Variability Among Schools and Districts in Ohio with Reading Achievement Plans: A Mixed-Methods Study

2023-2024 School Year

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READ Ohio

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Executive Summary

The Reading Achievement Plan (RAP) is a district plan for raising student achievement in reading. Ohio law requires each school district or community school that meets the following criteria, as reported on the past two consecutive report cards issued for that district or community school, to submit a Reading Achievement Plan to the Ohio Department of Education and Workforce:

1. The district or school received a performance rating of less than three stars for early literacy component on Ohio's School Report Card
2. Fifty-one percent or less of the district or school's students scored proficient on Ohio's State Test for grade 3 English language arts.

Districts and community schools receive feedback in the form of strengths and suggestions for improvement. Districts' and community schools' plans are posted on the Department's website. Monitoring districts' and community schools' RAP informs state and regional efforts to support districts in implementing evidence-based language and literacy instruction and intervention. These supports include professional learning, individualized coaching by regional state support teams and educational service centers, and state-level technical assistance. Despite these supports, 2024 data revealed that the majority of districts and community schools required to submit a RAP (hereafter referred to as RAP schools and districts) were unable to demonstrate sufficient change in student outcomes and continued to meet the criteria that requires submission of a RAP. In part, this suggests that more needs to be done to understand the barriers and challenges that RAP schools and districts encounter in order to develop more effective and accessible resources and supports so all students in Ohio can be proficient readers.

The current study addresses this need. First, descriptive analyses were used to characterize RAP schools and districts. Next, the descriptive data were examined to determine the extent to which subgroups of RAP schools and districts could be identified, and if the subgroups were associated with a change in RAP status from the 2022-2023 school year to the 2023-2024 school year. Finally, a qualitative analysis of the submitted plans was conducted to understand the specific internal and external factors that RAP schools and districts identified as contributing to their RAP status and whether those differed for schools and districts that moved out of RAP status. Analyses yielded several important findings that can inform and improve the supports provided to these schools and districts as they work to improve reading instruction for their students. Specifically, this report found that:

- The identified subgroups were primarily characterized according to school type (district, community school, large urban district).
- Subgroups were not associated with moving off the RAP list in 2024; however, schools and districts that moved off the RAP list served lower percentages of students experiencing economic disadvantagement.
- Schools and districts that moved off the RAP list reported fewer external factors that contributed to students' literacy achievement overall, suggesting that those schools and districts may have more control over the circumstances that are associated with their students' literacy proficiency.

Background

In Ohio, state law requires that students who score "not on track" for reading at grade level in grades kindergarten through grade 3 must be placed on a Reading and Improvement Monitoring Plan (RIMP) that is tailored to their needs in order to support their reading skills. In recent years, just over one-third of students on RIMPs advance their reading skills sufficiently and are considered to be on track for reading at grade level by the following year. Despite the fact that some students on RIMPs are demonstrating good progress at the student level, there are still a large number of districts and community schools that have a large percentage of students whose poor reading skills persist, as measured by the state tests. For those schools and districts, there may be systems-level changes and improvements that are needed to facilitate a greater scale of change for their young students. To that end, Ohio state law monitors and tracks public school districts and community schools at the aggregate level to identify those with overall low levels of reading achievement among their students in grades K-3. In those instances, schools and districts must write a detailed RAP that outlines a systems-level improvement process to raise literacy proficiency for all students. Schools and districts use a [Department-provided template](#) to provide all the required information. The template is divided into seven sections that provide information about the district or school leadership team, alignment between the RAP and overall improvement and equity efforts, the reasons why a RAP is needed, and then goals and an action plan for addressing the goals, a process for monitoring progress, and a detailed plan support learners and adult implementation. The current report focuses on information in section 3 of the RAP, in which schools and districts share disaggregated student data and identify the external and internal factors that they believe contributes low reading achievement in their communities.

Research suggests that there are numerous factors and circumstances beyond instructional quality that are associated with low reading achievement when examined at the individual student level. Prior studies have identified both child-specific and environment-specific factors that are associated with reading ability, such as a child's socioeconomic status, home literacy experiences, and overall emergent literacy skills as predictors of later reading achievement (Aikens & Barbarin, 2008; Evans et al.; 2000; Li et al., 2023). When reading achievement is considered at the aggregate level, such as at the school or district-level, these individual variations are not as well accounted for but the associations between socioeconomic status and reading achievement are magnified (Yeung et al., 2022). For example, one study found that the correlation between socioeconomic status and achievement was about .30 at the student level but .60 at the school level (Sirin, 2005). Further complicating considerations at the district level is that variations within a school's student population are not necessarily something that schools and districts can exert control over or change. Schools and districts cannot alter a student's socioeconomic status and may only have minimal influence on other environmental factors that are associated with a student's reading ability at school entry.

However, a growing body of research on characteristics and mechanisms that facilitate unexpected increases in academic achievement within schools and districts that have more challenges and barriers, often referred to as positive outlier, or "beating the odds" research. For example, Berkowitz (2021) found that school climate moderated relations between school level

socioeconomic status and reading achievement. McCoach and colleagues (2010) found that parental satisfaction with schools and parental involvement were factors that distinguished positive outlier schools from schools that were considered to be underperforming. In short, the accumulated research on positive outlier schools suggests that factors that serve as mechanisms of change for underperforming schools may be associated with systems-level and process-oriented variables that subsequently impact a school's culture and context. In order to provide the most effective and targeted supports for schools and districts with high levels of student reading underachievement, it is critical to identify the school and district-level factors that are associated with gains in student outcomes and understand the barriers and challenges that some schools and districts encounter in providing high-quality reading instruction to their students.

Study Aims

The present study addresses this need by examining the characteristics of schools and districts in Ohio that met the requirements for submitting Reading Achievement Plans (RAPs) in 2023 but were able to increase literacy achievement within a year sufficiently to no longer meet those requirements. This study used both qualitative and quantitative data to address the following research questions:
1) What are the student population and demographic characteristics of the 2023 RAP schools and districts?
2) To what extent are there identifiable subgroups of RAP schools and districts?
3) What differentiates schools and districts that moved off the RAP list in 2024?

Study Methods and Results

Study Question 1: What are the characteristics of the 2023 RAP districts and community schools?

Ohio law requires each school district or community school that meets the following criteria, as reported on the past two consecutive report cards issued for that district or community school, to submit a RAP:
1) The district or school received a performance rating of less than three stars for early literacy component on Ohio's School Report Card
2) Fifty-one percent or less of the district or school's students scored proficient on Ohio's State Test for grade 3 English language arts (ELA) state test.

This requirement was paused in the years following the pandemic but was reinstated in 2023, based on data from the 2022-2023 school year. In the fall of 2023, **55** traditional school districts (9% of all traditional districts) and **117** community schools (35% of all community schools) were identified as meeting the above criteria and were required to submit a RAP to the Department. Table 1 below shows some of the demographic data of the RAP schools' and districts' student population. Total student enrollment refers to the total number of students enrolled in the school

or district. Attendance rate is the percentage of enrolled students who are in attendance during a school year.

Table 1. Descriptive statistics of the demographic variables of all RAP districts and community schools

Characteristic	Mean	Standard deviation	Range
Total student enrollment	2184	5871	78 - 44981
Attendance rate	86.8%	4.62%	70 - 97%
% of students with disabilities	17.67%	9.89%	0 - 72%
% of students who are multilingual	7.63%	15.01%	0 - 78%
% of students identified as minority	75.54%	28.67%	2 - 100%
% of students experiencing economic disadvantagement	94.16%	13.35%	37 - 100%
Average English language arts proficiency rate	32%	12%	0 - 50.5%

Data in Table 1 indicate that RAP schools and districts serve a high percentage of students, on average, who are experiencing economic disadvantagement and who are identified as minority. However, the most striking finding from the table above is the wide range and variability on all the student population variables, including ELA proficiency. This suggests that although these schools and districts are similar in that they met the RAP criteria, they differed significantly in almost every other way. To further explore this variability, the next step was to determine the extent to which subgroups of RAP schools and districts could be identified, based on the demographic variables listed above.

Study Question 2: To what extent are there identifiable subgroups among the 2023 RAP districts and community schools?

K-means cluster analysis was used to identify the appropriate number of RAP school and district subgroups. Cluster analysis is a statistical method that organizes items into groups – or clusters – based on how closely associated they are with respect to specific variables. It is most useful for understanding patterns in data among heterogeneous groups. Using this method, it was determined that a 3-cluster solution was the best fit:

- "**High risk" subgroup** was the largest subgroup ($n = 122$) and characterized by lower enrollment numbers, low attendance rate (i.e., chronic absenteeism), but higher proportion of students identified as "minority", higher proportions of students experiencing economic disadvantagement, and higher proportions of students who are multilingual learners compared to the other two groups.
- "**Low risk" subgroup** ($n = 45$) was characterized by larger enrollment numbers, higher attendance rates compared to group 1, but more students with disabilities. However, this

group has fewer students identified as minorities, and lower proportions of students experiencing economic disadvantage and multilingual learners.

- The smallest subgroup was the **large urban districts** (*n*=6) that was clearly distinguished by very large enrollment numbers.

Figure 1 below shows how these three groups varied based on the selected variables. Note that the data was standardized, as different variables were based on different scales. The standardization process puts the values of all variables on the same distribution where "0" is the mean and "+/-1" is the standard deviation, thus allowing for clear comparison across all factors.

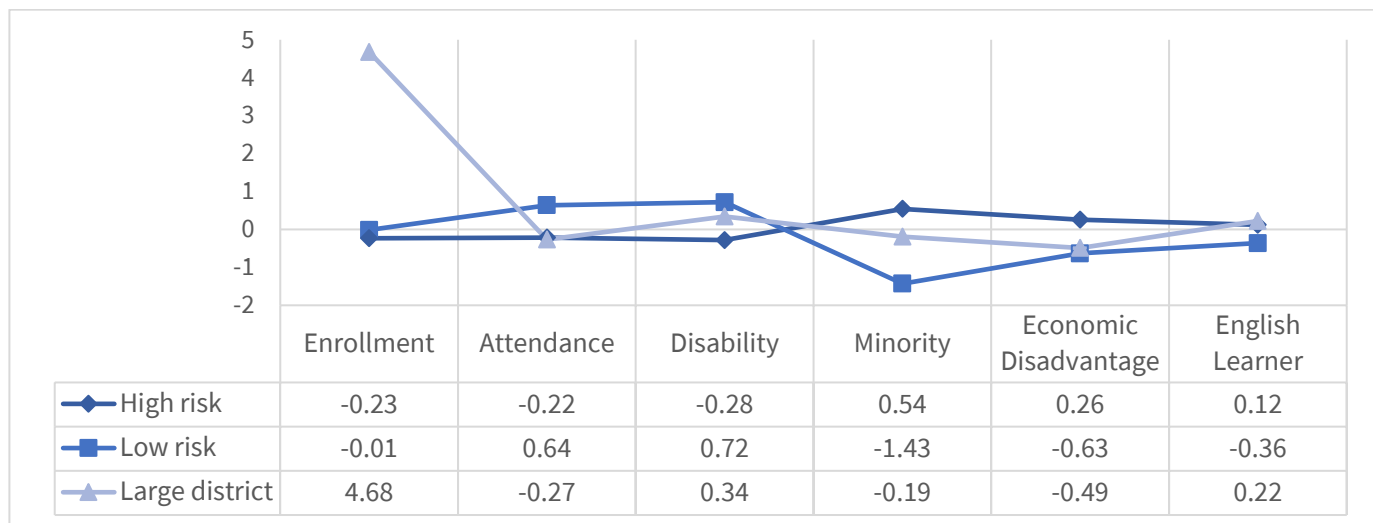|	Enrollment	Attendance	Disability	Minority	Economic Disadvantage	English Learner
High risk	-0.23	-0.22	-0.28	0.54	0.26	0.12
Low risk	-0.01	0.64	0.72	-1.43	-0.63	-0.36
Large district	4.68	-0.27	0.34	-0.19	-0.49	0.22

Figure 1. Z scores for the demographic variables used in the K-means cluster analysis determining three subgroups: High risk, low risk, and large district.

While it was clear that three subgroups could be identified based on student population characteristics, it was of interest to understand additional variables that differentiated these subgroups, such as the use of state-approved high-quality instructional materials (Figure 2) and school type (Figure 3 - traditional district vs. community school).

As seen in Figure 2, although there was a higher proportion of the "low risk" schools and districts that reported using high-quality instructional materials compared to the "high risk" schools, results of the analysis indicated that these differences were not statistically significant.
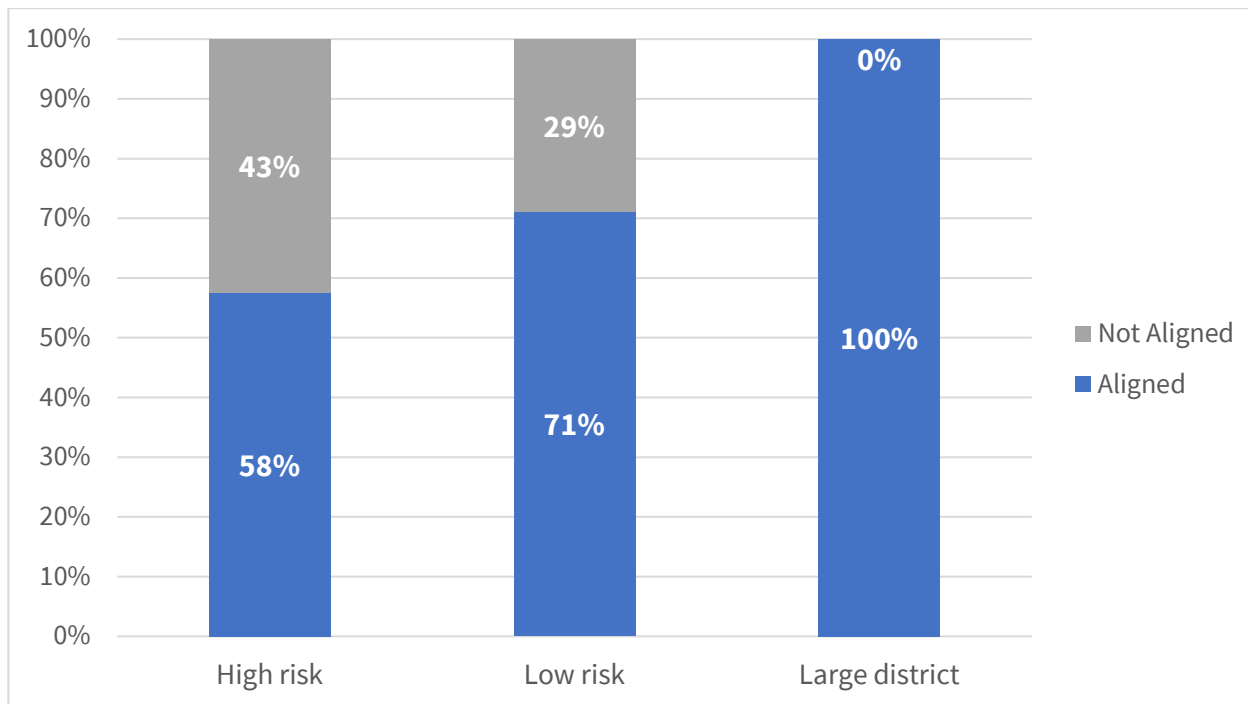
Figure 2. Proportion of schools and districts in each subgroup that reported to use instructional materials aligned to the 2023 state-approved list.

However, Figure 3 shows that the subgroup differences are clearly differentiated by school type, such that there is a significantly greater proportion of community schools in the high-risk group, compared to a greater proportion of large districts in the low-risk group.
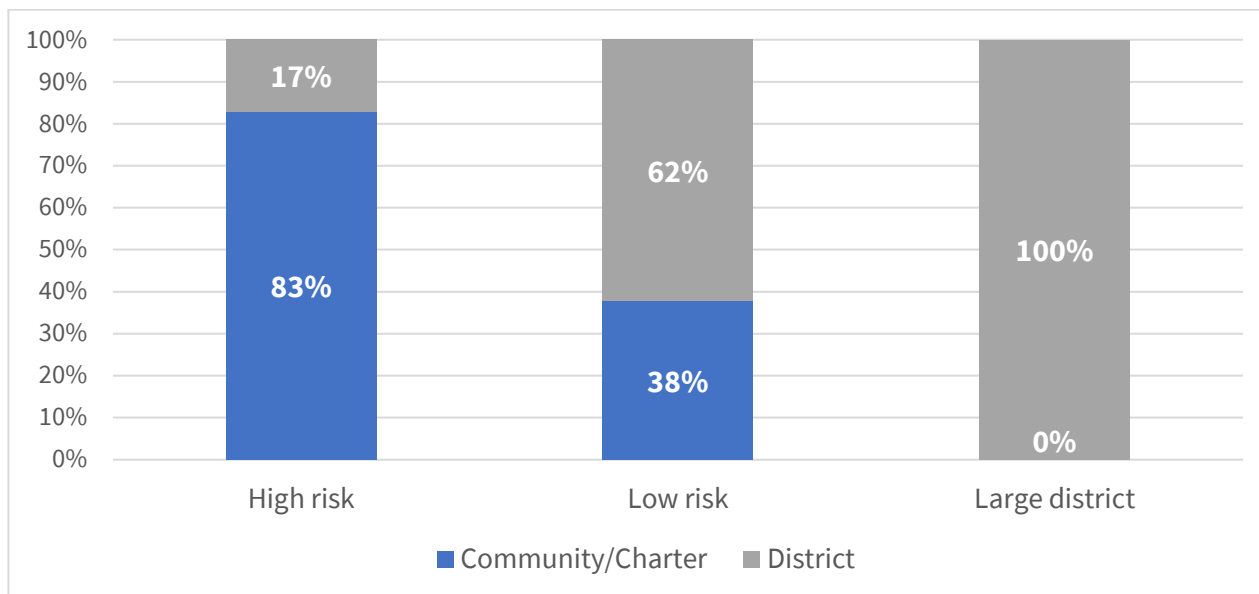

Figure 3. Proportion of schools and districts in each subgroup that are community schools or traditional districts.

Study Question 3: What differentiates schools and districts that moved off the RAP list in 2024?

In the 2024 school year, 46 traditional districts and 104 community schools were required to submit a RAP to the Department. In large part, these schools and districts were submitting a RAP for the second consecutive year, with just 36 schools and districts (21%) moving off the RAP list in 2024. Although only a small proportion of schools and districts moved off the RAP list, it was of interest to identify the specific variables that might have characterized those that moved off the list, as it might inform targeted supports for those schools and districts still struggling.

Analyses to identify these characteristics were done in two ways. First, quantitative analyses that investigated the extent to which those 36 schools and districts differed according to:
- the subgroups previously identified;
- community school vs. traditional district;
- any of the demographic variables used to identify subgroups; and
- differences in the use of state-approved high-quality instructional materials.

Next, a qualitative analysis was conducted using data from section 3 of the RAP from a subset of the submitted RAPs. Specifically, a content analysis focused on the section of the RAP where schools and districts identified and described the internal and external factors that contributed to their students' reading underachievement. Content analysis is a research method that identifies the presence of certain words, themes, or concepts within some given qualitative data (Bengstton, 2016). The total number of factors, as well the presence of the most commonly reported factors was compared between the repeat RAP schools and districts and those that moved off the 2024 RAP list.

Quantitative analyses. It was of further interest to determine whether the proportion of schools no longer on the RAP list was different among the three previously identified subgroups. As seen in Figure 4 below, a larger proportion of low risk and large district schools were more likely to drop off the RAP list compared to high-risk schools and districts, although the difference in proportions was not significant, probably due to the small sample size. Similarly, there were no significant differences when examining variation according to school type (traditional district vs. community school), or use of high-quality instruction materials from the state-approved list. A set of independent-samples t-tests were used to examine differences between the schools and districts no longer on the RAP list and those remaining on the RAP list based on the demographic variables used to determine subgroups. Although there was a trend for schools and districts that remained on the RAP list to have a higher proportion of students with disabilities, higher proportion of multilingual leaners, higher enrollment numbers and overall lower student attendance rates, results showed that only differences in the percentage of students experiencing economic disadvantagement was statistically significant (t=3.12, df =171, p <.01). Specifically, schools and districts that remained on the RAP list had a higher proportion of students experiencing economic disadvantagement compared to those no longer on the RAP list in 2024.
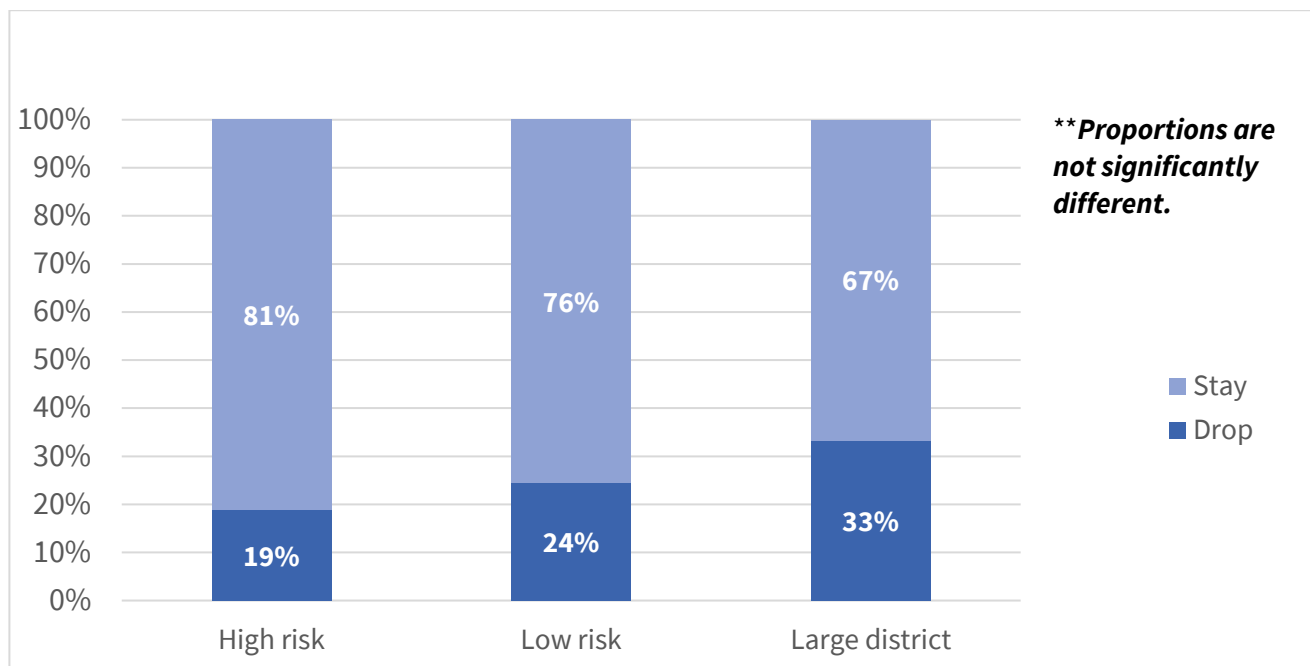
Figure 4. *Proportion of schools and districts in each subgroup that either remained a RAP school or district in 2024 or dropped off the list for 2024.*

Qualitative analysis. An analysis of responses to two specific sections of the RAP (internal factors and external factors) was conducted to identify the most frequently listed internal and external factors that were considered to be contributing to reading underachievement. This section of the RAP is an open-ended free response question in which schools and districts list and describe the factors that they consider to be key mechanisms and challenges that are associated with their students' low reading achievement. A total of 98 RAPs from 37 traditional districts and 61 community schools were analyzed and included all 36 schools and districts that were no longer on the 2024 RAP list in order to identify potential differences in both the number and type of cited factors. A total of 28 internal factors and 24 external factors were noted by this subset of schools and districts. Table 2 shows the factors that were reported by at least 10% of the schools and districts and were used in all subsequent analyses. The full list of factors is in Appendix A.

Table 2. Most frequently reported internal and external factors that contribute to low reading achievement.

Internal Factors	Count	%	External Factors	Count	%
Professional development of current / new instructors is needed.	48	49%	High proportion of students experience economic disadvantagement	52	53%
Curriculum has recently changed or needs to be changed	36	37%	Poor student attendance	50	51%
Lack of quality instructors	30	31%	Lack of students' preK / K readiness	38	39%
High staff turnover	29	30%	Limited family / community engagement	37	38%
Implementation challenges	23	23%	High rates of mobility/transiency	26	27%
Instruction	12	12%	High percentage of multilingual learners	21	21%
Resource / support	12	12%	COVID	18	18%
Assessment	11	11%	Resources	17	17%
School / building culture	10	10%	High number of students with disabilities	16	16%
			Social emotional support	11	11%

After reviewing the RAPs for the most commonly reported internal and external factors, it was of further interest to determine whether the total number of factors cumulatively, or any specific factors, might differentiate the schools and districts that were no longer on the RAP list in 2024 from those that continued to meet the RAP criteria. The total number of internal factors and the total number of external factors were separately calculated for both groups of schools and districts (No longer on the RAP list, Remained on the RAP list). Schools and districts that remained on the RAP list reported a significantly greater number of external factors compared to those no longer on the RAP list. There were no group differences specific to the total number of internal factors reported.

Next, analyses comparing potential differences of each of the most commonly reported factors was conducted. Figure 5 shows the proportional difference between the two school/district groups on internal factors and Figure 6 shows the proportional difference between the two school/district groups on external factors. Results showed that the only external factor that was significantly different was high student mobility/transiency, such that a greater proportion of districts and schools that remained on the RAP list reported this factor compared to schools and districts no longer on the RAP list. The only internal factor that was significantly different between these two groups was the lack of quality instructors. Unexpectedly, the difference was that a greater

proportion of the schools and districts that were no longer on the RAP list indicated this factor, compared to those that remained on the list.
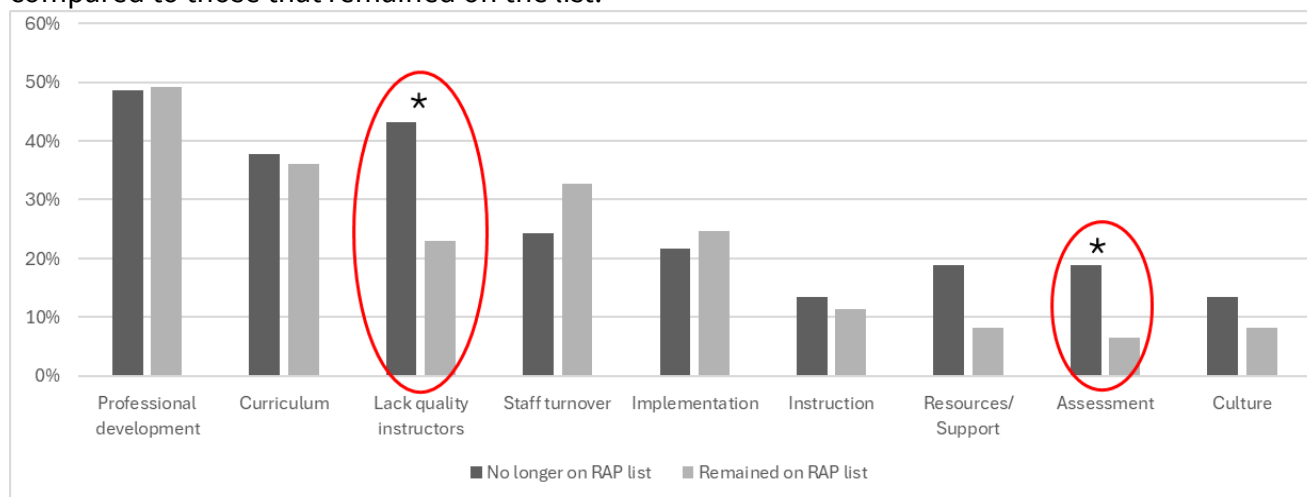

Figure 5. *Group differences between schools and districts that were no longer on the RAP list vs those that remained on the RAP list in 2024 on the most frequently reported internal factors that were identified as contributing to low reading achievement.*

Figure 6. *Group differences between schools and districts that were no longer on the RAP list vs those that remained on the RAP list in 2024 on the most frequently reported external factors that were identified as contributing to low reading achievement.*
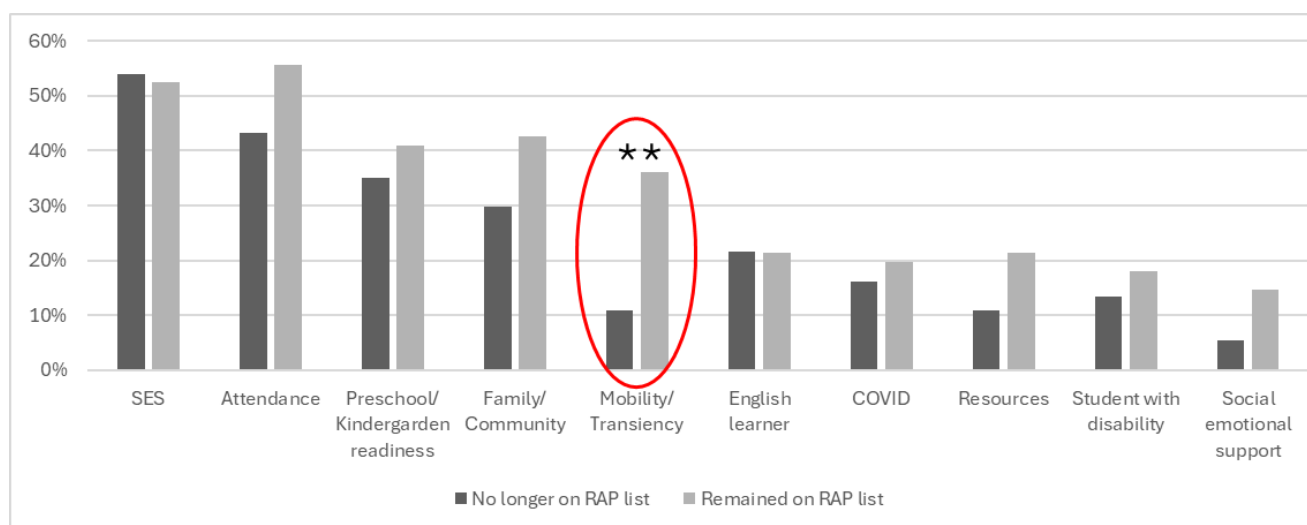*** indicates statistically significant differences between the two groups (p<.05).*

Key Takeaways

The analyses conducted for this report yielded several interesting and important findings that can inform current policies and practices in Ohio, as well as the ways in which the Department might focus efforts to better support RAP schools and districts to provide effective literacy instruction for all students. Key takeaways from this study are discussed below.

A ONE-SIZE FITS ALL APPROACH TO SUPPORTING RAP SCHOOLS AND DISTRICTS MAY NOT BE EFFECTIVE

The descriptive analysis of the 173 RAP schools and districts in 2023 highlighted the variability across nearly all the demographic characteristics examined. In other words, although RAP schools and districts are similar in that they have high proportions of students who score poorly on the state ELA test, there are numerous differences with respect to the communities and populations they serve. This suggests that efforts to facilitate change and improvement within these schools and districts should account for the different contexts within which schools must operate and consider the specific needs of each school or district. What works well in one district may not have the same impacts in another district.

THERE IS A NEED TO BETTER UNDERSTAND THE COMMUNITY SCHOOL CONTEXT

Several data points throughout this research and analyses underscored the differences between traditional districts and community schools in Ohio. For example, descriptive analyses indicated that a much larger proportion of community schools (approximately 35%) were identified as RAP schools compared to the overall proportion of traditional districts (9%). Accordingly, the cluster analysis that was used to determine the extent there were identifiable subgroups of RAP schools and districts indicated that school type was a distinguishing characteristic. Specifically, most of the schools and districts in the high-risk subgroup were community schools, most of the schools and districts in the low-risk subgroup were traditional districts, and the third subgroup was clearly distinguished as large urban districts.

In Ohio, although community schools are considered to function similarly to traditional districts in that they operate autonomously under the authorization of sponsoring organizations, results from this study suggest that there may be vital differences between districts and community schools that are related to student achievement. Identifying these differences, and potential barriers and challenges that community schools experience, is an important endeavor so that students in community schools have access to and can receive the instruction they need to be successful. For example, it may be the case that some community schools might not be aware of or have ability to access the current resources offered by the Department or regional structures. However, more specific and concerted efforts must be made to ensure equitable access to supports and services for community schools, specifically those required to submit RAPs. As such, the Department might consider how to engage the sponsors in professional learning as well and support their decision-making and resource allocation within individual schools.

ADDRESSING THE CORRELATION BETWEEN ECONOMIC DISADVANTAGEMENT AND READING SUCCESS IS CRITICAL

Results from this study confirmed one of the most consistent findings in the field of education - there is a strong association between students' socioeconomic status and reading achievement. This study illustrated that relationship in several key ways. First, the proportion of students experiencing economic disadvantagement was extremely high in all the RAP schools and districts, averaging at almost 95%. Of all the demographic characteristics that were examined in this study, this variable appeared the most consistent among the RAP schools and districts. Second, analyses examining the differences between schools and districts that no longer met RAP criteria in 2024

indicated that the only variable distinguishing these two groups was the percentage of students experiencing economic disadvantagement. Schools and districts that had improved reading scores from the 2022-2023 school year had lower proportions of students experiencing economic disadvantagement. Finally, the qualitative analysis of the RAP narratives showed that over half of the reviewed plans had identified a high percentage of students who are economically disadvantaged as an external factor that contributed to the school or district's reading underachievement.

Despite these findings, it is important to remember that although this association is strong, it is not absolute, nor is it necessarily a one-to-one correlation. There are several other variables that can potentially moderate this relationship, including poor student attendance, low family involvement, limited preschool experiences, and school climate (Berkowitz, 2021). Schools and districts cannot change students' socioeconomic status, but research suggests that schools and districts with strong systems-level structures in place, and particularly those that develop lasting and authentic family and community partnerships, can impart change on other associated variables. The effort to support improvement in some of these areas is already underway. For example, reducing chronic absenteeism and expanding access to high-quality early childhood programming is a major initiative in Ohio, and the ReadOhio laws heavily emphasize the importance of family partnerships. As such, the Department has and will continue to develop actionable and feasible practices that can be directly applied to improving schools and districts systems of support while simultaneously acknowledging the complex contexts of underperforming schools and districts.

READING ACHIEVEMENT PLANS CAN PROVIDE ROADMAPS FOR DEVELOPING RESOURCES AND SUPPORTS

Qualitative analyses of the internal and external factors that schools and districts identified as contributing to reading underachievement showed that those that remained on the RAP list for 2024 noted an overall greater number of external factors compared to schools and districts no longer on the RAP list. One interpretation of this result is that those remaining on the RAP list must navigate a greater number of barriers and challenges that are outside of their control to manage. External factors largely related to characteristics about the student population that are not malleable (for example, multilingual learners, transiency and Covid). However, another interpretation of this is that these schools and factors may have limited access to the available resources and supports that allow them to mitigate any negative impacts from these external factors. The Department can take more proactive approaches to ensuring equitable access to resources and support by partnering with other state and community agencies.

Encouragingly, many of the common internal factors that schools and districts reported as contributing to reading underachievement are ones that the Department has started to focus on as part of the ReadOhio initiatives. For instance, the top three most commonly reported internal factors were the need for professional development, the need for new curriculum or that new curriculum materials were purchased but not yet fully implemented, and a lack of trained teachers. One of the primary components of the ReadOhio initiative is that all teachers, including administrators, complete professional learning in the science of reading, and that the Department must create a free and easily accessible course to achieve that learning. The courses that meet this

requirement are now available online, which will hopefully allow schools and districts to overcome that hurdle. In future years, it is likely that this is a factor that will be less frequently reported, and optimally, one that contributes to fewer schools and districts required to submit a RAP. However, the Department can also consider ways to differentiate and intensify professional learning opportunities for schools and districts, particularly leveraging regional supports. The state-developed science of reading courses provide a comprehensive overview, but many schools and districts may benefit from follow-up supports.

A second key component of ReadOhio that may address some of the most commonly reported internal factors is the requirement to adopt and implement high-quality instructional materials for reading and writing instruction and intervention. Moreover, schools and districts that did not have these materials already received a stipend to use towards meeting this requirement. Many RAP districts are in the process of complying with this requirement. However, given that teacher quality and professional development is listed as one of the top internal factors contributing to lack of reading achievement, professional learning on how to use the approved curriculum and instructional materials is a vital step to effective implementation. In response to the findings of this study, the Department can promote the allowable use of various state funds (ex. Disadvantaged Pupil Impact Aid) and federal funds (ex. Title II, Title II-A, Title III, IDEA Part B) on curriculum-based professional learning so districts and community schools can train their teachers on how to use the newly adopted curriculum materials and reading intervention programs.

Considered altogether, this study showed that the careful review of the RAP narratives was very informative for identifying areas of need and topics for additional professional learning. Although the RAP schools and districts were different based on several demographic variables, there were clear trends in the most commonly reported internal and external factors that they identified as related to reading underachievement among their students. Factors that are not already being addressed in current policy and legislation can inform the Department of other resources and guidance documents that can help schools and districts address these issues.

Finally, it should be noted that analyses showed some unexpected results when comparing the frequency of some of the internal factors for schools and districts that remained on the RAP list and those who were no longer on the list in 2024. In general, there was a trend for a smaller proportion of schools and districts no longer on the RAP list to note many of the internal factors compared to those remaining on the list, which is somewhat counterintuitive. Furthermore, proportional differences were significant for the challenge of high-quality instructors. This outcome is difficult to interpret, but it is possible that schools and districts that recognize this factor as contributing to student reading underachievement have better supports in place to offset negative impacts. If that is the case, it is a factor that can be further capitalized upon to engage schools and districts in professional learning and systems-level support.

Conclusion

Several laws in Ohio are designed to ensure that all students have access to high quality reading instruction and are supported to be successful in all areas of academic achievement. While some laws are specific to student-level support, there is legislation in place to identify schools and districts that continually serve a high percentage of students who are not proficient readers so that they can devise a plan to improve reading outcomes. For many schools and districts, devising this plan is only a part of the solution because the contexts within which they operate are qualitatively different from those that serve students with lower percentages of students who are not proficient readers. Despite these very different contexts, all schools and districts are held to the same standard and expected to achieve the same standards. This mixed-methods study presents a new and innovative approach to better understand the variability of schools and districts with high levels of reading underachievement while ensuring that the schools' and districts' perspectives were included. Results from this study underscore the importance of considering the specific and unique contexts of schools and districts that serve some of Ohio's most vulnerable students and the value in validating their perspectives of what they need to be successful. Although some of the identified needs are already being met in part by new and current literacy policies, this study has ascertained additional areas to focus support and professional learning opportunities.

References

Aikens, N. L., & Barbarin, O. (2008). Socioeconomic differences in reading trajectories: The contribution of family, neighborhood, and school contexts. *Journal of educational psychology*, *100*(2), 235-251.

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus open*, *2*, 8-14.

Berkowitz, R. (2021). School climate and the socioeconomic literacy achievement gap: Multilevel analysis of compensation, mediation, and moderation models. *Children and Youth Services Review*, *130*, 106238. https://doi.org/10.1016/j.childyouth.2021.106238.

Evans, M. A., Shaw, D., & Bell, M. (2000). Home literacy activities and their influence on early literacy skills. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, *54*(2), 65-75.

Li, J., Peng, P., Ma, X. E., Ding, N., & Zhao, J. (2023). How Does Family Socioeconomic Status Influence Children's Reading Ability? Evidence from Meta-analytic Structural Equation Modeling. *Educational Psychology Review*, *35*(4), 119. https://doi.org/10.1007/s10648-023-09834-1

McCoach, D. B., Goldstein, J., Behuniak, P., Reis, S. M., Black, A. C., Sullivan, E. E., & Rambo, K. (2010). Examining the unexpected: Outlier analyses of factors affecting student achievement. *Journal of Advanced Academics*, *21*(3), 426-468.

Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of educational research*, *75*(3), 417-453.

Yeung, S. S., King, R. B., Nalipay, M. J. N., & Cai, Y. (2022). Exploring the interplay between socioeconomic status and reading achievement: An expectancy-value perspective. *British Journal of Educational Psychology*, *92*(3), 1196-1214.

Appendix A. List of Reported Internal and External Factors Contributing to Reading Underachievement

Internal Factors	
Code	**Definition (as described in the RAPs)**
Assessment	Lack of assessment tools needed to measure student knowledge and progress.
Culture	The culture within the school is not supportive of student learning.
Curriculum	Curriculum has recently changed/ needs to be changed and instructors are adapting.
Data	There were problems with data collection form assessment material to help with decision making on interventions, implementation, and curriculum.
Implementation	Implementation of interventions have been inconsistent across school.
Instructor attendance	Instructors have not been in attendance to do their job consistently which has caused a reliance on substitutes.
Instruction/ instruction model	Lack of instructional tools to help instructors teach.
Instructor resistance	Instructors have been resistant to using new curriculum/ interventions.
Intervention	Lack of intervention tools and poor implementation of interventions.
Leadership	Inconsistent leadership
Low expectation	Staff exhibit low expectations for students adding to student apathy to perform to their best abilities.
Professional development	Professional development of current/ new instructors is needed.
Staff shortage	There has been a lack of qualified instructors.
Staff turnover	Staff retention has been low and there is a constant need to rehire.
Student behavior	Student misbehaved leading to suspension/ expulsion/ class disturbances.
Time constraints	Not enough time for instructors to get through curriculum material.
Transportation	Inadequate transportation

External Factors	
Code	**Definition (as described in the RAPs)**
Attendance	The school's attendance has been around 70 – 80% consistent and many students struggle with chronic absenteeism.
COVID	The pandemic has been the cause of instruction changes that many were unable to adapt to.
Diverse population	School does not have the adequate resources to support the learning of diverse populations.
Drug use	Outside of school students and community members struggle with substance abuse.
Family / community	The surrounding family and community is not conductive for students to learn. No reading is done outside of school.
Lead exposure	Lead exposure within the community have had impacts on students' health and learning.
Migrant population	School does not have the adequate resources to support the learning of migrant populations.
Mobility / transiency	Many students move in and out of the school, some not being able to fully complete their time.
Multilingual	The school has many students who are multilingual learners, and the school/district lacks the resources to optimally serve them.
Opioid epidemic / narcotics	Drug use resulting in preterm babies and children being born with a variety of disorders
Preschool/ kindergarten readiness	Many students have not attended preschool and are not ready for kindergarten, making those who fall behind stay behind.
Resources	Most students lack resources such as housing, food, etc.
Socioeconomic status	Most students are economically disadvantaged.
Social emotional support	Many students are in need of social emotional support for what they deal with at home and in school outside of instruction.
Student apathy	Students lack the motivation to learn and are disengaged from curriculum.
Student behavior	Students exhibit disruptive behavior that is difficult for staff to handle.
Students who are English Language Learners (ELL)	The school has many students who are English Language Learners, and the school or district lacks the resources to accommodate them.
Students with disabilities	The school has many students with disabilities that they do not have the resources for to provide quality instruction
Substance abuse	Within the community there is substance abuse.