

The eScholar Complete Data Warehouse® for PK-12 (CDW-PK12) is a commercial off-the-shelf (COTS) solution enabling state and local education agencies to integrate disparate enterprise-wide data into a centralized data store, allowing longitudinal and cross-departmental analysis to enable data-driven decision making. Leveraging the most comprehensive education data model available in a COTS solution, CDW-PK12 unlocks the value of transactional data so education agencies can spot trends and gain insight into what works when educating students.

Our data model is always evolving to meet the needs of our customers. What follows is a brief description of data categories currently available for load to the data warehouse.

### **1. Student Demographics and Attributes**

Track student attributes including gender, race/ethnicity, economic status, address, contact and guardian information, primary language, challenges, LEP participation, weighted and un-weighted GPA. Mappings to the US Department of Education's NCES defined data elements are included. Snapshots of student demographics can be taken at crucial points to capture the composition of the student body at that point. A snapshot of the students and their demographics can also be captured in association with the administration of an assessment. This feature provides the ability to understand differences in the makeup of the student body at different points during a school year.

### **2. Student Contacts**

Store contact information for a student's parents, guardians, or other relations. Includes attributes for name, relationship, phone numbers, email address, language, and authorization code.

### **3. Course and Class Attributes**

Track attributes of courses and sections offered including subject, department, credits, honors indicator, course type, grade type, and course length.

### **4. Course Instructor**

For any point in time, track which instructors teach which classes. These data are a key component in analyzing relationships among teachers and students, and particularly in analyzing student performance and outcomes within the context of teachers and their qualifications.

### **5. Staff Assignment**

For any point in time, track all staff assignments, including assignments of staff members to locations outside their home districts. Elements include assignment code, assignment location, assignment job code, assignment room and site, funding source, and more.

## **6. Student Attendance**

Track daily student attendance at each location. Define attendance codes representing both positive and negative attendance such as tardy, AM only, left early, unexcused absence, field trip etc. Summary attendance, including days present, days absent, days absent without excuse, days enrolled, days tardy, and FTE percent, may also be tracked for any range of dates.

## **7. Staff Attendance**

Track staff attendance as well as personal time earned, used, and total accrued both daily and for any date range. Summary attendance data may also be recorded, reflecting aggregate time earned, used, and accrued by all staff at a location for any date range.

## **8. Student Course Attendance**

Track student course attendance including course periods that repeat daily and course blocks with irregular timing. This level of detail is usually captured in middle through high school.

## **9. Assessments and Assessment Results**

Within a single domain of dimension and fact tables, store information for any number of tests – classroom tests and quizzes, exams, state and national high-stakes tests (such as SAT, ACT, MAP, Terranova, etc.) – along with individual student results. Store attributes of a test such as test name, version, components (subtests, clusters or learning standards, skills or content strands, and items or questions), achievement levels and their score ranges, and accommodations and modifications available. Store the corresponding state standard of each test component. Track individual student results for each component of each test and test date, including multiple types of scores (raw, scaled, percent, and alpha scores, local and national percentiles and stanines, norm curve equivalents, standard performance index, standard performance level), status (tested, not tested, invalid, etc.), achievement level, and accommodations and modifications used. Storing test data in a single set of tables enables sophisticated longitudinal analysis across time, across tests, for individuals or cohorts, within or across achievement levels or state standards, and within the context of other educational performance measures or student activity.

## **10. Student Class Grades**

Track any course grade for a student in a class by date. This design allows for reporting on the intersection of student, class grade, course, section, and teacher.

## **11. Student Credit and GPA**

Track both academic term and cumulative credits and GPA for each student as he/she progresses through an academic career. Using distinct codes, clients define the components of credits and GPA to be collected, such as total, remedial, non-remedial, or as they relate to specific programs, courses, groups of courses, or tracks of study.

## **12. Course Enrollment**

Track student enrollment and withdrawal within a course and section. Enrollment codes may represent various types of enrollment or withdrawal and may be grouped into categories representing broader types of enrollment or withdrawal.

## **13. School Enrollment**

Track school enrollment (entry and exit) at the individual student level. Entry and exit codes may identify various reasons for enrollment or withdrawal and may be grouped into categories representing, for example, transfer-in enrollment or dropout withdrawal. By analyzing patterns in School Enrollment, a district can highlight mobility patterns and dropout rates when identifying academic interventions.

## **14. Discipline Incidents**

Track disciplinary incidents including an unlimited number of offenders, infractions, and victims per incident, as well as attributes of incidents and infractions including involvement of weapons, police, and much more.

## **15. Disciplinary Action**

Track disciplinary action per incident per offender, including suspension or expulsion, status of hearings and appeals, time elements and parental involvement. This is used to review the effectiveness of types of responses in reducing recidivism, as well as for determining patterns for dealing with particular types of infractions within the district, a school, classroom, or by individual student.

## **16. Student Groups and Extracurricular Involvement**

Define and track an unlimited number of groups of individual students based on a wide variety of criteria. Examples may include cohorts, students participating in a specific activity, a shared interest or experience. A compelling feature of this domain is the ability to support historical analyses based on current definitions of the groups. The capacity to track student participation in extracurricular and other activities allows analysis against academic performance to find correlations.

## **17. Title I Programs**

Track a variety of services that Students may be receiving under Title I. The details of Title I program eligibility and participation can be recorded using the Program Qualification and Program Participation domains.

## **18. Transportation**

Transportation data includes pickup and drop-off locations for individual students. This information is often used to determine co-occurrence of discipline and attendance issues.

## 19. Food Service, Medicaid and Household

Track student membership within a household (regardless of name) and a student's degree of participation in lunch and medical programs. This information is used to analyze the effectiveness of specific programs for students in particular socioeconomic and family situations.

## 20. Special Education Students

Track details specific to special education students such as disabilities, placement type, last IEP date, last evaluation date, service level, periodic review dates, special education entry and exit dates and reasons, and much more.

## 21. Special Education Services

Track each special education service received by a student as well as the details of each service. Elements include Service Code, Placement Type, Compliance Date, Start and End Dates of service, Service Provider Name, and much more.

## 22. Special Education Events

Define events and event sequences, and track the details of each event including Event Type Code, Event Reasons, Event Status and Outcome Codes, relevant dates, and more.

## 23. Location Attributes and Measures

Attributes and measures of a location, such as AYP Status and Graduation Rate, can be recorded on an annual basis. Data disaggregated by various subgroups can be easily stored for reporting to state and federal agencies.

## 24. District Attributes and Measures

Attributes and measures of the district, such as AYP Status and Graduation Rate, can be recorded on an annual basis. As with location level data, data disaggregated by various subgroups at the district level can be easily stored for reporting to state and federal agencies.

## 25. District and Location Groups

Define an unlimited number of groups by which districts or locations may be defined and associate districts or locations to those groups. A group may identify districts or locations as, for example, **Large**, **Urban**, or **Rural**. The ability to group districts and schools enables analysis of those groups in the context of student or teacher performance, funding, or other data.

## 26. Programs

Define all programs available and record attributes such as description, type, state program code, accreditation, and category rollups. Example programs may include Reading programs, Enrichment programs, Bilingual programs, LEP/ELL programs, and Special Education programs. Use the Program Qualification and Program Participation domains to track student eligibility for and participation in programs. The ability to track a program provides a powerful

mechanism to evaluate and compare the effectiveness of educational programs and to determine how well school programs are meeting the needs of particular sub-populations. The Programs component also provides the foundation to analyze entry and exit from programs and the reasons for such activity.

### **27. Program Qualification**

Track student eligibility for and referral to programs. Elements include qualification date, type, and comments.

### **28. Program Participation**

Track information on student participation in programs. Elements include begin and end dates, program intensity, entry and exit reasons, and more.

### **29. Staff Demographics and Attributes**

Track staff member attributes including gender, race/ethnicity, job class codes, address, contact information, tenure date, years of experience, highest degree earned, and much more. Mappings to the US Department of Education's NCES defined data elements are included. Snapshots of staff demographics can be taken at crucial points to capture the composition of the staff at that point. This feature provides the ability to understand differences in the makeup of the personnel pool at different points during a school year.

### **30. Staff Professional Development**

Define any number of professional development activities, such as mentoring, seminars, and workshops, and track involvement of staff in those activities including start and end dates, withdrawal date, participation level, hours, credits, and more.

### **31. Staff Certifications**

Track Staff certifications, course certification requirements, and staff assignment certification requirements. Each certification achieved by a staff member can be recorded. Additionally, information can be tracked on the specific combination of Certification Types, Certification Areas, and Certification Levels a Staff member must have in order to teach specific Courses. There may be different combinations defined to meet the Course Requirements and multiple Types, Areas and/or Levels may be required in combination for a particular Course. Finally, information can be tracked on the specific combination of Certification Types, Certification Areas, and Certification Levels a Staff member must have in order to hold a specific Assignment or Position. There may be different combinations defined to meet the Assignment Requirements and multiple Types, Areas and/or Levels may be required in combination for a particular Assignment. The Staff Certification data collected can assist a school district in addressing the 'No Child Left Behind' requirement for highly qualified teachers.

### **32. Post School Activity**

Track information about students after they have left the PK-12 system – through graduation, dropping out, or reaching the maximum age. This domain includes the ability to store information about student enrollment in and degrees earned from higher education institutions as may be provided to education agencies who subscribe to the National Student Clearinghouse®. Such information can be important in analyzing long term success of students within the context of their PK-12 experience.

### **33. Budgets and Spending by Account, Department and Location**

Track proposed and approved budget activity by department, fund source, program, account, and date. General ledger entries can be summarized by department, fund source, program, account, and date and linked to student performance indicators to determine program effectiveness and efficiency.

### **34. Elementary School Report Cards**

Elementary School Report Card data is a valuable component of a student's profile and includes measurements in a broad set of categories. The CDW-PK12 solution provides the capability to store a rich set of this data and tie it to a student's record for reference and analysis throughout a student's career.

### **35. State Attributes and Measures**

The CDW-PK12 solution records state attributes, such as the Chief State School Officer and the State AYP Status. This data can be easily stored on an annual basis for reporting to state and federal agencies. The capability of storing factual as well as demographic data greatly expands analysis of school and student data.

### **36. Survey**

The CDW-PK12 solution provides the capability to gather and analyze a wide variety of anonymous Survey data. Surveys provide you the tool to track your longitudinal success against the public's perception of your schools.

### **37. Career and Technical Education**

Track data related to the Carl D. Perkins Vocational and Technical Education Act of 2006 (Perkins IV). Record information about student participation in CTE education including Classification of Instructional Program (CIP) information, industry credentials earned, statuses, program completion, and learning components,

### **38. Facilities**

CDW-PK12 solution provides the capability to store facilities-related data, including building and room attributes building and room components, condition, history, renovation dates, and use. This information can be powerful in analyzing student performance within the context of facility age, environmental conditions, or components.

## Why eScholar?

- Proven successful statewide solutions for 11 SEAs, supporting over 3,500 school districts and over 12 million students across the country.
- Focused exclusively on education data management since 1997.
- Comprehensive services, training and support programs to ensure customer success.
- An established, active user community allowing access to best practices, experience, and support from peers nationwide.

Today, eScholar products have become the recognized standards in the student and staff identification and educational data warehousing markets. The eScholar Complete Data Warehouse® solution has become an indispensable solution to local and state education agencies for integrating and managing the vast quantity of information they collect to improve decision-making, instruction, and learning. For more information, contact Sales at [sales@escholar.com](mailto:sales@escholar.com) or (877) 328-2969.

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