



**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:** P-20 Data System Update  
**DATE:** October 28, 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. With almost \$115 million in additional funding from federal and state grants, as well as the combined resources of the Department's data unit and IT staff, we are now able to take the following actions:

- Collect teacher and course data;
- Link P-12 and Higher Education data;
- Build a Data Portal and Instructional Reporting and Improvement System that helps teachers, school officials, and parents improve student achievement and close the achievement gap;
- Create an electronic data exchange system (i.e., transcript information) 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 early childhood data systems;
- Improve data quality and overall system performance, with daily data verification and error checks for schools.

A detailed timeline was presented to the P-12 Education Committee at its July meeting. The following is a status update, as well as the inclusion of a new deliverable funded by Race to the Top – the Data Portal and Instructional Reporting and Improvement 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.

### Update:

For the current school year, we will collect **teacher and course data** (teacher, course, and, for high school, final course grade) 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). Elementary schools with students assigned to homerooms or “common branch” courses have a one-year extension to update their capacity to report student-level enrollment by subject and teacher during the 2011-12 school year.

We have begun planning efforts to expand the data model to include **additional teacher and course data** for the 2011-12 school year. These new data will include grades 7 and 8 final course grades, grades 7-12 course credits, multiple teachers per course, rules to identify the teacher(s) and principal of record for evaluation purposes, teacher observation/evaluation outcome, data on teacher/principal tenure and denial, data for BOCES teachers/principals, teacher certification(s), teacher preparation program, and teacher preparation pathway.

## **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.

### Update:

We are working with SUNY and CUNY to finalize a three-year project plan. For the current school year, SUNY and CUNY will provide NYSED with the following **student-level cohort data** for analysis and reporting purposes (students entering college in the fall of 2005, 2006, 2007, and 2008): basic demographic information, higher education enrollment and key indicators of postsecondary success, including participation in remedial coursework, credit hours earned, grade point averages, and academic program of study.

For the 2011-12 school year, SUNY and CUNY will work to **enhance their system infrastructure** to support the submission of end-of-term (vs. cohort) student-level data, as well as the integration of the statewide P-12 unique student identifier. We are planning now for the incorporation of additional data, including degree earned, financial aid information, applications and admissions, course enrollments, and course grades. Access rules and privacy protections will be established. These data exchange

protocols will be used as a model for the integration of data from private and independent colleges/universities.

### **Deliverable 3: Data Portal and Instructional Reporting and Improvement System**

Description: The Education Data Portal and Instructional Reporting and Improvement System will provide a networking platform and information repository for dashboard reports and other customized resources so that diverse stakeholders—including educators, parents, students, policy leaders, researchers, and the media—can access and analyze educational data, make decisions, and take actions to improve student outcomes. The core functionality of these applications is scheduled for deployment in October 2012.

#### Update:

We are developing a comprehensive procurement strategy to ensure that our data system is integrated, flexible, and scaleable. Our design plans include basic portal and instructional reporting functionality (e.g., single sign-on, pre-designed dashboards and data views, the ability to create custom queries and views, the ability to upload and share best practice materials, multi-media capacity), while preserving the ability to integrate additional functional modules, including comprehensive assessment reporting (State, interim/benchmark, and local formative assessment), de-identified data for researcher access, the electronic exchange of student transcript information (Deliverable 4), and an Early Warning System (Deliverable 5).

### **Deliverable 4: Electronic Data Exchange**

Description: Electronic exchange of student transcript information will provide a standard and timely communication vehicle for students and those providing P-12 and higher education services.

#### Update:

We are developing an RFP to create the comprehensive course catalogues and reporting mechanisms necessary to exchange student data electronically between authorized P-12 and higher education institutions consistent with privacy and security requirements. The anticipated implementation date is the 2012-13 school year.

### **Deliverable 5: 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.

#### Update:

We are working with the Northeast Regional Educational Laboratory (NREL) to determine which research-based variables should be included in the design of an Early Warning system. We are crafting an RFP to develop the research-based algorithms

and reporting mechanism necessary to help educators understand which students may be at risk of dropping out of P-12 programs or not enrolling/persisting in post-secondary programs. It is anticipated that Early Warning reports will be rolled out, beginning with the 2011-12 school year, as data elements become available.

We have begun planning to add additional data elements to be included in the Early Warning System, including course and daily attendance, course credit, and discipline data.

### **Deliverable 6: 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.

Update:

We are creating an RFP to identify methods for matching individual records across multiple data systems. We are collaborating with our colleagues in other State agencies and other areas of the Department (e.g., Labor, Early Childhood, etc.) to plan for the integration of these data across systems, consistent with signed data sharing agreements and necessary privacy and security protections. It is anticipated that these data system integrations will occur during the 2012-13 school year.

### **Deliverable 7: 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 that are complete and accurate will provide teachers and other educational leaders with timely and actionable information to improve instruction and student learning.

Update:

We have begun to develop additional data modules to improve data quality and make the submission of historical data updates easier and more reliable. New York City has begun the process of integrating the Department's new verification report tables into its internal data verification operations. We have continued to develop new data verification reports (e.g., CTE participation and completion) and have plans for additional reports to be developed during the current school year (e.g., teacher/course data verification). We have moved forward with plans to provide quicker data verification reports, extend the data verification window, and eliminate duplication of data submission efforts.

## Reforming and Expanding the New York State Education Data System – \$114.7 Million in Federal and State Grants

| IES-1   | IES-2  | NYS Capital Funding  | Race to the Top  |
|---|--|--|--|
| <b>\$7.8 MM</b>   | <b>\$19.7 MM</b>   | <b>\$20.4 MM</b>   | <b>\$66.8 MM</b>   |
| 4 years /<br>June 1, 2009   | 3 years /<br>July 1, 2010  | 3 years /<br>September 1, 2010   | 4 years /<br>September 2010  |
| <b>Improve the collection and reporting of required accountability data:</b> <ul style="list-style-type: none"> <li>• Improve data quality;</li> <li>• Improve data portal and reporting tools to benefit schools and districts;</li> <li>• Establish data management committees to facilitate communication with the field.</li> </ul> | <b>Expand the data system, improve collection of all data elements required in America Competes Act:</b> <ul style="list-style-type: none"> <li>• Establish significant support for statewide regional data centers (e.g., hardware, software licenses) to handle increase in data collection and improve data quality;</li> <li>• Collect basic teacher/course data;</li> <li>• Create initial linkages with SUNY/CUNY;</li> <li>• Collect basic higher education data;</li> <li>• Develop protocol for linkages with private colleges;</li> <li>• Develop initial linkages with other State agencies (e.g., workforce, children and family services);</li> <li>• Plan for instructional improvement system;</li> <li>• Plan for early warning system to help at-risk students;</li> <li>• Collect other key data elements: (e.g., attendance, suspension, additional ELL data).</li> </ul> | <b>Maintain and expand data collection to create a true P-20 Data System:</b> <ul style="list-style-type: none"> <li>• Expand data system infrastructure to collect and report additional data (student attendance, disruptive incidents);</li> <li>• Expand teacher/course data;</li> <li>• Create electronic student transcript (K-12 through college);</li> <li>• Expand SUNY/CUNY data systems;</li> <li>• Fully integrate linkages with SUNY/CUNY;</li> <li>• Expand unique student identifier system to link with multiple data systems (e.g., workforce, children and family services);</li> <li>• Based on expanded data collection, develop Early Warning reporting system to help students not on track, at risk of dropping out.</li> </ul> | <b>Use the data system to improve instruction and student outcomes:</b> <ul style="list-style-type: none"> <li>• Build a data portal with customized dashboard reports and collaboration functionality based on stakeholder role (e.g., student, parent, educator, researcher);</li> <li>• Create a Statewide Instructional Reporting and Improvement System that helps teachers, school officials, and parents improve student achievement and close the achievement gap;</li> <li>• Incorporate performance evaluation systems based on student growth;</li> <li>• Expand linkages with participating private colleges and other State agencies (e.g., health, children and family services).</li> </ul> |