KDE Success Data Analysis

This project analyzed Kentucky Department of Education (KDE) report card datasets to explore relationships between test scores, school climate/safety, and postsecondary readiness. The objectives of this project included:

- Investigate how academic performance correlates with perceptions of school climate and safety.
- Examine geographic and indicator-based patterns in career readiness.
- Identify potential links between school environment and postsecondary outcomes.

Upon digging into the data, three main findings emerged.

1. There exists no strong correlation between reading/math scores (or their changes) and climate/safety survey results.
2. Slightly higher ratios were observed of students with multiple readiness indicators vs. “no indicator” observed in central and south-central Kentucky. No correlation was observed between “no indicator” ratios and industry certification ratios.
3. The county in the Louisville metro and surrounding counties with the highest postsecondary status also had the highest scores on climate and safety question indices, suggesting a potential link between student perceptions and readiness.

The limitations of the data included career readiness indicators that lacked total student counts, preventing percentage-based comparisons, as well as a lack of a data dictionary, leaving some values ambiguous and up to the user to interpret appropriately.

In conclusion, this project’s findings provide three key insights for stakeholders involved in Kentucky education. The first is that reading and math academic performance alone does not predict a positive or safe school climate. The second is that there is no general area in Kentucky where students greatly exceeding career readiness requirements are far outweighing students who are not meeting career readiness requirements. Finally, in Louisville and surrounding areas, a potential connection between climate/safety perceptions and postsecondary readiness warrants further investigation by stakeholders.