

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 drive 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 demographic attributes including birth date, gender, race/ethnicity, economic status, address, primary language, LEP status, household information, and much more. Mappings to the US Department of Education's Common Education Data Standards (CEDS) 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 that may not necessarily be family. Includes attributes for name, relationship, address, phone numbers, email address, language, and authorization code. For each student, identify primary contact, emergency contact, and contact restrictions.

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 identify 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. The eScholar Complete Data Warehouse® now ships with embedded Common Core State Standards data in support of the Common Core State Standards Initiative.

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 identify 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 identify 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 identify 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. Assessment-to-Class Linkage

Track the intersection of assessments with classes (course + section). When analyzed in the context of student performance, this information can identify 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.

9. 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.

10. 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.

11. 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.

12. 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 targeting academic interventions.

13. Cohort Groups

Define any number of cohort groups and track association of students to each cohort group over time. This data may be useful in many applications, including tracking graduation cohorts.

14. 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.

15. 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.

16. 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 CEDS-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.

17. 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.

18. 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.

19. 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.

20. 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.

21. Staff Degrees

Track the history of degrees earned by each staff member over the course of his/her academic career. This information may be useful in many analyses, including HQT and payroll or salary analyses.

22. Staff Evaluation

Both the U.S. Department of Education and many state education agencies and legislatures are more than ever emphasizing the importance of evaluating staff members within the context of effective educational practices. Our Staff Evaluation domain allows customers to define any number of evaluation protocols, criteria, and rating mechanisms. For any staff member, track an unlimited number of evaluations and the details of each. When necessary, track each classroom in which an evaluation took place.

23. Staff Tenure

Track staff members' progress as they pursue tenure in any number of tenure areas, and track the history of tenure earned over time.

24. 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.

25. Student-Teacher-Assessment Linkage

Track individual staff-student relationships within the context of an assessment subtest, including the staff member's weighted responsibility for the student's test result. This data may be important to the staff evaluation process.

26. Course and Class Attributes

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

27. 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.

28. Student Class 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.

29. 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.

30. 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.

31. Student Course Transcript

Track attributes of each student's course transcript, including outcome and credits attempted and earned, for any number of marking periods, at any number of points in time.

32. Student Academic Plans

Track attributes of each student's individual academic plan(s) at any number of points in time, over the course of a student's academic career.

33. Student Awards

Track any and all awards (certificates, diplomas, commendations, trophies, honors, etc.) conferred upon students over time. The solution allows customers to define the awards to be tracked, and then record the receipt of awards by students on particular dates.

34. Student Employment

Track student employment by NAICS code and start / end dates.

35. 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.

36. 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 data set includes the ability to track post-graduation military service.

37. Programs

Track programs offered, recording attributes such as description, type (such as general or special education), state program or service code, accreditation, program sponsor, 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.

38. 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 areas 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.

39. 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.

40. Program Services & Activities

Track information on any educational services including funding source, 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.

41. 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.

42. 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.

43. Migrant Student Attributes

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

44. 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.

45. 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.

46. 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.

47. Special Education Events

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

48. 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 areas.

49. 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 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.

50. 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.

51. 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.

52. State Attributes and Measures

Store information about state agencies such as names, addresses, and phone numbers, as well as website URL, AYP and other statuses, and Chief State School Officer information. Separately, define and track an unlimited number of measures – counts, amounts, or percentages – or indicators. Leading-edge design methodologies give clients the power to define any kind of measure or indicator that needs to be tracked – regional socioeconomic, demographic, or other measures or indicators broken out by any number of regions or other categories, for instance, but there is no limit to the possibilities. Our State-of-the-art design provides the flexibility to define additional measures and indicators to be collected as requirements evolve.

53. District Attributes and Measures

Store information about school districts such as names, addresses, and phone numbers, as well as website URL, and AYP and other statuses. Separately, define and track an unlimited number of measures – counts, amounts, or percentages – or indicators. Leading-edge design methodologies give clients the power to define any kind of measure or indicator that needs to be

tracked – socioeconomic, demographic, or other measures or indicators, for instance, or graduation rates by demographic or other subgroup, but there is no limit to the possibilities. Our State-of-the-art design provides the flexibility to define additional measures and indicators to be collected as requirements evolve.

54. Location Attributes and Measures

Store information about schools such as names, addresses, and phone numbers, as well as website URL, and AYP and other statuses. Separately, define and track an unlimited number of measures – counts, amounts, or percentages – or indicators. Leading-edge design methodologies give clients the power to define any kind of measure or indicator that needs to be tracked – socioeconomic, demographic, or other measures or indicators, for instance, or graduation rates by demographic or other subgroup, but there is no limit to the possibilities. Our State-of-the-art design provides the flexibility to define additional measures and indicators to be collected as requirements evolve.

55. 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 allows customers to define any kind of measure or indicator that needs to be tracked, giving them the flexibility to collect new information at the correct grain as requirements evolve.

56. Staff Attributes and Measures

Attributes and measures of each staff member can be stored to reflect any point in time. As with State, District, Location, and Student measures and attributes, this set of dimension and fact tables allows customers to define any kind of measure or indicator that needs to be tracked, giving them the flexibility to collect new information at the correct grain as requirements evolve.

57. 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**, or may group them into various **judicial districts**. The ability to group districts and schools enables analysis and comparison of “similar” districts and locations within the context of student or teacher performance, funding, or other data.

58. 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.

59. Charter Transactions

Track payment transactions between Charter School entities and Local Education Agencies.

60. 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.

61. Survey

Track 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. An infinite number of surveys, participants, questions, and responses and response types can be stored. Customers have used this area to collect survey data ranging from anonymous satisfaction surveys to surveys of CTE student post-school activity more granular than that required by Perkins IV.

62. Transportation

Track vehicle and route information including License Plate Number, VIN, various component manufacturer information, capacity, route types, road types and mileage components. This information may be used, for example, to create efficiencies in route planning and fleet management.

Why eScholar?

With over 18 years of experience exclusively serving the data needs of the education field, eScholar combines data expertise, educator best practices and user experience into its solutions. eScholar provides data warehouse, unique identifier management and collaborative goal planning solutions which enable 13 state and federal education agencies and 5,000 districts to better serve the needs of over 20 million students across the US.

eScholar is the leading innovator in education data solutions that support personalized education. eScholar's award-winning products simplify reporting requirements, streamline data management and transform the way educators use data to help Pre-K to postsecondary students achieve their own individual success.

For more information, contact Sales at sales@escholar.com or (877) 328-2969.

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CDW-PK12 Data Categories v17 fs20150909