defined fields, table names, and codes in order to establish a common structure from which extracts can be processed. • NDE will analyze the cost-benefits of replacing the current extract processes used by the SIS vendors with a direct file copy process from which NDE would be able to access the required data. • NDE will implement the results of the Extract Study across all state SIS systems. | 150,000 | 300,000 |
| 2 | <p>Pre-ID—Require pre-identification of all assessments to reduce the cycle time for results and to improve the quality of the data as required to be reported for No Child Left Behind.</p> <ul style="list-style-type: none"> • NDE will establish a standard set of data elements in a record that satisfies all requirements for a pre-ID process for all Nevada students taking a statewide assessment. • A standardized extract process, for transmission to the testing vendors, will be established to be run as close as possible to the time of testing to ensure the highest alignment between enrolled students and tested students. • For students without a pre-ID record, a post-ID record will be created and provided to the testing vendor. • Ensure that all current and future assessment vendors comply with the established standard. | 75,000 | |
| 3 | <p>Conversion to a Web-Based System—Replace the current District import and verification software with a web-based system that is managed by NDE.</p> <ul style="list-style-type: none"> • Design and build a web front end as the user interface for all import, verification and reporting processes. • Convert the current ExPRESS.nv application to an on-line application. • Adopt an XML standard for exchanges of data within the system. • Build a Schools Interoperability Framework (SIF) agent that will provide access (with appropriate authentication of the user/application) to the data by other SIF compliant applications adopted by individual districts. | 200,000 | 150,000 |
| 4 | <p>Data Warehouse—Extend the existing data warehouse to incorporate and link additional information and to make the import and export of data and access to the data aligned with XML and SIF standards.</p> <ul style="list-style-type: none"> • The data warehouse will be extended to include tables for financial, teacher and other data areas. | 125,000 | 150,000 |

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| | <ul style="list-style-type: none"> • NDE will create an import process into the data warehouse from the financial database (In\$ite), and available teacher data. • A link between the districts' SIS and the teacher data will be established using the teacher licensure number, which will be incorporated into the SIS and linked to courses and classes being taught. • NDE will build a SIF agent that will provide access (with appropriate authentication of the user/application) to the data by other applications adopted by individual districts. | | |
| 5 | Student ID Locator <ul style="list-style-type: none"> • NDE will build an on-line student locator system that will allow districts to verify previously assigned student Ids for individual students using directory information as appropriate (under FERPA guidelines), or assign student Id's for new Nevada students. • NDE will establish an ongoing process for cleaning the Ids assigned and reported by districts to ensure that the Ids are unique and permanent. | 100,000 | 50,000 |
| 6 | Web Reports – Create a user based reporting system that enables Nevada Education users to access appropriate reports and ad hoc query tools locally via web browsers in a secure environment. <ul style="list-style-type: none"> • NDE will study the needs of targeted groups of Nevada Education users. Based on this study, and the expanded education database described in this document, NDE will specify and create reports appropriate to each defined group, aligned with their level of access. These reports will reflect all aspects of the Nevada education database. • NDE will create Query functionality based on the existing Ad-hoc Query Tool for use on the Web. | 150,000 | 341,200 |
| 7 | Updates to the Host System <ul style="list-style-type: none"> • NDE will update the Host system to support administration of the enhancements described in this document. • Required updates to accommodate new data elements and areas will be applied. | 150,000 | 50,000 |
| 8 | NDE Technical Support <ul style="list-style-type: none"> • Nine school districts including Clark and Washoe use the SASIxp student information system and five districts use WinSchool. One full-time SASIxp staff and one one-half-time WinSchool staff at \$70,000/year to assist districts with SMART-SASIxp and SMART-Chancery issues, respectively. | 105,000 | 105,000 |
| 9 | District Technical Support <ul style="list-style-type: none"> • District technical support to facilitate changes to the data elements, data quality assurance, the increased demands in reporting SMART data, and implementation of web-based reporting software in the schools and district offices is required. One staff member for two school districts (Washoe and Clark) and one-quarter staff for all remaining districts at a rate of 50,000/year. | 287,500 | 287,500 |
| 10 | SMART Advisory Committee | 11,900 | 11,900 |
| 11 | State Computer Programmer Position | 57,747 | 57,748 |