

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, eScholar 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 demographic attributes including birth date, gender, race/ethnicity, economic status, address, primary language, challenges, LEP status, household information, and much more. 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. Standardized Assessments & Results

Within a single domain of dimension and fact tables, store information for any number of tests – classroom tests and quizzes, exams, benchmark and formative assessments, state and national high-stakes tests (such as SAT, ACT, MAP, DIBELS, 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 available accommodations and modifications. 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, teacher information, program participation, discipline information, student activity, and more.

4. Academic Standards

Track academic standards and the intersection of academic standards, assessments, and courses. When analyzed in the context of student performance, this information can reveal specific areas of academic focus to improve student outcomes. When analyzed in conjunction with programs and services data, it can suggest adjustments in placement to improve outcomes.

5. Assessment-to-Academic Standards Linkage

Track the intersection of academic standards with assessments. When analyzed in the context of student performance, this information can reveal specific areas of academic focus to improve student outcomes. When analyzed in conjunction with programs, services, and other data, it can suggest adjustments in placement to improve outcomes.

6. Course-to-Academic Standards Linkage

Track the intersection of academic standards with courses. When analyzed in the context of student performance, this information can reveal specific areas of academic focus to improve student outcomes. When analyzed in conjunction with programs, services, and other data, it can suggest adjustments in placement to improve outcomes.

7. Assessment-to-Course Linkage

Track the intersection of assessments with courses. When analyzed in the context of student performance, this information can reveal specific areas of academic focus to improve student outcomes. When analyzed in conjunction with programs and services data, it can suggest adjustments in placement to improve outcomes.

8. Student Daily & Summary Attendance

Track daily student attendance at each location. Define attendance codes representing both positive and negative attendance such as tardy, AM only, left early, excused or 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.

9. 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.

10. Student Schedule Period Attendance

Track student attendance for each scheduled period of the day. This may be particularly useful in understanding which students are missing portions of a class that meets across multiple periods, such as a science class with a lab component that together span two schedule periods.

11. School Enrollment Entry & Exit

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.

12. Graduation Status

Track information related to a student's progress toward and status of graduation, including GPA calculations vs. requirements, graduation points and weighted points accumulated, core courses completed, expected graduation timeframe, success of appeals, and planned post-graduation activity such as college or military.

13. National Student Clearinghouse® Data

Store information about student enrollment in and degrees earned from higher education institutions as 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.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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 (HQT).

19. Staff Evaluation

Define any number of evaluation criteria and their rating mechanisms. For any staff member, for any reporting period, track the evaluation rating for any criteria as well as the evaluator ID and comments. Staff Evaluation data collected can support efforts by the U.S. Department of Education and many state education agencies and legislatures in emphasizing the importance of evaluating staff members within the context of effective educational practices.

20. Student-Teacher-Course Linkage

Track the association of each student to each staff member within a class. Include information about when the relationship starts and ends, potential and actual instructional time, total planned class time, and a weighted measure of the responsibility that staff member has for that student in that class. This data may be critical to certain elements of the staff evaluation process within the context of student performance.

21. Course and Class Attributes

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

22. Class Instructor Attributes

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.

23. Student Class Entry & Exit

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.

24. 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.

25. Student Credits 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.

26. Elementary School Report Cards

Store a rich set of Elementary School Report Card data and tie it to a student's record for reference and analysis throughout a student's career. This data is a valuable component of a student's profile and includes measurements in a broad set of categories. Post

27. School Activity

Track information about students after they have left the PK-12 system – through graduation, dropping out, or reaching the maximum age. This data set includes the ability to track post-graduation military service.

28. Programs

Track programs offered, recording attributes such as description, type (such as general or special education), state program or service code, accreditation, and category rollups. 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 student populations.

29. Program Eligibility & Participation

Track each student's participation in each program and/or service, including start and end dates, frequency, and duration. Use the Program Qualification and Program Participation domains to track student eligibility for and participation in programs. When integrated into analysis of student performance over time, this information can provide insight into which programs and services work best for which students, as well as where future funding should be applied to best serve student populations.

30. Program Sections

Track information on various sections of a program, including room assignment, hours per day, section size, and funds paid to provider. Also track each student and staff member associated with each section.

31. Program Services & Activities

Track information on any educational services, associate a service with a program, and track each student's involvement in each service, including start and end dates, frequency, and

duration of service. When integrated into analysis of student performance over time, this information can provide insight into which services work best for which students, as well as where future funding should be applied to best serve student populations.

32. 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 and CTE Clusters, industry credentials earned, statuses, program completion, and learning components. The flexible data model design allows customers to track CTE student information at varying grains depending on a customer's existing operational capabilities. For example, customers may track CTE student-level participation either to the CTE Cluster level or the more granular CIP level.

33. Early Childhood Attributes

Track point-in-time information specific to early childhood students, including developmental screening and health assessment dates. Track program attributes, participation, and information about transitions from early childhood programs as well as Special Education program referrals.

34. Migrant Student Attributes

Track information specific to migrant students, including information about qualifying moves and eligibility expiration date.

35. Student Education Barriers

Define and track any number of barriers to a student's education that may exist. This information is useful in understanding all of the environmental and other factors that may influence educational outcomes, and is also helpful in complying with certain state and federal reporting requirements including those of CSPR.

36. 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.

37. 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.

38. 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.

39. 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.

40. 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.

41. Discipline Incidents & Referral

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.

42. Discipline Responses, Suspensions, Expulsions

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.

43. State Attributes and Measures

Attributes and measures of the state, such as the Chief State School Officer, the State AYP Status, or any other measure or attribute (counts, amounts, percents by demographic subgroup, etc.), can be stored to reflect any point in time. Data disaggregated by various subgroups can be easily stored for reporting to state and federal agencies.

44. District Attributes and Measures

Attributes and measures of the district, such as AYP Status and Graduation Rate, can be stored to reflect any point in time. Data disaggregated by various subgroups at the district level can be easily stored for reporting to state and federal agencies.

45. Location Attributes and Measures

Attributes and measures of a location, such as AYP Status and Graduation Rate, can be stored to reflect any point in time. As with district level data, data disaggregated by various subgroups at the location level can be easily stored for reporting to state and federal agencies.

46. Student Attributes and Measures

Attributes and measures of each student can be stored to reflect any point in time. As with State, District, and Location measures and attributes, this set of dimension and fact tables affords clients the flexibility to collect new information at the correct grain as requirements evolve.

47. 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.

48. Budgeted and Actual Spending by Account, Department and Location

Track proposed and approved budget activity and actual spending 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 staff and student performance indicators to determine program effectiveness and efficiency.

49. Facilities

Track 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.

50. Survey

Collect 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.

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 or (877) 328-2969.