



# Office of Learning and Instruction

## Data & Accountability: Business Intelligence Tools

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# Supporting Amphitheater's Needs

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## Recognized Need for Dashboard and Reporting

Limits to “off the shelf” products in capability, flexibility, and cost.

## Culture of Information and Action

Cognia Accreditation process (2019) revealed a need for improved information and action (DRIP).

## Support Data Based Decision Making

Empower school leaders to plan strategically, set and monitor SMART goals, and evaluate effectiveness at all levels: District → School → Student.

## Data Strategy

Adds value towards realizing potential in student achievement and learning.  
Centralizes our data as a “single source of truth”.

# What Is Business Intelligence (BI)?

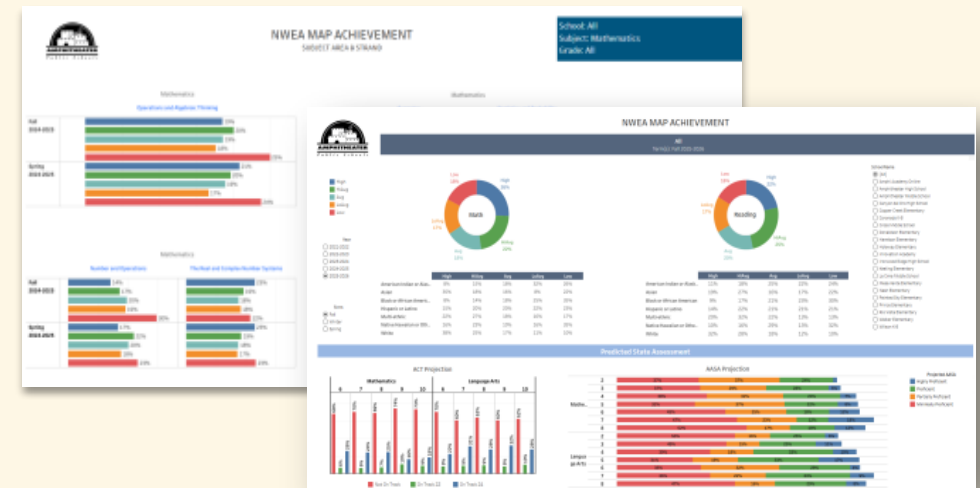
BI provides clarity and can improve student outcomes by optimizing resources and enhancing transparency.

## Definition of BI

Business Intelligence involves tools and processes that convert raw data into actionable insights for organizations.

## BI in Education

In education, it helps analyze attendance, performance trends, enrollment changes, almost anything, and supports data-driven decision making in these areas.



## BI as a Dashboard

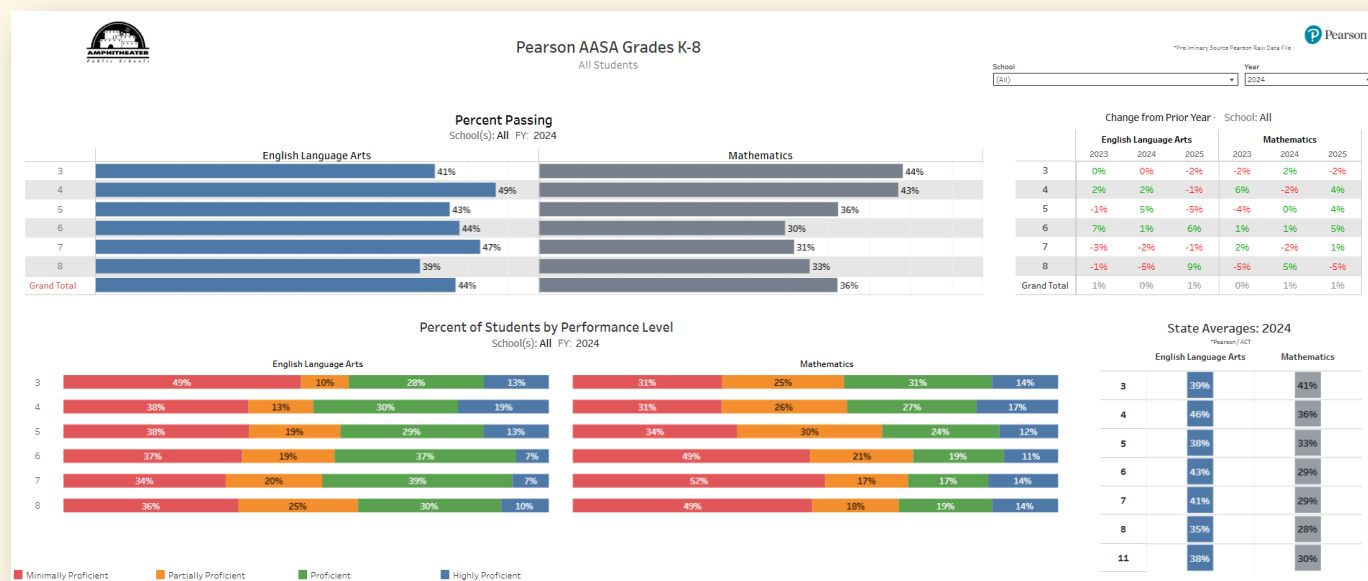
BI functions like a car dashboard, showing performance and alerting users to issues needing attention.

# Tableau Business Intelligence Tool



Tableau is a business intelligence tool that transforms raw data into meaningful visual insights.

“Helps people see, understand and act on data.”



## Flexibility & Broad Application

Not just for dashboards, it also supports advanced calculations and statistical capabilities.

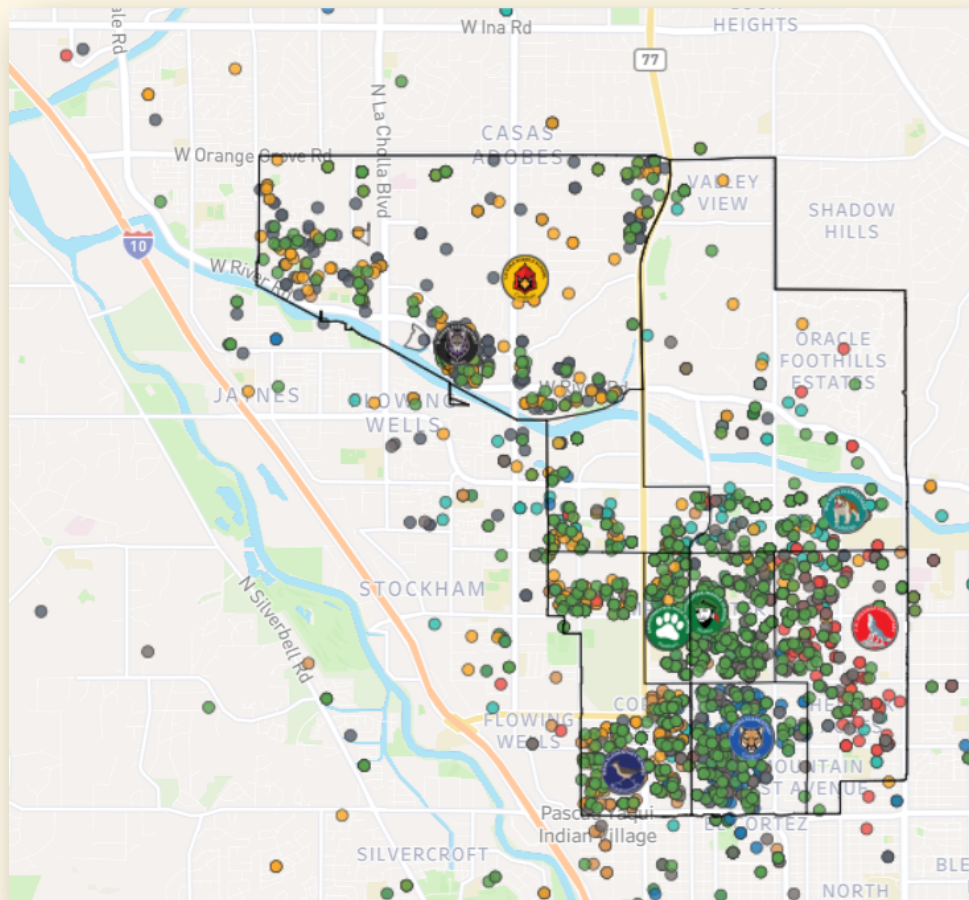
## Value

Improves access and leverages existing data for improved decision-making and efficiency.





# Benefits of Business Intelligence



## Centralized Real-Time Data

Centralized, real-time data for informed decision-making by stakeholders.

## Interactive Dashboards

Dashboards offer district, school, and student-level views, increasing transparency, clarity, and accountability across the district.

## Student Level

Ability to provide real time, student level data that can be accessed and acted upon.

## Strategic Planning and Intervention

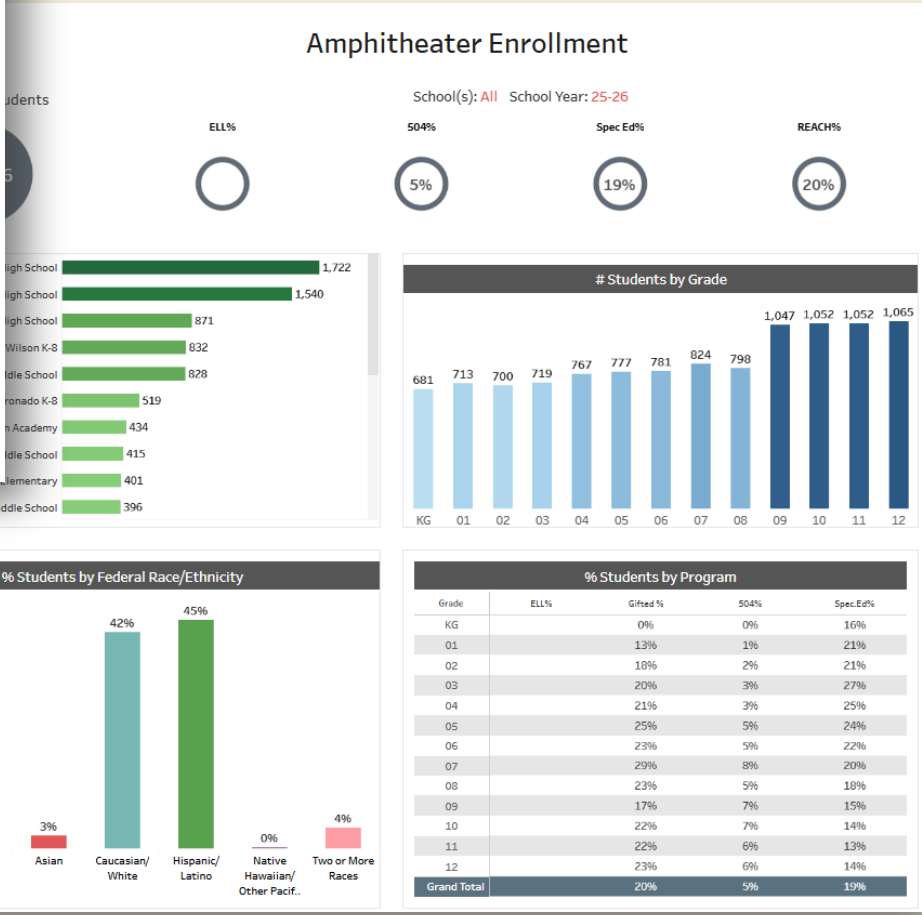
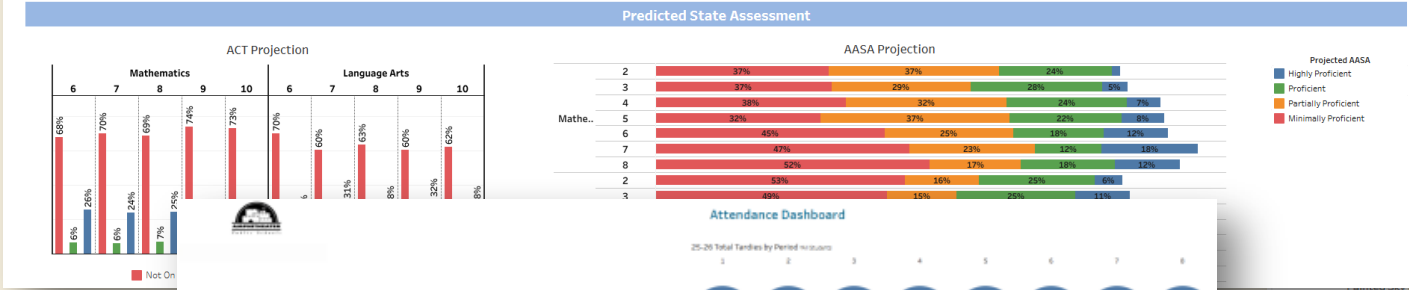
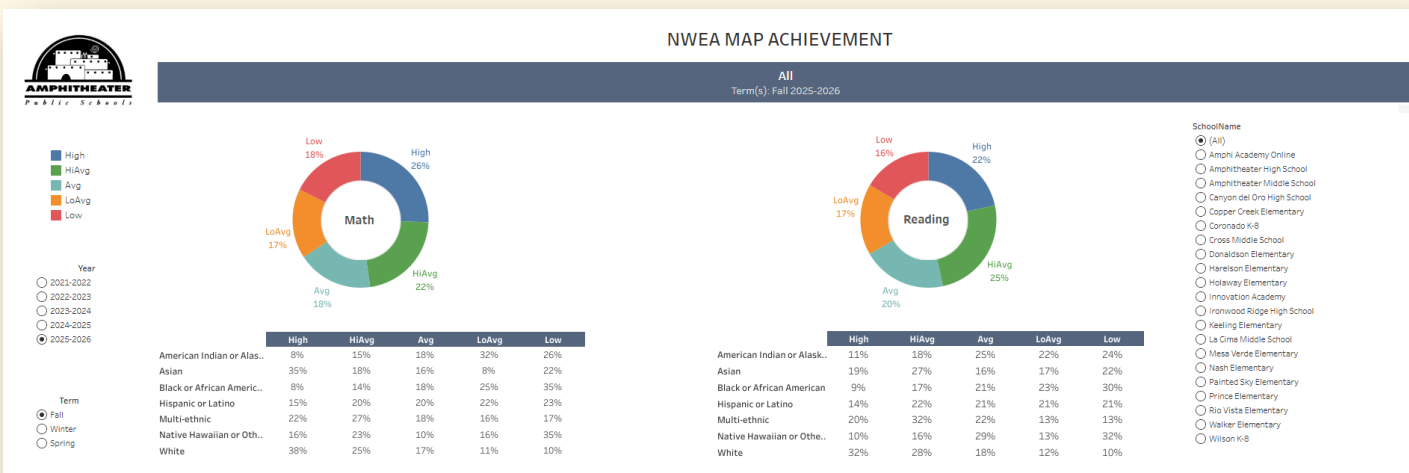
Directly supports strategic planning, early trend detection, and targeted interventions to improve outcomes.

## Monitor and Allocate Resources

Leaders can allocate resources effectively and track student progress.



# Examples of BI, Tableau, and Dashboards



# Under the Hood

Component	Description
<b>Data Source Connectivity</b>	Systems like Infinite Campus, assessment platforms, and spreadsheets
<b>ETL</b>	Processes that Extract, Transform, and Load data into Tableau
<b>Analysis and Statistical Tools</b>	Built in functionality, calculations, and analytical features.
<b>Dashboards</b>	Visual interfaces for sharing, exploring, and analyzing data



# Security & Access

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## Role-Based Access Control

Different user roles have specific data access levels to protect privacy and improve data management.

## Row Level Security

Ensures that school personnel only see the data that is appropriate for their school or position.

## Data Privacy Compliance

Access and other controls ensure compliance maintains student privacy including restricting data visibility appropriately.

## Transparency and Collaboration

Secure access promotes collaboration while maintaining confidentiality across the district's users.





# Success Stories & Examples

## Student Performance

Data visualizations highlight student strengths and areas for improvement, driving targeted academic support for major assessments.

## School Improvement & Goal Setting

Dashboards have enabled school and district leaders to optimize supports, resource allocation, and operational efficiency. (SMART Goals, Teacher Data-Conversations, Targeted School Improvement)

## Fostering Data-Driven Culture

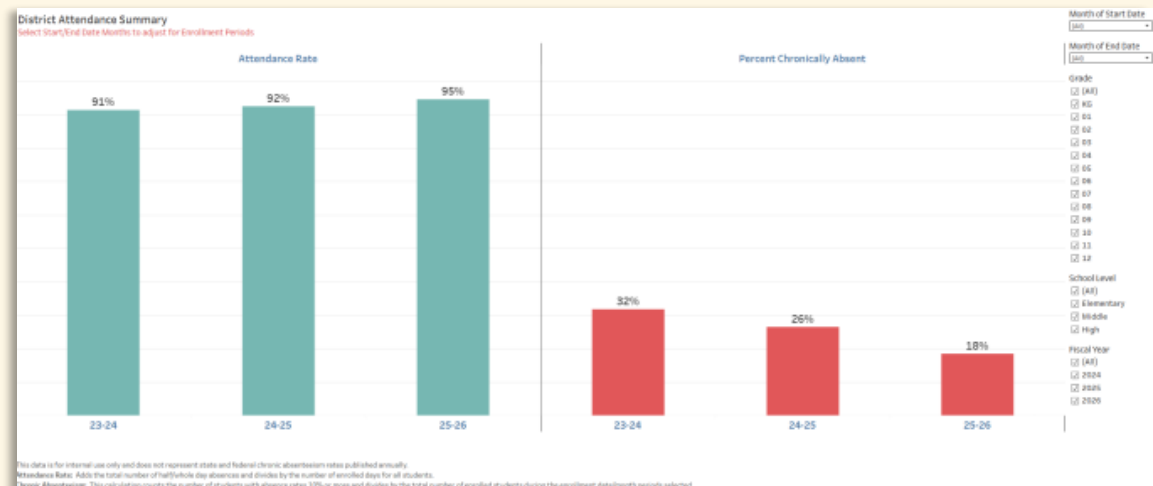
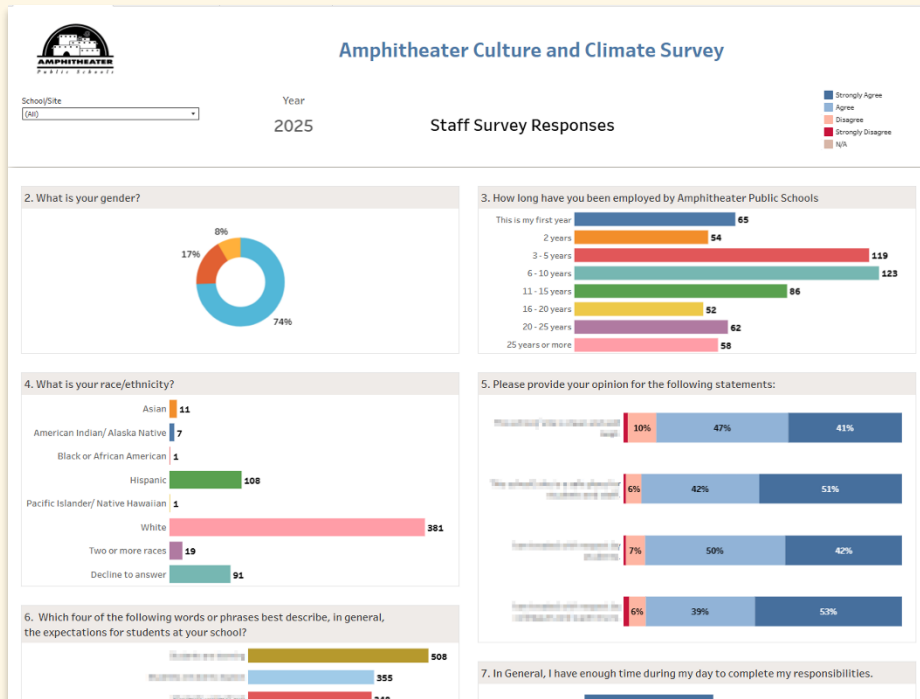
Data driven (information-rich) culture of decision-making and continuous improvement.

### Dashboards & Processes

- ✓ Enrollment Trends and Demographics
- ✓ Assessment Data (State Assessments, District Assessments, etc)
- ✓ Attendance Metrics
- ✓ PBIS and Discipline
- ✓ Course Enrollments
- ✓ ATPES

# Looking Ahead: Possibilities

- ✓ Learning and Instruction
- ✓ Supporting Strategic Initiatives
- ✓ Broad Application & Flexibility
- ✓ Internal & External Reporting



# Thank You

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