THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

TO:	P-12 Education Committee
FROM:	John B. King, Jr.
SUBJECT:	Timeline to Complete the P-20 Data System
DATE:	July 14, 2010
STRATEGIC GOAL:	Goals 1 and 2
AUTHORIZATION(S):	

SUMMARY

Issue for Discussion

        The Department is engaged in a major, four-year reform and expansion of the P-12 data system. New leadership, a project team orientation that has combined expertise from the Department's data units and its IT staff, and almost $48 million in additional funding from federal and state grants are enabling us to take the following actions:

- Collect teacher and course data
- Link P-12 and Higher Education data
- Create an electronic student transcript that will accompany students throughout their schooling
- Create an Early Warning System to help at-risk students
- Link with other state agencies, state financial aid, vocational rehabilitation, and potentially early childhood data systems
- Improve data quality and overall system performance, with daily data verification and error checks for schools.

        In 2008, the Board of Regents entered into an agreement with the State University of New York, the City University of New York, and three of the largest school systems (New York City, Yonkers, and Syracuse) to create a P-16 data system. In order to carry out that work, the Department's data system was placed under new leadership 18 months ago, with a Project Team led by Alan Ray, Assistant Commissioner for Strategic Planning and Policy, and David Walsh, Chief Information Officer. The Project Team consists of key staff from IT and from the P-12, special education, and higher education data offices. A new Data Director, Ken Wagner, was also recruited to help reform and expand the data system; the position had gone unfilled for almost two years before then.

The data system at that point collected basic demographic and state assessment data on each student (e.g., race and ethnicity, age, school attending, test scores, disability and English Language Learner status) and could track students throughout their P-12 schooling. But the amount of data collected was clearly too limited given the instructional needs of schools and the policy needs of the Board of Regents. Furthermore, the system was not user-friendly; school officials complained frequently about the infamous electronic "spinning cube" that caused long delays in reporting and verifying data. Data collection was therefore slow, and the Department missed federal deadlines in reporting school accountability and other results.

Therefore, the Project Team set out to accomplish two immediate goals:

- Reform the data system so it works fast and efficiently, with quicker turnaround and more edit checks for data accuracy.

- Raise funds to expand and improve, creating a true P-20 data system. There were at the time **no funds** available to carry out that work.

Since then, the data system has been made much easier for schools to use, with new alternative reports to schools for data verification and new edit checks for accuracy. Data is collected and reported more quickly; last year, for the first time in six years, schools received accountability decisions before the start of school, as required by federal law. We are also going through a review of security and privacy procedures to ensure that the best state-of-the-art protections are in place; that work will also move forward as we expand the data system.

Even more significantly, we have raised $27.5 million in competitive federal grants and $20.4 million in state capital funds – **a total of $47.9 million**. In 2009, the Department received $7.8 million in a national competition, to be used over four years. In May 2010, New York was ranked first in a 50-state competition for a second round of federal funding and received the largest grant made - $19.7 million, to be used over three years; New York's application in fact received the highest score given throughout the four-year history of the federal competition. Also this year, the legislature and Governor agreed to provide $20.4 million in capital funds to expand the data system.

With this new funding, work is now underway to carry out a major expansion of the data system, along with faster reports for data verification and a broad array of edit checks to improve data quality. Below is a list of key actions we are taking to create a true P-20 data system:

Deliverable 1: Collect Teacher and Course Data: Support for Growth Model and Performance Evaluations (Teachers, Principals, and Teacher/Principal Preparation Programs)

Description: To assist both classroom instruction and the development of new methods for evaluating teachers, principals, and teacher/principal preparation programs, the data system will collect and report additional information on teachers and the courses they teach.

Implementation Plan
- 2010-11 – **Teacher and course data** (teacher, course, and, for high school, final course grade) will be collected electronically by subject and reported for courses in which there are State assessments (grades 3-8 ELA and mathematics, grades 4/8 science, and high school courses leading to a Regents Examination).
- 2011-12 – **Additional Teacher and Course Data**
  - o The collection and reporting of teacher and course data will be expanded to include grades 7-8 final course grades, grades 7-12 course credits, multiple teachers per course, rules to identify the teacher(s) of record for evaluation purposes, teacher evaluation outcome, data on teacher tenure and denial, BOCES teachers, teacher certification(s), teacher preparation program, and teacher preparation pathway.
  - o NYSED will explore issues involved in standardizing, collecting, and reporting elementary-level final course grades.
- 2012-13 – The data described above will be collected and reported for all courses aligned with a **K-12 comprehensive course catalog**.

Deliverable 2: P-12 and Higher Education Linkages

Description: Linking the K-12 and higher education data systems will allow for richer longitudinal analyses and the identification of additional opportunities to improve educational programs and prepare students for college and careers.

Implementation Plan
- 2010-11 – **K-12 and Higher Education Data Exchanges**
  - o NYSED will provide SUNY and CUNY with the following for analysis and reporting purposes: unique K-12 statewide student identifier, basic demographic information, student-level enrollment and outcome information (including year of graduation and diploma earned), and assessment information (including performance on Regents Examinations).
  - o SUNY and CUNY will provide NYSED with the following cohort data (students entering in fall 2005, 2006, 2007, 2008) for analysis and reporting purposes: basic demographic information, higher education student-level enrollment information and key indicators of postsecondary success, including participation in remedial coursework, credit hours earned, grade point averages, and academic program of study.
- 2011-12 – **Enhance Data and Infrastructure**
  - o The SUNY and CUNY data systems will be upgraded, standardized, and integrated with the NYSED data system to allow for more detailed analyses.
  - o SUNY and CUNY will provide NYSED with additional student-level data (e.g., additional demographics, degree earned, and financial aid information).
- 2012-13 – **Higher Education Comprehensive Course Catalog**
  - o Additional student-level data (applications and admissions, course enrollments, course grades) will be collected and a comprehensive course catalog will be developed.

o SUNY and CUNY will report data to the system at the end of each term; the system will be used for information exchanges among SUNY, CUNY, and NYSED. Access rules and privacy protections will be established.
o Private and independent colleges/universities will be encouraged to participate in the data system.

Deliverable 3: Electronic Student Transcripts

Description: Electronic student transcripts will provide a standard and timely communication vehicle for students and those providing P-12 and higher education services. In combination with Deliverable 2, these linkages and system improvements will produce an improved user experience.

Deliverable 3 is dependent on the timelines outlined for Deliverables 1 and 2. Additional target dates include the following.

Implementation Plan
- 2010-11 – **Design specifications** for electronic student transcripts will be finalized.
- 2011-12 – **A vendor will be chosen and will build** the electronic student transcripts (with maintenance transition to NYSED).
- 2012-13 – **An electronic student transcript system will be implemented** for P-12 and may be implemented for higher education, including courses identified in the comprehensive K-12 and higher education course catalogues.

Deliverable 4: Early Warning System for At-Risk Students

Description: The P-16 data system can provide information to help identify the students at risk of not completing educational programs. Schools can use this information to provide students with targeted assistance.

Deliverable 4 is dependent on the timelines outlined for Deliverables 1 and 2. Additional target dates include the following:

Implementation Plan
- 2010-11 – **Planning**
  o Design specifications will be finalized for early warning reports to predict students at risk of not completing K-12 educational programs or not enrolling in or completing higher education programs.
  o Policy issues related to the standardization of course attendance and daily attendance will be resolved.
- 2011-12 – **Implementation**
  o A vendor will be chosen and will build an early warning reporting system (with maintenance transition to NYSED).
  o Early warning reports will be rolled out as data elements become available.
  o K-12 student-level course attendance will be collected and included in Early Warning reports.

- o K-12 student-level course grade and credit information will be included in Early Warning reports.
- o Additional high-priority data elements will be collected and reported for English Language Learners.
- 2012-13 – **Expansion**
  - o K-12 daily attendance will be collected and included in Early Warning reports.
  - o Higher education data will be included in Early Warning reports.
  - o The data elements collected and reported for English language learners will be further expanded for richer levels of analysis.
- 2013-14 – **Review and Revise**
  - o Violent and disruptive incident data will be collected for each student and included in Early Warning reports.
  - o Reports will be modified as necessary to take advantage of current research and additional data elements.

Deliverable 5: P-20 Data System

Description: Linking the P-16 data system to data maintained by other State agencies will allow for richer longitudinal analyses and the identification of additional opportunities to assist students and improve programs

Implementation Plan
- 2010-11 – **Planning for Linkages and Integrations**
  - o Planning will take place for linkages with other State Agency data systems, including the adoption of data sharing agreements and privacy protections.
  - o Planning will take place for integrations with early childhood data collections.
  - o Planning will take place for linkages with vocational rehabilitation and state aid and fiscal data systems.
- 2011-12 – A vendor will be chosen and will implement the necessary **modifications to the statewide unique student identifier system** (with maintenance transition over to NYSED).
- 2012-13 – **P-20 Implementation**
  - o The P-16 data system will be linked to other systems, including SED's own vocational rehabilitation data and, as State agency resources allow, data from the Office of Children and Family Services, Criminal Justice, Health, Labor, Mental Health, etc.
  - o Early childhood and state aid / fiscal data will be integrated for analysis purposes.

Deliverable 6: Improve Data Quality and System Performance

Description: We are working with our partners to make it easier to submit, review, and verify high quality data. Data which are complete and accurate will provide teachers and other educational leaders with timely and actionable information to improve instruction and student learning.

Implementation Plan

- 2010-11 – **Data Verification and Data Quality Reports**
  - Faster and easier replacements will be created for all existing nySTART (GROW-created) verification reports.
  - NYC will join the rest of the State in rolling out the faster, easier-to-use alternative to nySTART for all NYSED verification reports.
  - Additional data verification reports will be developed (e.g., CTE participation and completion, teacher/course data verification, etc.).
  - Additional data quality reports will be developed (e.g., to provide alerts for significant year-to-year changes in data elements).
- 2011-12 – **Improved Reporting Processes**
  - Basic verification reports will be available within 24 hours.
  - A longer period of time will be available for schools to use the more complex verification reports that are generated on a weekly basis.
  - In order to move toward the elimination of duplicate reporting, aggregated BEDS data will be reported only through the student-level data system (enrollment for State aid calculations, universal pre-kindergarten, approved GED program participation, free/reduced price lunch eligibility)
  - Submitting acceptable historical data updates and corrections will be easier and less prone to user error.
  - Audit data (i.e., who changed data and when) will be collected on all data submissions.
- 2012-13 – **Additional system improvements** will be deployed wherever possible to fully automate data flow from the school/district to NYSED to reduce the burden on the field and increase data quality (i.e., eliminate manual processing to move data files).

Reforming and Expanding the New York State Education Data System – $47.9 Million in Federal and State Grants

IES-1	IES-2	NYS Capital Funding
$7.8 MM	**$19.7 MM**	**$20.4 MM**
4 years / June 1, 2009	3 years / July 1, 2010	3 years / September 1, 2010 (est.)
Improve the collection and reporting of required accountability data: • Improve data quality; • Improve data portal and reporting tools to benefit schools and districts. • Establish data management committees to facilitate communication with the field.	**Expand the data system, improve collection of all data elements required in America Competes Act:** • Establish significant support for statewide regional data centers (e.g., hardware, software licenses) to handle increase in data collection and improved data quality; • Collect basic teacher/course data; • Create initial linkages with SUNY/CUNY; • Collect basic higher education data; • Develop protocol for linkages with private colleges; • Develop initial linkages with other State agencies (e.g., workforce, children and family services); • Plan for instructional improvement system. • Plan for early warning system to help at-risk students. • Collect other key data elements: (e.g., attendance, suspension, additional ELL data).	**Maintain and expand data collection to create a true P-20 Data System:** • Expand data system infrastructure to collect and report additional data (student attendance, disruptive incidents); • Expand teacher/course data • Create electronic student transcript (K-12 through college); • Expand SUNY/CUNY data systems; • Fully integrate linkages with SUNY/CUNY • Expand unique student identifier system to link with multiple data systems (e.g., workforce, children and family services); • Based on expanded data collection, develop early warning reporting system to help students not on track, at risk dropping out.