

Types of K-12 School Data



The use of data is critical to improving student outcomes.

Educators are increasingly using multiple sources of data in their daily work, at all levels – from the LEA/district level to an individual school, grade, subject, student group, and/or classroom.

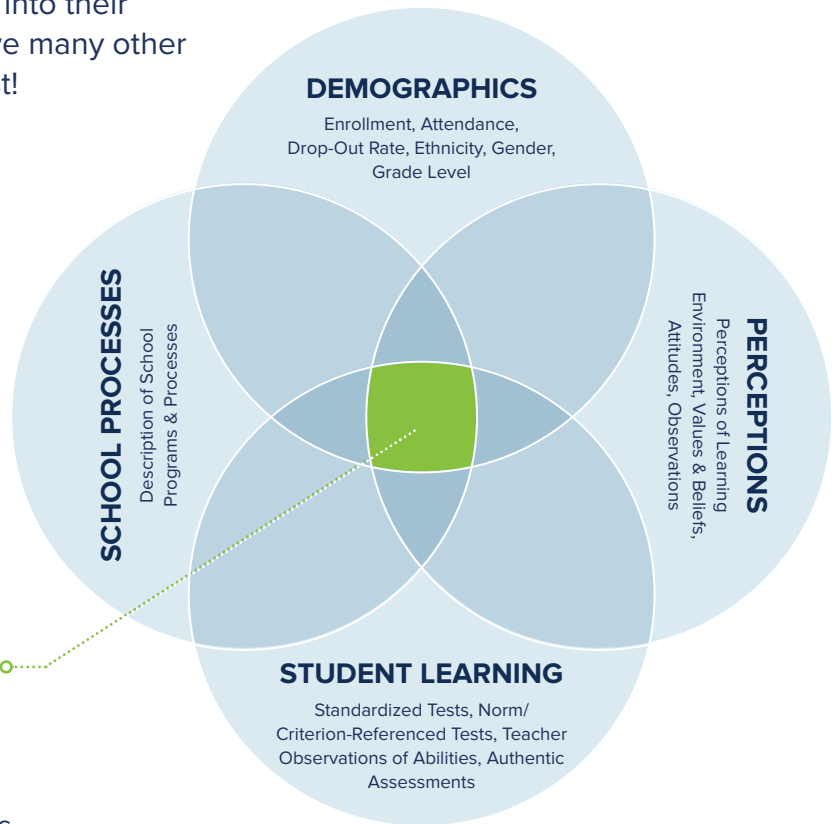
This document explores the primary types of K-12 data that are useful and often available in schools at the elementary, middle, and high school levels. Examples are offered to spark ideas for K-12 data sources that educators can bring into their work in schools. Schools and districts may have many other examples, including local data to add to the list!

The Power of Combination

Victoria Bernhardt describes [4 types of data](#) to consider:

1. **Student learning** (benchmark, diagnostic, summative, formative).
2. **Demographic** (who we are),
3. **Perception** (beliefs and values), and
4. **School processes** (how we do school)

These four types of K-12 data are differentiated in terms of their definition and purpose. **Using them in combination is the key** to using data effectively to address issues, solve problems, and answer questions! Combining sources of data can be powerful and possibly identify data patterns, trends and areas for focus. For example, looking at student outcome data (e.g. state assessment data, local assessment data) in combination with demographic data provides a much fuller picture than simply looking at state assessment proficiency scores alone.



Four Types of Student Data

Bernhardt, V. L., (1998, March). Invited Monograph No. 4. CASCD https://nces.ed.gov/pubs2007/curriculum/pdf/multiple_measures.pdf

SOURCES OF DATA *for the* Elementary Level

SCHOOL PROCESS DATA

We can capture **what we're doing** with data such as:

- Behavior/discipline data (SWIS) by student group
- Grade-level configuration data, historical and present
- MTSS data
- Observation/Walkthrough data
- School schedules
- Staff recruitment/retention data
- Suspension/expulsion data
- Teacher evaluation data (Act 13 disaggregated data)

STUDENT LEARNING DATA

We can measure **what we're achieving** with four types of student assessments:

- Benchmark Assessments** such as Acadience®, aimsweb®, DIBELS® 8, Firefly from PDE, MAP®, STAR, etc.
- Summative Assessments** such as:
 - ACCESS for ELLs, chapter/unit tests, PASA, performance tasks, PSSA
 - PVAAS growth data
 - PVAAS student-level projection data (future performance)
- Diagnostic Assessments** such as CDT from PDE, CORE Phonics Survey, Exact Path, i-Ready®, iXL, Heggerty Phonemic Awareness screening assessment
- Formative Assessments** such as
 - Classroom tools: Bellringers, digital tools (Kahoot, Padlet, etc.), Do Now, exit tickets, KWL, pretests, quizzes, student conferencing
 - Progress monitoring probes in Acadience®, aimsweb®, DIBELS® 8, Writing CBM

DEMOGRAPHIC DATA

We can learn about **who we are** with data that describes:

- Attendance by student group
- Data on home languages
- % Enrollment by student groups (Economically Disadvantaged, English Learner, Special Education, Foster Care, Homeless, Military Connected)
- % Enrollment by gender
- % Enrollment by race/ethnicity (American Indian/Alaskan Native, Asian, Black, Native Hawaiian or other Pacific Islander, Hispanic, White, 2 or more Races)
- Other student groups: Title 1, Title 3, EL 1st year, Foreign Exchange, Enrolled Full Year, Migrant, GIEP, Service Plan 504

Use all four types of data in balance for a more complete picture.

PERCEPTION DATA

We can understand **what we believe** with data such as:

- Locally developed surveys for teachers, families, students, etc. measuring school satisfaction, climate, social/emotional, and more
- PA Youth Survey (PAYS)
- PBIS Surveys for students, teachers, administrator, faculty and families
- Panorama Teacher Surveys
- Panorama Student Surveys
- Title I Parent surveys

What other data sources are available to you?

Note: Examples only. Not an all-inclusive list.

SOURCES OF DATA *for the* Middle School Level

SCHOOL PROCESS DATA

We can capture **what we're doing** with data such as:

- Behavior/discipline data (SWIS) by student group
- Grade level configuration data, historical and present
- MTSS data
- Observation/Walkthrough data
- School schedules
- Staff recruitment/teacher certification data
- Staff retention data
- Suspension/expulsion data
- Teacher evaluation data (Act 13 disaggregated data)

STUDENT LEARNING DATA

We can measure **what we're achieving** with four types of student assessments:

- Benchmark Assessments** such as Acadience®, aimsweb®, Firefly from PDE, DIBELS® 8, MAP®, STAR
- Summative Assessments** such as:
 - ACCESS for ELLs, chapter/unit tests, Keystone Algebra, mid-term/final exams, PASA, performance tasks, PSSA
 - PVAAS growth data
 - PVAAS student-level projection data (future performance)
- Diagnostic Assessments** such as CDT from PDE, Exact Path, i-Ready®, iXL, STAR
- Formative Assessments** such as:
 - Classroom tools: Bellringers, digital tools (Kahoot, Padlet, etc.), Do Now, exit tickets, KWL, pretests, quizzes, student conferencing
 - Standardized measures: Progress monitoring probes in Acadience®, aimsweb®, DIBELS® 8, Writing CBM

DEMOGRAPHIC DATA

We can learn about **who we are** with data that describes:

- Attendance by student group
- Data on home languages
- % Enrollment by student groups (Economically Disadvantaged, English Learner, Special Education, Foster Care, Homeless, Military Connected)
- % Enrollment by gender (Male, Female)
- % Enrollment by race/ethnicity (American Indian/Alaskan Native, Asian, Black, Native Hawaiian or other Pacific Islander, Hispanic, White, 2 or more Races)
- Other student groups: Title 1, Title 3, EL 1st year, Foreign Exchange, Enrolled Full Year, Migrant, GIEP, Service Plan 504

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We can understand **what we believe** with data such as:

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- PA Youth Survey (PAYS)
- PBIS Surveys for students, teachers, administrators, faculty and families
- Panorama Teacher Surveys
- Panorama Student Surveys
- Title I Parent surveys

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SOURCES OF DATA *for the* High School Level

SCHOOL PROCESS DATA

We can capture **what we're doing** with data such as:

- AP course data (courses offered; enrollment, exam participation rates)
- Behavior/discipline data (SWIS) by student group
- Grade level configuration data, historical and present
- MTSS data
- Observation/Walkthrough data
- % Graduation data
- School schedules
- Staff recruitment/retention data
- Suspension/expulsion data
- Teacher evaluation data (Act 13 disaggregated data)

STUDENT LEARNING DATA

We can measure **what we're achieving** with four types of student assessments:

- | | |
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| <ul style="list-style-type: none"><input type="checkbox"/> Benchmark Assessments such as aimsweb®, Firefly from PDE, MAP®, STAR<input type="checkbox"/> Summative Assessments such as:<ul style="list-style-type: none">• ACCESS for ELLs, AP Exam results, chapter/unit tests, mid-term/final exams, Keystone Algebra I, Keystone Biology, Keystone English Literature, PASA, performance tasks• PVAAS student level projection data (future performance) | <ul style="list-style-type: none"><input type="checkbox"/> Diagnostic Assessments such as CDT from PDE, Exact Path, i-Ready®, iXL, STAR<input type="checkbox"/> Formative Assessments such as:<ul style="list-style-type: none">• Classroom tools: Bellringers, digital tools (Kahoot, Padlet, etc.), Do Now, exit tickets, KWL, pretests, quizzes, student conferencing• Standardized measures: Progress monitoring probes in aimsweb®, STAR |
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DEMOGRAPHIC DATA

We can learn about **who we are** with data that describes:

- Attendance by student group
- Data on home languages
- % Dual enrollment
- % Enrollment by student groups (Economically Disadvantaged, English Learner, Special Education, Foster Care, Homeless, Military Connected)
- % Enrollment by gender (Male, Female)
- % Enrollment by race/ethnicity (American Indian/Alaskan Native, Asian, Black, Native Hawaiian or other Pacific Islander, Hispanic, White, 2 or more Races)
- Other student groups: Title 1, Title 3, EL 1st year, Foreign Exchange, Enrolled Full Year, Migrant, GIEP, Service Plan 504

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PERCEPTION DATA

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