

Executive Summary

The Bayless School District has consistently committed to enhancing educational outcomes. This report presents a five-year analysis of key performance metrics and financial data to highlight the district's progress and areas for improvement. The analysis compares Bayless to comparable districts, illustrating trends and providing insights that inform strategic planning.

Proposed Solution

The following visualizations and analyses address key questions posed by Bayless stakeholders:

1. Financial Comparison: We compare Bayless's financial data with similar districts to identify spending trends and resource allocation efficiency.
2. Trend Identification: Visualizations highlight trends in student demographics, academic achievement, and financial allocations over the past five years.
3. Value Communication: We emphasize Bayless's unique value through a data-driven narrative, showcasing educational achievements and financial stewardship.

Methodology

The analysis utilized data from the Bayless School District and comparable districts. Key metrics included student performance indicators, financial allocations, and demographic data. We applied statistical methods to identify trends and comparative metrics.

Data Selection

1. Student Performance Trends
 - a. Total Students and Diversity Rate
 - i. Relevance: Illustrates enrollment trends and diversity, showing Bayless's success in attracting a diverse student body.
 - ii. Insight: Enrollment has increased, with a growing diversity rate, reflecting Bayless's appeal to families seeking inclusive education.
 - b. Graduation Rate and College Enrollment
 - i. Relevance: Highlights academic success and post-secondary readiness.
 - ii. Insight: Graduation rates remain high, with an increasing percentage of students pursuing higher education, underscoring Bayless's commitment to student success.
2. Financial Trends
 - a. Revenue and Expenditure Analysis
 - i. Relevance: Compares Bayless's financial health to similar districts, focusing on revenue streams and spending efficiency.

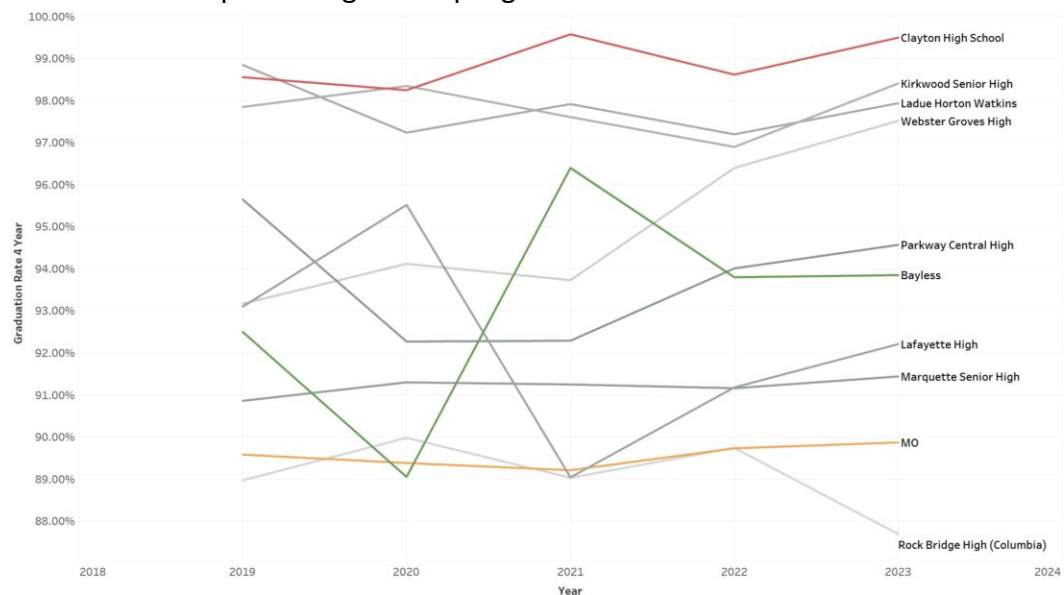
- ii. Insight: Bayless allocates resources efficiently, maintaining a balanced budget while investing in student programs.
- b. Staff Salaries and Professional Development
 - i. Relevance: Evaluates investment in human capital, a critical factor for educational quality.
 - ii. Insight: Competitive salaries and significant professional development expenditures indicate a focus on retaining and developing high-quality staff.

Data Visualizations and Analysis

Student Performance

1. Graduation Rate

- a. Bayless students outperform the average Missouri high school in graduation rate and remain competitive against top high schools.



2. ACT Participate Rate & Performance

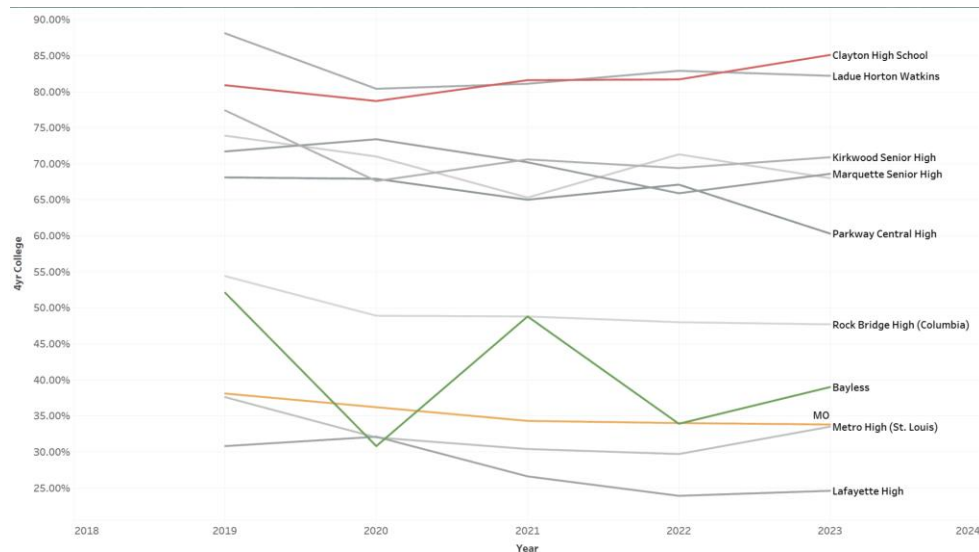
- a. Bayless students have a significantly higher intention to attend ACT in Missouri on average, but their scores are lower than the average.
- b. One reason might be that students taking the ACT tend to be those with better academic performance (top 60–70% of students), which leads to a higher average score. Hence, a lower average score does not mean the district is worse.
- c. An example is Metro High School, one of Missouri's top 10 high schools. Metro's ACT participation rate is the highest, but its ACT score is the lowest.

Bayless vs MO: ACT Performance



3. Where Graduates Go

- a. Bayless has a higher ACT participation rate and a higher rate of students who go to a 4-year college after high school, showing Bayless students are strongly motivated to attend college.



Develop Factors That Affect Student Performance

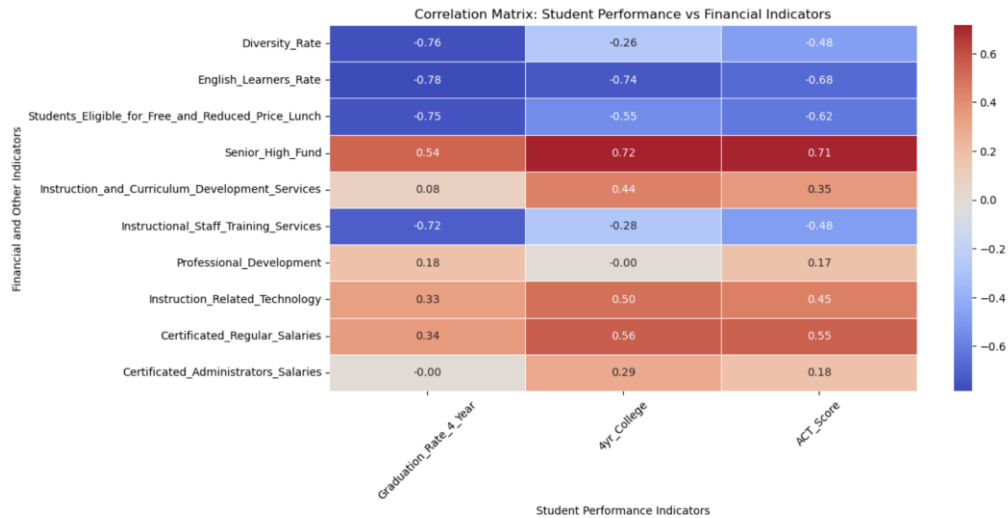
With the correlation matrix, we determine “impactful factors” as those with a correlation higher than 0.5 or lower than -0.5, as 1 represents a perfect positive correlation and -1 represents a perfect negative correlation. These thresholds help us identify which financial and demographic factors substantially influence key student performance metrics.

1. Demographic Reasons

- a. Diversity rate, English learner rate, and the proportion of students who need lunch support are strongly negatively correlated with students’ performance.

2. Financial Funds

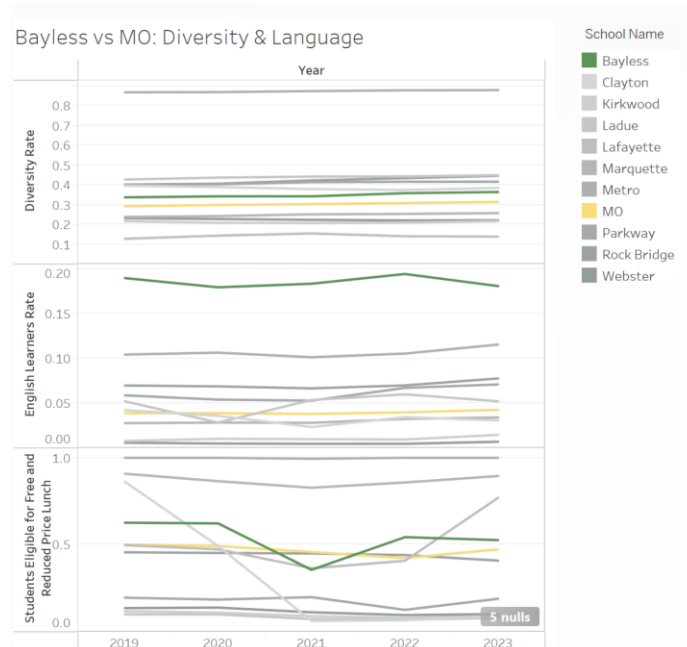
- a. Senior High School Fund significantly positively correlates with 4-Year College Attendance and ACT Scores.
- b. Certificated Regular Salaries and Instruction Related Technology moderately positively correlate with performance metrics.
- c. Prioritize financial allocations in areas that positively impact college attendance and ACT scores, such as senior high school funds, technology, and teacher support.



Note: Financial Data Was Divided by Number of Students

Demographic Distribution

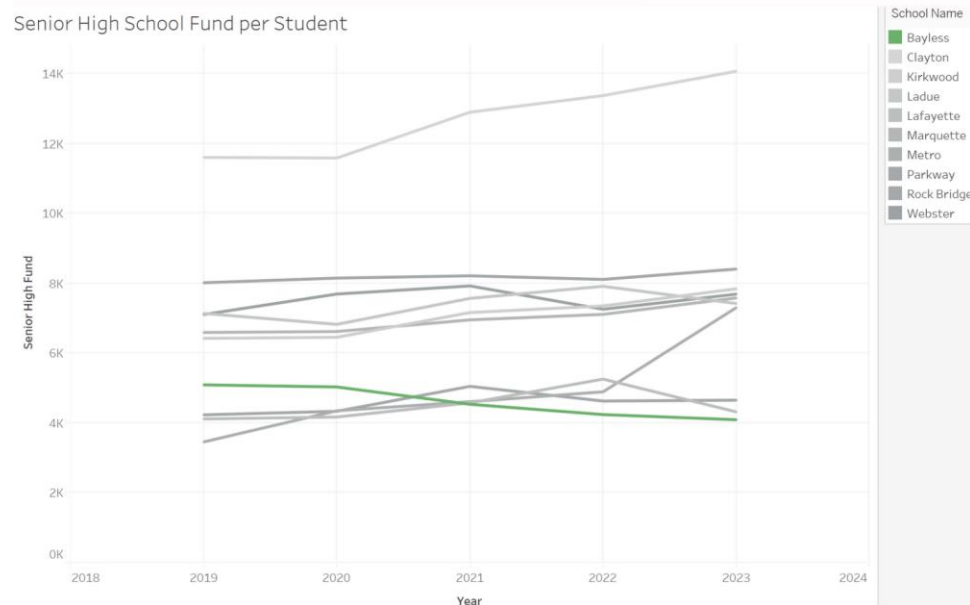
1. Diversity Rate
 - a. The diversity rate is the number of non-white students divided by the total number of students.
 - b. Bayless' diversity rate is a little higher than average.
2. English Learner Rate
 - a. Bayless' English learner rate is significantly higher than other schools.
3. Students Eligible for Lunch Aids
 - a. Students eligible for free and reduced-price lunches might need additional economic support, and Bayless students have more needs than other schools.



Financial Status

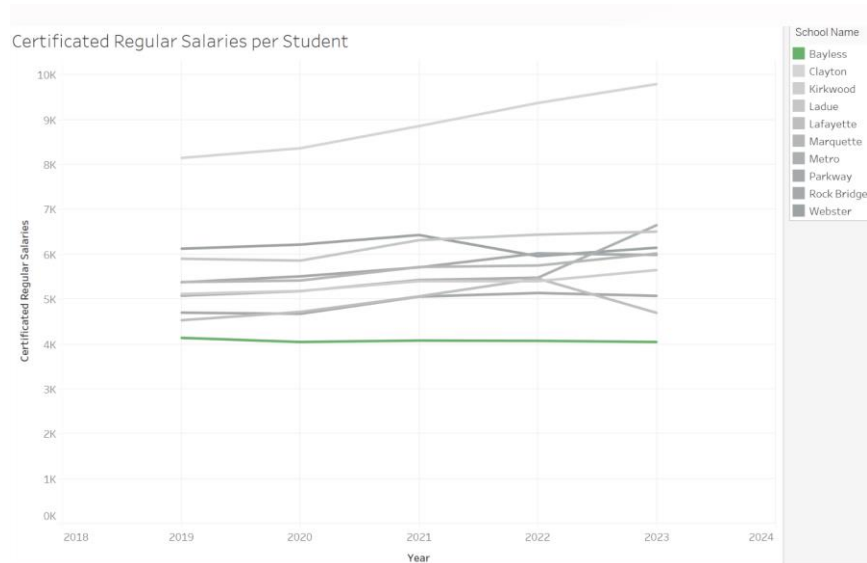
1. Senior High School Fund per High School Student

- Bayless consistently receives one of the lowest funding per student compared to top regional schools.
- Also, Bayless's funding has slightly decreased year by year while others are having increasing funds.



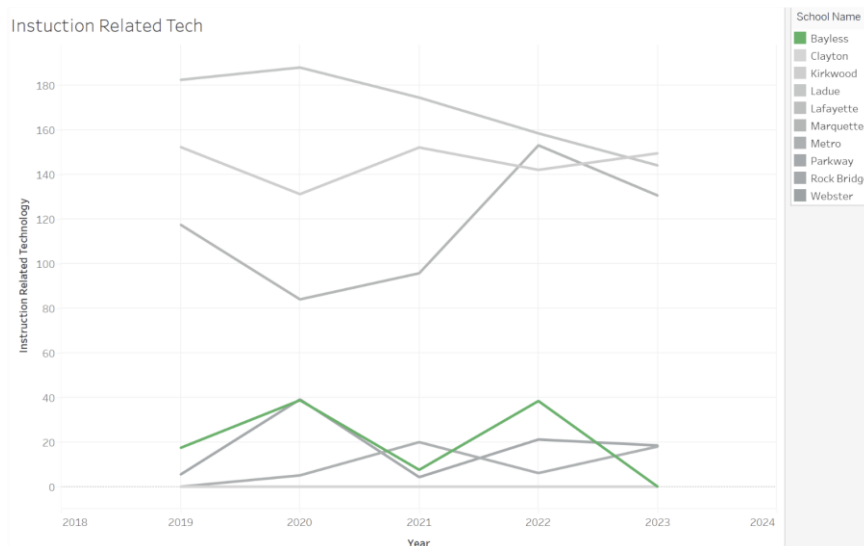
2. Certificated Regular Salaries

- Instead of calculating teacher salaries per teacher, calculating teacher salaries per student provides a clearer picture of how financial resources are directly allocated to support student needs, emphasizing a student-centric approach to education. This helps identify disparities in resource allocation, ensuring equity and adequacy in teaching support across different schools or districts.
- As the graph shows, Bayless has the lowest teacher salary per student, so it needs more budget to increase teachers' salaries or hire more teachers.



3. Instruction Related Technology

- Bayless shows fluctuations in technology spending, with peaks in 2020 and 2022. In 2023, the expense was zero.
- The overall spending is lower compared to most other schools.



Conclusions and Recommendations

Bayless School District has successfully outperformed in many aspects of student performance. However, lots of students desire to go to college but need to improve their ACT scores. Also, Bayless' three impactful funds, according to the correlation matrix, are lower than those of other top schools, while Bayless' demographic distribution is a disadvantage to student performance.

Recommendations:

1. Enhance ACT Preparation Programs
 - a. Improve student ACT scores by implementing targeted preparation programs and providing access to test-taking strategies.
 - b. Examples: Offer after-school tutoring sessions and ACT workshops; partner with local colleges or online platforms to provide additional resources and practice tests.
2. Increase Investment in Key Financial Areas
 - a. Allocate more resources to the Senior High School Fund, technology, and teacher salaries to positively impact student performance.
 - b. Increase teacher salaries per student by increasing an individual's salary or hiring new teachers
3. Support for Diverse and English Learner Populations
 - a. Address the unique challenges diversity and English learner students face to improve overall performance.
 - b. Implement targeted support programs such as English language development classes and multicultural education initiatives.
 - c. Engage families and communities to foster an inclusive environment that supports all students.

Bibliography

ASBR

<https://apps.dese.mo.gov/ASBR/PublicView.aspx>

District Report Card

https://apps.dese.mo.gov/MCDS/Reports/SSRS_Print.aspx?Reportid=6a5392af-6f3d-46a5-92e1-f39fdfa861c2

US News

<https://www.usnews.com/education/best-high-schools/missouri>