

# Washington Teacher Data System

## November 2005

### Summary

One informant noted that until 1993 Washington was best viewed as “a collection of 300 independent districts, which has limited system thinking and action around collecting student and teacher data.” While Washington State has unique teacher identifiers (the certification number) and this past year has created unique identifiers for students, the state does not have the capacity to link students with their teachers in ways that allow for value-added assessments. The state assessment program does not capture sufficient information on teachers. The certification database is very limited, with only certification level and endorsements. The certification system does not identify where a teacher is trained or the major area of the teacher’s degree. The state certification data system has Social Security numbers (SSNs) for many teachers that are provided voluntarily. The limited amount of information on teachers is collected for funding and compliance purposes.

The state teacher system includes both the staff data file (called the S-275) and the certification database, which are already linked at the department of education (called the Office of the Superintendent of Instruction, or OSPI). The higher education system (the Higher Education Coordinating Board) does not have a unified student data system; instead, it has six different student data systems. While the higher education data systems do assemble unique student records, they do not identify graduates of teacher preparation systems, and it is not clear if there is adequate information to link the higher education systems with the OSPI teacher data system. There are multiple but limited efforts to improve the state’s ability to monitor teacher quality (TQ). These efforts include the following:

- The Professional Educators Standards Board (now within the OSPI) would like more information on teachers within the state.
- The Center for Strengthening the Teacher Profession (<http://www.cstp-wa.org/>) is a local nonprofit that has commissioned several reports from Margret Plecki at the University of Washington Center for the Study of Teaching and Policy, using the state teacher data system with the support of a regional foundation (<http://depts.washington.edu/ctpmail/Washington.html#Retention>).
- The Higher Education Coordinating Board is discussing its role in supporting TQ and data needs associated with P-16 efforts.
- The University of Washington Center for the Study of Teaching and Policy has created a fast-response teacher survey system with a representative sample of teachers who agree to take three online surveys a year (<http://depts.washington.edu/ctpmail/PDFs/MethodologyApril04.pdf>). The sample is

representative in terms of experience, region, and poverty level of students taught. The project, funded with external sources, offers teachers a \$25 gift certificate and has received a very high response rate.

- The state also has created three supply and demand reports based on district surveys (<http://www.k12.wa.us/certification/pubdocs/supplydemand2004.pdf>).
- There are Teachers for a New Era (TNE) associated efforts at the University of Washington to follow graduates.

More details follow, organized into four sections: (a) linking student assessment data, (b) teacher data systems, (c) data system compatibility and availability, and (d) future plans.

### **Linking Student Assessment Data**

The state of Washington uses three different assessments depending on grade and subject: (a) the Washington Assessment of Student Learning (WASL), (b) the Iowa Tests of Basic Skills (ITBS), and (c) the Iowa Tests of Educational Development (ITED). Online state assessment data date back to 1996–97. Washington has student assessment data with unique individual student identifiers but no good way to link students to teachers. The state has unique student identifiers associated with all students and has done some longitudinal analysis at the student level. The test data has a field for “proctor” with a name. This is the only link to teachers, which is not very clean and can only be matched by name (which is very difficult and time consuming, not to mention unreliable since names change). The state also has unique teacher identifiers (certification number) and SSNs for many teachers (provided voluntarily with certification data). There are efforts in Seattle to create a value-added system.

One informant noted that some students have more than one identifier/number. However, the state has assembled matched data over time using longitudinal analyses to determine how students do on all the WASL (in Grades 4, 7, and 10) as well as how they do on the norm-referenced tests prior to those years (i.e., Grades 3, 6, and 9). State analysts have been doing this kind of work for about 5 years.

The state data file (called the S-275) is publicly available without the SSN, and a researcher should be able to create a longitudinal database using the certification number. For instance, Marge Plecki at the University of Washington has created a clean longitudinal file.

Because of federal vocational education requirements, Washington State University has been tracking high school students into higher education. The state gives the university individual records on all students in Grades 9–12, including detailed information (including SSN) on vocational education students. The university has collected at least 5 or 6 years of high school data that includes GPA, SAT scores, and ACT scores. The database has SSNs for about 50% of the students (from vocational education, SAT, and

ACT records), but it is not a random sample (in terms of geography, achievement, or other demographics).

The Higher Education Board is now trying to create a unified database of individual records, suggesting they do not have a single database with individual unit records of students in teacher preparation programs. Such a unified database would enable staff from different agencies to share data.

The Stuart Foundation is supporting the development of value-added studies in Seattle. There is some resistance to linking data. In particular, many stakeholders are anxious to know how the linked data will be used.

### **Teacher Data Systems**

Washington has a relatively standard TQ data system, an individual-unit, record-based staff data system called the S-275 and a licensure system. These systems are already linked by a unique certification number. The staff data system is used for district-level funding, with inconsistent data on schools where teachers work and virtually no information on courses taught. However, the S-275 data system does include salary, education level, and experience. The licensure data system is limited, with information on certification level and endorsements and SSNs for many but not all teachers. Not all data are automated; older certification records are on microfiche, and some older certification files do not have data on subjects (the state used to have generalist certificates that allowed teachers to teach all subjects and grades). The teacher database also is built on an old COBAL system, categorized as “a little clunky.”

The challenges are immense. As one informant noted,

Do we have teacher quality data? Depends on what you mean. We have certification and endorsements in a VAX computer file. We do not have whether people have majors in a subject area, nor do we have any digitized transcript data except for whether or not a teacher has a BA from an accredited institution. Also there is the problem with the S-275 in that you don't know what classes people teach. So we really cannot look at the data to see if a given teacher is “highly qualified” according to NCLB [the No Child Left Behind Act]. The certification database (digitized) has what certification a person has, when issued, when it expires, and some personal information. We feel good about the data on name and age; however, we do not think race and gender information are particularly clean. We do have information on if prepared out of state or here in Washington. Providing the SSN is voluntary, and I would offer a very rough guess that only about 50% have provided SSN. Some believe that some districts have inputted essentially fictional SSNs.

The state's higher education board is now trying to create a unified database of individual teacher records.

## **Data System Compatibility and Availability**

Data from the S-275 system have been provided regularly to Marge Plecki at the University of Washington, where she is creating a longitudinal database (with significant investment in data cleaning). Also, Plecki has developed a fast-response survey system with three surveys a year from a representative sample of teachers (<http://depts.washington.edu/ctpmail/PDFs/MethodologyApril04.pdf>). However, the university does not have the certification database. The Family Educational Rights and Privacy Act (FERPA) may be a barrier to public access. Additionally, there appear to be limited and halting conversations between the OSPI and the Higher Education Coordinating Board on sharing data.

As one informant noted:

Data availability can be a challenge. Generally the state is relatively conservative relative to FERPA, but they are willing to try and work out creative ways to get data access to those who want to do useful analysis. In other words, they are interested in getting free analysis if people want to help with issues around teacher quality.

In Washington there is more pressure to raise test scores, which increases the interest in possible links between TQ and test scores: “If teachers are most important to achievement, they should be able to hook up teachers with their students.” There is increased desire to see more granularity (smaller unit of analysis, i.e. individual student and teacher data) in the data.

The six public higher education institutions in Washington provide individual student-level records to the State Office of Financial Management (OFM) and the Higher Education Coordinating Board. The data cannot be merged. These data are used at OFM to do basic reporting (see <http://www.ofm.wa.gov/hied/index.htm>). The data do not allow an analyst to determine if the college student graduates, only if he or she is enrolled. Data include courses, on/off campus, and home address. The state hopes to make data richer in the next few years, and the six institutions have signed agreements to share data and to provide richer information.

## **Future Plans**

State agency leaders have shown interest in creating a more integrated data system and in supporting public access to the data. However, actual work toward that goal has not really begun. Pressure comes from P-16 issues at higher education level, need for more data by the Professional Teaching Standards Board (now part of OSPI), and nonprofits such as the Center for Strengthening the Teaching Profession (CSTP; <http://www.cstp-wa.org/>). Despite increasing public calls for more and better TQ data, there are still no plans to collect data on teacher education students and to track them through their program and into teaching. Most agency heads argue that they just do not have the staff to collect the

data. In 2004 there was a large statewide event on data, but when the state superintendent put out a huge cost estimate for improving data collection, any momentum stalled.