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## Ohio Final Report

### Executive Summary

The Ohio Teacher-Student Data Link project included policy work conducted at the Ohio Department of Education (ODE) as well as pilot projects with three Local Education Agencies (LEAs): Canton Local School District (CLSD), Columbus City Schools (CCS), and the Delaware City Schools (DCS). ODE's priority was to develop the definitions and policies associated with establishing "teacher of record" for the teacher-student data link (TSDL). The LEA pilots concentrated on multiple methods of roster verification at different grade ranges with Canton Local focusing on grades 1-5, Columbus City on middle schools, and Delaware City on the high school level. The results of the pilot projects were used to inform Ohio's strategy for performing roster verification to strengthen the data link between teachers and students. Funding from the Bill & Melinda Gates Foundation with technical assistance provided by the Center for Educational Leadership and Technology (CEL) supported their TSDL work.

### Project narratives for each of the project(s)

#### I. ODE's Teacher of Record Definition

Ohio identified three different, albeit related, definitions for teacher-student data linkages (often referred to generally as "Teacher of Record"). These three definitions have different needs, implications, and purposes although they all fit under the teacher-student data linkage umbrella. Ohio's policies and data system will provide a method of identifying all three. Many of these purposes (such as growth measures for non-tested subjects) are still under development. The TSDL-CEL pilot districts (Columbus, Delaware, Canton Local) provided detailed feedback from the LEA perspective.

#### Major Accomplishments

For the 2011-12 school year, ODE utilized the following three "Teacher-Student Data Linkage" definitions: Assigned Educator, Teacher of Record, and Contributing Professional. Listed below is detail for each definition:

1. Primary assignment (one teacher): *An **Assigned Educator** is the educator assigned to a student, usually for HQT assignment purposes. In some cases, this translates into the teacher responsible for assigning a grade.*
  - This is the common connotation for Teacher of Record answering "which teacher has primary responsibility for a student?"
  - Specifically for identifying HQT status.
  - Other uses: computer-based coursework (for example, the teacher serves as a facilitator/monitor and assigns the grade), credit recovery, Credit Flex, non-traditional settings (e.g. youth facilities).
  - Collection method: Ohio's Educational Management Information System (EMIS), which is Ohio's statewide data collection system used for state and federal reporting, funding and distribution of payments, academic accountability, and statewide and district reports. This is partially collected in Battelle for Kids (BfK) Linkage for relevant grades/subjects.
2. Precise accounting of instructional time for teacher-level value-added and other evaluation metrics including student growth in non-tested subjects: *A **Teacher of Record** is an educator who is responsible for a significant portion of a student's instructional time (based on enrollment) within a given subject or course that is aligned to a state assessment.*
  - Teacher-level Value-Added. Specifically designed to provide accurate data (roster verifications and proportional splits) for the SAS<sup>®</sup> Education Value-added Assessment System (EVAAS<sup>®</sup>) teacher-level value-added reporting.

- The relevant Teacher(s) of Record should represent the 100% proportion of a given student's instructional time for a specific subject/course aligned to a state assessment. This weighted variable would be an input into the EVAAS calculation for more accurate and fair teacher-level calculations.
    - For example, a 5th grade math teacher who is responsible for entirety of teaching a particular 5th grade student in math would account for 100%.
    - A team teaching situation may result in a 50/50 split.
  - Participating LEAs will utilize the Battelle for Kids Linkage system in Race to the Top (RttT) years 1-3 for roster verification activities. ODE expects to employ the BfK Community Link roster verification methodology in ensuing years. Subsequent teacher-level value-added reports will be provided through EVAAS.
  - Other evaluation metrics such as student growth in non-tested subjects. This work is under development primarily through RttT assurance area D and will inform the HB153 requirements for teacher evaluation.
    - May be collected through statewide linkage
  - Business rules to be developed for scenarios such as team teaching, intervention, tutoring, blended learning, Credit Flex, Post-secondary Enrollment Options, voucher students, Pre-K (schedule variations and expanded definition of educator/non-licensed personnel), performance-based assessments, senior projects, etc.
3. Multiple linkages: A **Contributing Professional** works with/has responsibility for a student and/or teacher, and should be specifically linked with relevant students.
- This is a yes/no flag to allow for simple and non-mutually exclusive linkages. Numerous contributing professionals/educators could be linked to a student.
  - Accurate linkages for IIS data system, other evaluation components, and other uses as identified by CELT pilot districts.
  - Collection Method: TBD (BfK- Linkage only partially informs)

### Lessons Learned

Ohio identified a number of general characteristics that the Teacher of Record definition(s) must address. They include:

1. Be linked to a student, not only a course-section
2. Be flexible to cover all grade levels, pre-K through 12
3. Accommodate teacher assignment changes and turnover during the course of the year
4. Be supportable by current systems and data collection methods (specifically the BfK-link system to be utilized by CELT pilots and RttT participants)
5. Be clear enough that teachers can validate their rosters to foster buy-in for such high-stakes uses as pay-for-performance and local teacher evaluation systems
6. Be applicable to all educators and cover all courses and subjects
7. Include non-traditional instructional practices, such as virtual (online) courses
8. Allow linkage to the standards that were taught and tested by a particular educator (i.e. data connections with proposed IIS)

In addition, a set of potential purposes was developed as follows:

1. Verify rosters to accurately identify teachers for a subject/course and track their contribution(s) to student achievement
2. Provide data for the teacher evaluation components of RttT-participating districts, as well as HB 153 requirements for teacher evaluation
3. Provide data for the required teacher evaluation components of School Improvement Grant (SIG) grantees
4. Allow a school district to identify team teachers, pullout teachers, assistant teachers, etc., and better track their individual contribution(s) to student achievement
5. Enable school districts to better identify the instructional practices and programs that are most and least effective
6. Plan and evaluate professional development
7. Support accountability and models (such as Teacher Incentive Fund) that reward educators for positive student outcomes

8. Evaluate teacher prep programs across colleges, universities and other program providers using student outcome data
9. Support accountability growth models based on longitudinal data that can link contributions to positive student outcomes and to multiple teachers, programs and schools
10. Identify highly effective teachers for collaborative support of others
11. Allow for targeted access to student data

The participating districts were included as partners in the stakeholder meetings facilitated by CELT in developing TSDL policies and definitions. Turnover of district leadership highlighted the need to identify and update new team members and continuously communicate progress and new issues.

## **II. Delaware City Schools – Teacher-Student Data Link Proof of Concept**

The Delaware City Schools utilized data from ACT<sup>®</sup> QualityCore End-of-Course assessments, populated along with Battelle for Kids databases in order to derive the analytical data required for the Value-Add Component. This provided the district with information to analyze the district's curriculum alignment.

### **Major Accomplishments:**

The initial phase of this project involved the development of business rules that address the student data requirements of ACT QualityCore's Assessment. From these rules the business processes were created to obtain the data elements from the district's students that were to be assessed at year-end. The Tri-Rivers Educational Computer Association development team created routines utilizing Oracle's Application Express (APEX) to extract current course enrollment data from the district's student Information System (SIS). These APEX routines created the course roster files based on file layout parameters provided by ACT. The files provided the data to populate the ACT QualityCore tables.

Roster files created by the APEX routines were hand-entered by guidance staff based on beginning of the year ESIS Class Roster loaded in the ACT QualityCore Assessment database tables. District administrators and teachers reviewed the ACT QualityCore database tables throughout the Open Window Process. During this process the class rosters were modified to accurately reflect the students being instructed in the classrooms. ACT QualityCore tests were distributed to the district and administered according to the rosters verified during the Open Window Process.

Quantitative indicators of performance were derived utilizing the value-add component endorsed by Battelle for Kids. The value-add components were derived via the SAS Educational Value-added Assessment System (EVAAS) which maximizes academic growth opportunities by assessing student's probability of future success at multiple academic milestones. The model also develops instructional objectives for the students and instructional effectiveness across all educational resources touched by the student, and provides the information to guide policy stakeholders.

## **III. Canton Local Schools – Teacher-Student Data Link Proof of Concept**

The Canton Local School District (CLSD) plan was to determine if using BrainHoney™, a learning management system, would increase the accuracy of the elementary school's teacher-student data link. The goal was to include grades 3 and 4 math students.

### **Major Accomplishments**

The plan was for the teachers to keep track of the data as they taught the various standards as part of their planning and assessment processes. In theory, this should have required a few minutes a day to update the information in the learning management system (LMS) during their planning time and/or before or after school.

CLSD was unable to get a true idea of how much time it would take to fully track the information. Although the tool was web-based, it was not as simple to use as anticipated. The difficulty of using the system ultimately stood in the way of the planned implementation.

### **Lessons Learned**

Because the school is an elementary school, the source data was accurate for putting students with their regular education teacher. Linking students to interventionists and special education teachers was more difficult because of the number of students involved and the difficulty involved in using the system. If the

system had been easier to use and CLSD had been able to fully implement the system, the granularity would have been very informative. The goal was to reach down to the standard level for each student. With the data that the district was hoping to collect, CLSD would have known which students were taught which standards by which teachers.

The process was not effective. The lack of ease of use and the time commitment was more than the district and teachers could manage. It was not practical to ask teachers to track which standards were taught to the specific students. In this case, the amount of data CLSD was trying to track was too great for the current systems and technology to handle. The issues that the district faced were caused by the amount of data they were trying to collect. CLSD reported that they do not think there was anything else the ODE could have done to be more helpful.

Finally, the project was too ambitious. Even though the theory of tracking who taught which standards to which students would be significant, it was not practical on a day-to-day basis with the current technology. The time involvement from teachers would have been overwhelming, especially as CLSD staff numbers continue to shrink.

#### **IV. Columbus City Schools – Teacher-Student Data Link Proof of Concept**

Columbus City Schools used the Battelle for Kids Roster Verification process from the previous school year to gather information about its feasibility. The process for roster verification and teacher linkage was conducted with 237 Grade 4-5 Reading teachers, 169 Grade 4-5 Mathematics teachers, 188 Grade 6-8 Reading teachers, and 159 Grade 6-8 Mathematics teachers.

##### **Major Accomplishments**

Identifying potential challenges and barriers and possible solutions are critical to the overall success of the project. Several important challenges/barriers emerged in Columbus. While the original roster used for the verification process is pulled from the October EMIS reporting file, the verification does not take place until the March/April timeframe. Although the BFK verification process was reported as simple to use, because of the time lag between roster creation and roster verification, the percentage of rosters that need to be changed during the verification process ran between 87% and 95%.

##### **Lessons Learned**

A number of challenges were identified by Columbus City Schools' (CCS) personnel in order to make the teacher-student data link more accurate. If EMIS is to continue as the system for reporting data to the state, all required collection elements need to be reported through this process. A few of the district's suggestions/challenges included:

- Teacher of Record – EMIS needs a “teacher standing record” that provides current year information about start date, end date, and breaks for long-term absences.
- Student Record – EMIS needs to track multiple admission and withdrawal records for students at the school and class level. Student systems that provide this data should be approved by the state.
- Interventions – Additional factors should be captured when a student is assigned instructional hours outside the normal schedule. Hours assigned should be collected as units of a “Full Academic Year”.
- Attendance – Classroom level attendance should be taken and incorporated into the information.
- Roster Verification – The data (beginning roster) for the verification process should be collected at or near the testing administration period.
- Education Record – An “education record” component should be added to designate that the student receives instruction 100% of the time. This time should default to 100% for the teacher of record or be shared in units of 20% or greater if multiple teachers contribute to the student's instruction.

Two other issues were identified by CCS personnel as important to the teacher-student data linkage as well as to the use of this information for teacher performance measures.

- SSID: The State of Ohio has initiated a statewide student identification system (SSID). Current rules based on law or interpretation of the State and Federal law has caused some issues within the student identifier structure. The issue of duplicate SSIDs must be addressed and resolved at the State level. Districts currently are being told to resolve issues but this is not practical. Student mobility, name changes, similar identifiers, multiple student systems and business rules

that are different for each district create unnecessary overhead and errors. Ohio's move toward the use of individual student data and the growth of each student based on prior data demands that the State SSID process improve. A review must be conducted and procedures developed that regulate this process as a statewide requirement to which all districts must conform.

- Value-Added: Value-Added measurements are based on the overall performance of individual students on the Ohio Achievement Assessments. These assessments are given in specific subject areas in designated years. The current value-added calculation uses the total assessment results to measure the growth of the student, class, grade level, school or district. The strand level data is not a determining factor in the current growth model. The strand level data is invaluable for guiding formative instruction for each student, but is not currently part of the value-added calculation. Therefore, collecting teacher data at the instructional strand level has no corresponding value-added measure. Additional linkage and test analysis would be required to obtain valid and reliable information and units of instruction that are less than a full year.

## **V. Conclusion and Next Steps**

Ohio continued with the Battelle for Kids roster verification for the 2011-2012 school year for all tested grades in participating RttT districts. A survey was conducted jointly by the Ohio Department of Education (ODE) and Ohio University to determine the ease of use for teachers. The ODE had originally planned to use the results from the survey and the pilot projects listed above to inform the work of creating a state-developed roster verification application to replace the one provided by Battelle for Kids. But, through contributions from the Bill & Melinda Gates Foundation, the "Community Edition" of the BfK roster verification tool is now available with no use fees. Consequently, ODE expanded the use of the tool to all school districts for the 2012-2013 school year and expects to continue its use in future years.

ODE's future focus for the roster verification next steps includes:

- Emphasizing teacher engagement in the process,
- Implementing a superintendent sign-off, and,
- Using the process for other purposes beyond the value-added initiative.

The Ohio Department of Education and partner school districts participated each year in the TSDL project's annual Collaboration Summits and shared their teacher of record work and roster verification models with other project members. They also conducted joint presentations with CELT at several national conferences and webinars regarding their TSDL efforts.