

# Delta Analysis Report

Student Trajectory Monitoring | Westfield Middle School | Q3 2024-25

Delta Analysis tracks **trajectory changes over time** — catching the drift before it becomes a crisis. Rather than flagging students who have already fallen behind, this methodology identifies **declining patterns early** so intervention happens when it can still make a difference.

<p><b>847</b> Students Monitored</p>	<p><b>63</b> Negative Trajectory</p>	<p><b>41</b> Early Alerts Sent</p>	<p><b>28</b> Interventions Active</p>
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## Understanding the Delta

A student's delta is the **rate of change** in their key metrics over a rolling window. A GPA of 2.5 is concerning — but a GPA that dropped from 3.2 to 2.5 over six weeks tells a fundamentally different story than one that's been stable at 2.5 all year. The delta captures this distinction.

*"Meet them where they're at" means understanding the student's trajectory from their perspective — not measuring them against an arbitrary benchmark.*

## GPA Trajectory Comparison: Three Student Profiles

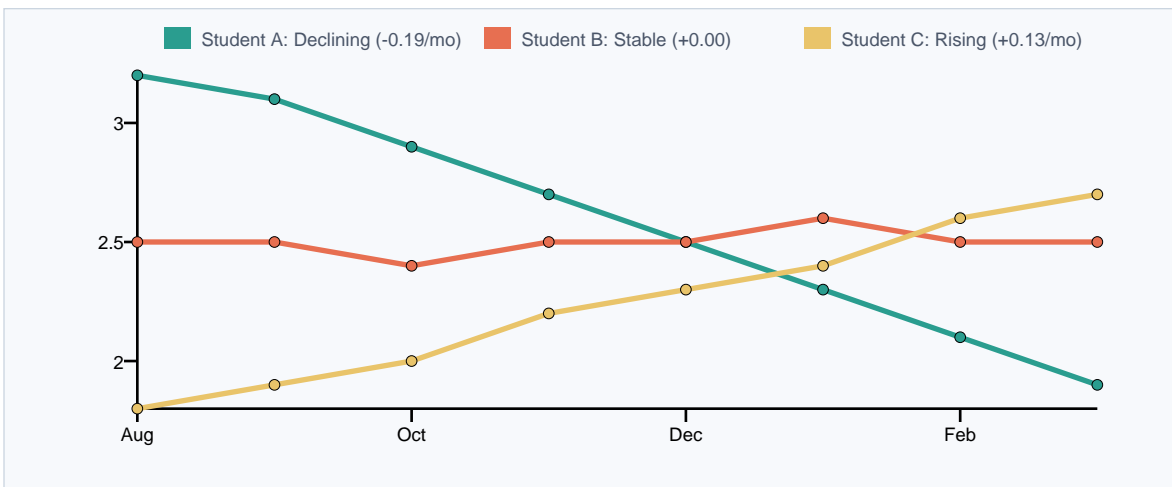


Figure 1: Student A's declining trajectory triggers an alert at the -0.15/month threshold, while Student B (same current GPA) does not. Student C shows positive momentum.

## Key Insight for Educators

Traditional dashboards would flag Students A and B identically — both sit near a 2.5 GPA in January. Delta Analysis surfaces the critical difference: **Student A is in freefall** while Student B is stable.

Meanwhile, Student C at 2.7 wouldn't appear on most watch lists, but their positive trajectory deserves reinforcement.

## Delta Alert Thresholds

Metric	Yellow Alert	Red Alert	Window
GPA Delta	-0.10/month	-0.20/month	Rolling 8 weeks
Attendance Delta	-3%/month	-5%/month	Rolling 6 weeks
Behavior Incidents	+1/month	+2/month	Rolling 4 weeks
Assignment Completion	-8%/month	-15%/month	Rolling 6 weeks

## Current Alert Distribution

Grade	Total Students	Yellow Alerts	Red Alerts	% Monitored
6th Grade	289	14	5	6.6%
7th Grade	278	11	8	6.8%
8th Grade	280	18	7	8.9%

*Note: A delta alert is a **flag for investigation**, not an action trigger. Every alert requires a counselor or teacher to examine context before determining next steps. Data flags demand curiosity, not assumptions.*

## Recommended Next Steps

- 1. Investigate context** — Before any intervention, understand *why* the delta is changing. A declining GPA during a family crisis requires a different response than one caused by course difficulty.
- 2. Cross-reference metrics** — A GPA decline paired with attendance decline tells a different story than GPA decline with stable attendance. Use the full picture.
- 3. Communicate with the student** — Meet them where they're at. The student's own understanding of what's happening is the most important data point you'll find.

This report was generated using synthetic student data for demonstration purposes. All student identifiers are fictional. No real student data was used.