

Attendance Deep Dive

When Aggregates Mislead | Westfield Middle School | 2024-25

A school's average attendance rate is one of the most commonly reported — and most commonly misleading — metrics in education. This report demonstrates how **aggregate metrics can actively mask the students who need the most support.**

92.4% School Avg. Attendance	14.8% Chronically Absent	6.2% Severe Chronic Absence	11.3% Perfect Attendance
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The Aggregate Illusion

92.4% average attendance sounds healthy — most schools would celebrate that number. But it's an average across 847 students. The distribution tells a completely different story.

Attendance Range	Students	% of School	Avg GPA	Cumulative
98-100%	168	19.8%	3.42	19.8%
95-97.9%	214	25.3%	3.18	45.1%
90-94.9%	201	23.7%	2.87	68.8%
85-89.9%	112	13.2%	2.51	82.1%
80-84.9%	67	7.9%	2.18	90.0%
70-79.9%	52	6.1%	1.84	96.1%
Below 70%	33	3.9%	1.42	100%

One in six students (17.9%) attends below 85% — missing roughly **one day every week**. The school average of 92.4% completely obscures this reality.

"When someone shows you a school attendance average, your first question should be: What does the distribution look like? The average is the least interesting number in the dataset."

The Extracurricular Connection

One of the most striking patterns in our data: students with **no extracurricular activities** show dramatically different attendance profiles than students involved in even one activity.

Activity Level	Students	Avg Attendance	Chronic Absence Rate	Avg GPA
Varsity Athlete (2+ sports)	84	96.8%	2.4%	3.21
Single Sport Athlete	143	95.1%	5.6%	2.98
Club/Activity Only	198	93.4%	9.1%	2.89
One Activity (any)	112	91.8%	14.3%	2.72
No Activities	310	88.2%	24.5%	2.31

Table 2: Students with no extracurricular involvement are nearly 10x more likely to be chronically absent than varsity athletes.

Day-of-Week Patterns

Absence patterns aren't uniform across the week. Monday and Friday absence rates are significantly higher — and the gap widens for already-struggling students.

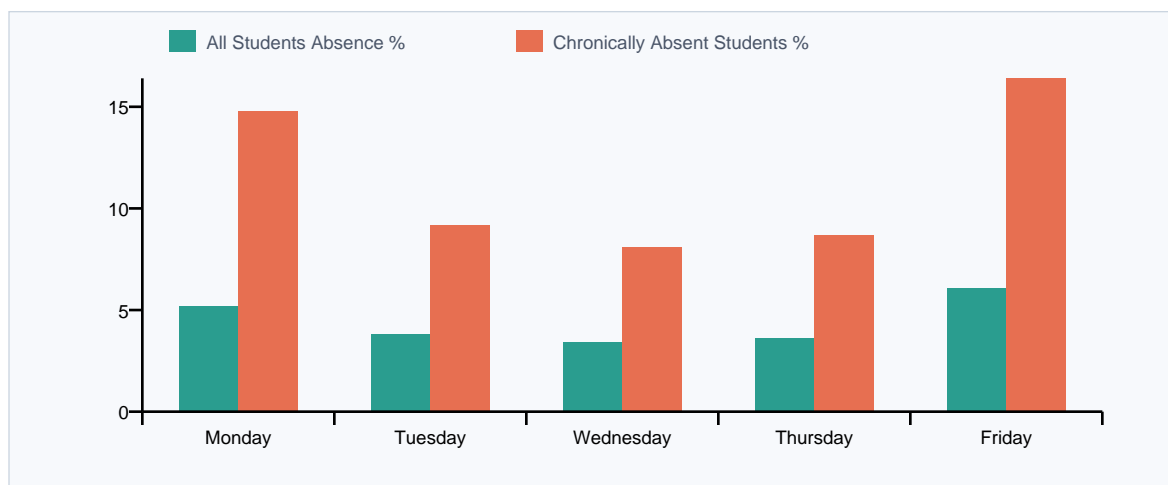


Figure 1: Chronically absent students miss Mondays at nearly 3x the rate of the general population. Friday patterns are similar.

Period-Level Absence (Partial Day Patterns)

Full-day absence data misses students who **arrive late or leave early**. Period-level tracking reveals that 1st period has a 12.3% absence rate versus 4.1% for 4th period — nearly a 3x difference. Students aren't absent from school; they're absent from mornings.

Period	Absence Rate	Tardy Rate	Combined Miss Rate	Pattern
1st (7:45 AM)	12.3%	8.7%	21.0%	Transportation / sleep
2nd (8:40 AM)	7.8%	3.2%	11.0%	Late arrival carryover
3rd (9:35 AM)	5.1%	1.8%	6.9%	Baseline
4th (10:30 AM)	4.1%	1.2%	5.3%	Baseline

Period	Absence Rate	Tardy Rate	Combined Miss Rate	Pattern
5th (12:15 PM)	4.8%	2.1%	6.9%	Post-lunch walkout
6th (1:10 PM)	6.4%	1.9%	8.3%	Early departure begins
7th (2:05 PM)	9.2%	1.4%	10.6%	Early departure peak

What This Means for Intervention

- 1. Stop reporting just the average** — Show the distribution. Board members and administrators need to see the bimodal reality, not a comfortable mean.
- 2. Investigate the non-participants** — 310 students with no activities is the population with the most room for connection. What barriers exist? Cost? Transportation? Interest? Awareness?
- 3. Rethink the school day** — A 21% miss rate in 1st period means one in five students consistently misses whatever is taught first. Schedule intervention and core instruction accordingly.

All attendance data is synthetic, generated by the DataInEd District Factory. Patterns are modeled on real-world distributions for educational purposes.