

The Virginia Teacher Quality Data Landscape

Approximately 1.2 million students attend, and over 88,000 teachers teach, in public schools in the Commonwealth of Virginia. The state's school system is composed of 132 operational public school divisions, with approximately 1,838 public schools. Its 15 public, and 21 private, colleges and universities with teacher education programs prepare more than 2,500 teachers each year in its traditional programs and several hundred more in alternative programs. Virginia is a strong local-control state, with school divisions having the primary responsibility for public education and postsecondary institutions having primary responsibility for preparing teachers. Similarly, student information systems operated by postsecondary institutions have been decentralized with selection, design, maintenance, and control ceded to the institution. The lack of standardization characterizes not only institutional systems, but also those used by academic departments and schools within the institutions. In addition, multiple coding structures are in place at all institutions and departments.

Some important functions are delegated to the state, however. The Virginia Department of Education establishes the standards for new and experienced teachers by setting licensure standards for teachers and by setting standards for approving teacher education programs. It also is responsible for developing standards and guidelines for new teacher induction programs in the public schools and for their partial funding by the state. The department also conducts annual studies of teacher supply and demand in the state and publishes numerous reports and statistics on the status of public education in the state. In addition, the state is responsible for implementing many of the requirements of the federal No Child Left Behind legislation and is developing a new Enrollment Management Information System (EIMS) to provide much of the needed information on student test scores.

At the postsecondary level, the Virginia State Council for Higher Education (SCHEV) has parallel responsibilities for data collection, reporting, program approval, and so on at the colleges and universities of the state. The state recently has designed a new teacher data system, which is intended to be the source of Virginia's data on "highly qualified teachers" required by the No Child Left Behind Act.

Current Database Capabilities

In July 2003 the Virginia Department of Education completed installation of a state of the art, online data system to handle transactions related to teacher licensure and employment. Funded in part by a federal Title II Teaching Quality Enhancement grant, the new Teacher Education and Licensure (TEAL) data system was the first phase in the construction of a database that was designed to inform state education policymakers on issues related to teaching quality. TEAL includes teacher demographics (gender, race, birth date), Social Security Number (SSN), college attended, college major, teaching methods preparation, PRAXIS I scores, PRAXIS II scores, license, year license issued, endorsements, number of classes taught, license renewal dates, assignment, experience (for school, district, in Virginia, and total), access to professional development, and

employment history (hire dates, etc.). The state has begun a process to create TEAL II, which will support research on teacher education and licensing and help policymakers identify which policies and practices are more likely to produce high-quality teachers in numbers sufficient to meet school staffing needs.

Future Capabilities and Use of Data

Currently in the planning stages, TEAL II is being designed to establish a comprehensive database on teacher education and its outcomes. It will be integrated with TEAL I and the state higher education (SCHEV) data warehouse. TEAL II will allow for Web-based entries and will capture students enrolled in all or any types of teacher education programs (traditional or alternative certification). The plan was for TEAL II to be implemented in four phases over 2 years—from October 2004 to October 2006—but delays in hiring the necessary staff have slowed down the start-up. A range of surveys will be used to assemble the necessary data, including those focused on student teachers, teacher education graduates, and experienced teachers (who have different years of experience). Principal ratings of new teachers (teacher education graduates) are expected to be included. Each fall and spring semester a record of each student in a teacher education program will be submitted (including GPA, major program credits, type of program being pursued, etc.). TEAL II will be designed to be integrated with the Common Core of Data and other qualitative indicators of school environment. Other plans include standard reports for each group of users, dynamic reporting, the creation of restricted use licensing protocols, and downloadable analysis files (privacy protected). The estimated cost is \$1.2 million, with the expectation of a top-level data manager to lead the effort.

For examples, questions to be addressed by the TEAL II data include the following:

1. How many persons are admitted to teacher education programs in Virginia; how many complete them; and how many completers then seek a teacher's license, either from Virginia or elsewhere? What program features and other variables appear to influence these numbers?
2. How many of those who obtain a teacher's license in Virginia obtain teaching jobs in a Virginia public school in the year following completion? What program features and other variables appear to influence these numbers? What factors influence where completers choose to teach?
3. How many program completers do not seek to teach in a Virginia public school, but instead teach in a private school in Virginia, take a nonteaching job in Virginia, or continue their education at a college or university in Virginia? For those who continue on in college, how many enroll in coursework or programs outside of education? What variables appear to influence their decisions?
4. How many program completers who enter teaching in the public schools leave their teaching positions in their first year, or in subsequent years? How many of these leavers transfer to another teaching job in Virginia, and how many leave teaching in Virginia altogether? What variables appear to explain their decisions?

- Do induction programs for new teachers and/or professional development activities for experienced teachers reduce teacher attrition?
5. How many newly trained teachers are teaching classes in which they are not “in-field?” How many newly trained teachers fail to meet the “highly qualified teacher” requirements of the No Child Left Behind Act?
 6. How many teachers from each program are effective in getting students to learn? Do individual teacher self-assessments, employer assessments, and student test scores provide adequate and consistent indicators of teaching effectiveness and student achievement?
 7. How many experienced teachers leave teaching in Virginia’s public schools each year? How do factors such as school setting, student performance and poverty levels, teaching course loads and course assignments, professional development opportunities, school working conditions, salary levels, and personal or family goals affect their decisions?
 8. In which teaching fields, schools, and geographic areas are teacher shortages most severe and most persistent? What are the most promising sources of teacher supply to address these shortages?

Despite delays, the database development for the portion of the project devoted to preparing new teachers, Teacher Pipeline, is on track. The Teacher Pipeline portion of the database contains six records in a relational database: (a) a student identity record, (b) the student entry record, (c) the continuing student record, (d) the end of program record, (e) PRAXIS scores, and (f) a contact record.

The Political Landscape

Institutions of higher education have expressed concerns, preferring that any collected data not be used as a basis for comparing programs across institutions without prior agreement. Additionally, colleges and universities have asked that the data and data analyses be reviewed and verified for accuracy by the respective institutions and programs to whom those results pertain prior to public dissemination. In addition, in recent public meetings, the higher education community has noted that TEAL II data collection and analyses should account for differences in institutions of higher education (size, finances, geography, mission, and the like). Finally, the data system must respect the need for confidentiality as it pertains to personnel evaluations and similar information.