Center for Practice Engaged Education Research (C-PEER)

SCHOOL OF EDUCATION & HUMAN DEVELOPMENT

UNIVERSITY OF COLORADO **DENVER**

Research Brief: Relationships among Teaching and Learning Conditions Colorado (TLCC) Survey Results, Teacher Retention, and School Contextual Characteristics

Provided by:
Kent Anderson Seidel, PhD
Julie Oxenford O'Brian, PhD

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Executive Summary

This report summarizes analysis conducted by the Center for Practice Engaged Education Research (C-PEER) of the relationships among Teaching and Learning Conditions Colorado (TLCC) survey results, teacher retention-related outcomes, and school contextual characteristics using responses from more than 28,000 Colorado educators. The analyses focused on the following questions:

- Which teaching and learning conditions are associated with teachers' perceptions of their school as a good place to work, and a good place for students to learn?
- Which are associated with teachers' plans to stay or leave their school?
- Which common conditions are most potentially changeable?
- How do broader combinations of school conditions influence retention-related outcomes?

Teacher retention is often discussed in terms of workforce shortages, turnover rates, and staffing challenges. While personnel data can identify whether teachers stay or leave, it does not explain organizational conditions associated with those decisions. We conducted this study to better understand how teachers' experiences of their schools, as measured through the Teaching and Learning Conditions Colorado (TLCC) Survey, relate to retention, mobility, and broader school outcomes. By examining retention alongside teacher perceptions, school contexts, student behavioral indicators, and organizational capacity factors, we seek to identify actionable conditions that school, district, and policy leaders can influence to strengthen workforce stability and support continuous improvement.

Major Findings

Five major findings emerged from the TLCC and educator retention study. First, **teachers' ratings of their school as a good place to work function as a powerful retention-related indicator**. This measure was strongly associated with teachers' intentions to remain in their school and captured much of the explanatory power of other TLCC general reflection items. Schools rated highly as places to work tended to demonstrate stronger indicators of workforce stability.

Second, the TLCC construct, **Support for Own Wellbeing** consistently emerged as one of the strongest predictors of teacher retention-related outcomes. Whether examining teacher plans to stay, perceptions of the school, district settings, or retention models by experience level, support for teacher wellbeing remained a central factor. **Professional Climate**, **Student Behavior**, **Staff Leadership**, and **Instructional Practices constructs** also repeatedly emerged as influential.

Third, **first-year teachers and experienced teachers respond differently to school conditions**. Support for their wellbeing was important for both groups, but first-year teacher retention was especially associated with Support for Own Wellbeing and Instructional Practices: Supportive Conditions. In contrast, experienced teachers demonstrated stronger associations with Professional Climate, Staff Leadership, and Student Behavior. These findings suggest that **retention strategies should vary by career stage**.

Table i

Retention Predictors are Different for New and Experienced Teachers

First-year Teachers		Teachers with 2+ years of experience
• Support for Own Wellbeing • Supportive Instructional Conditions		• Support for Own Wellbeing • Professional Climate • Leadership • Student Behavior Supports
Early Success in the Classroom		*Organizational Conditions to Stay*

Support for their wellbeing was important for all teachers. However, novice teachers appeared especially responsive to instructional support and survival-oriented conditions, while experienced teachers responded more strongly to broader organizational conditions.

Fourth, **retention and mobility appear to be responses to the same underlying school conditions.** Teachers who planned to stay and teachers who planned to leave for another school were influenced by many of the same organizational factors. Mobility therefore appears less a reflection of commitment to teaching and more a response to differences in institutional capacity across schools.

Fifth, **school conditions operate as interconnected systems rather than isolated factors.** Our analyses identified two broader forms of school capacity that repeatedly explained variation in retention-related outcomes: **Capacity to Support Wellbeing** and **Capacity to Support Academic Success**. Together, these capacities help explain why some schools are more successful in retaining teachers and are more likely to be viewed as positive workplaces.

Key Takeaways

Overall, these study findings suggest that teacher retention is fundamentally an organizational capacity issue rather than simply an issue of teacher commitment or workforce supply. Schools that create sustainable working conditions, support educator wellbeing, and provide the conditions necessary for instructional success are more likely to retain both novice and experienced teachers. Efforts to improve teacher retention are likely to be most effective when they move from examining broad capacities, to TLCC construct level results, to specific survey items and associated practices within those constructs.

Effective improvement efforts should begin with broad organizational capacity, then identify the TLCC constructs most related to desired outcomes and finally use item-level findings to identify specific improvement opportunities. Schools improve retention most effectively when they work from capacity → construct → item rather than beginning with isolated survey items.

Why this Study?

Teacher retention and turnover have become increasingly important concerns for schools, districts, and state policymakers. Although Colorado maintains substantial information about educator mobility through personnel and retention records, those data sources can identify *whether* teachers stay or leave but provide limited insight into *why*. The Teaching and Learning Conditions Colorado (TLCC) survey provides a unique opportunity to examine the organizational, instructional, and workplace conditions that may contribute to workforce stability, teacher retention and mobility.

This study was undertaken as part of a broader program of research undertaken by C-PEER using TLCC results to identify relationships among teaching and learning conditions, educator outcomes, student behavioral outcomes, and student academic performance. While prior research has consistently shown that working conditions matter for teacher retention, school leaders often have limited guidance regarding which conditions appear most influential, how those conditions interact, how they differ across groups of teachers, and which are most amenable to local improvement efforts. This study sought to address those questions using data from more than 28,000 Colorado educators and a wide range of school, district, community, and student-context variables.

Our research extends beyond traditional turnover analyses in several ways. First, we examined multiple retention-related outcomes simultaneously, including teacher plans to stay or leave, reasons for those plans, ratings of schools as good places to work, and school turnover indicators. Second, we investigated not only individual TLCC constructs and items, but also how clusters of conditions operate together as broader forms of organizational capacity. Third, we connected teacher retention to related areas of inquiry examined in the broader TLCC research agenda, including student behavior and academic outcomes. Together, these analyses provide a more comprehensive picture of the organizational conditions associated with workforce stability and school improvement.

The goal of this work is practical rather than descriptive. By identifying school conditions most strongly associated with retention-related outcomes and organizing those findings into actionable frameworks, we intend to help school, district, and policy leaders use TLCC results as part of continuous improvement efforts. Rather than viewing retention as a stand-alone workforce issue, the study findings support understanding retention as one indicator of broader organizational capacity to support educators and students successfully.

Overarching Research Question

Is there a relationship between school-level teacher retention and TLCC constructs/items?

Data

We utilized the 2024 TLCC results, retention, demographic, contextual characteristics, and behavioral incidence data from the closest time available to academic year during which the TLCC was administered in academic year 2023/24.

TLCC 2024 data included:

- The **original dataset** included 30,424 teachers within 1,280 schools. Based on our prior post-hoc response bias analyses, (see TLCC 2024 Technical Report), we worked with the non-charter and non-AEC schools only for this research, as they are substantively different from charter and AEC sites. The full group included charter school sites and additional non-charter AEC schools which were removed, providing an n size of **28,622 teachers within 1,171 schools**. Online, district, BOCES, and state specialized schools and early childhood centers without grades above kindergarten had already been removed.

- For one subgroup analyses, we worked with data from teachers in schools designated by the state as being **elementary and middle level** only. This included 15,516 elementary level teachers and 4,961 middle level teachers, a total n = 20,477 (~72% of teacher respondents).

- For other subgroup analyses, we analyzed **true novice teachers**, defined as those answering that they are in their 1st year in career and 1st year in their school (n = 1,519), compared to teachers with 2 to 20+ years' experience in career (n = 27,103).

- We also conducted subgroup analysis of teachers by **district setting**. The distribution of teacher respondents by setting included: *Denver Metro:* 15,933 (56%); *Urban-Suburban:* 6,330 (22%); *Outlying Town:* 3,530 (12%); *Outlying City:* 1,716 (6%); and *Remote:* 973 (3%); *unspecified:* 80 (0.3%).

- We also used a **variety of student, school, district, and community characteristics and demographic variables;** and for the Multilevel Analysis of Individual Heterogeneity and Discriminatory Analysis (MAIHDA), state teacher quality standards ratings (Colorado Department of Education, n.d.). These are all publicly available state datasets.

We **accessed, cleaned, merged, and analyzed collinearity** of several sources of data. We also created a variety of school-level variables, including aggregate means for all TLCC items and construct scale scores (for MAIHDA variable construction, these were categorized back into the 1 to 4 Likert scale of the original questions), school turnover rates averaged across years from 2017 (the year before the first administration of TLCC) through 2023 (the year just before the 2024 TLCC data were collected). In addition, to examine subgroups of teachers, we grouped respondent data by years of experience, grade level of school, and district settings. Our compiled turnover rate variables included average over the years and average volatility year to year to capture annual changes in turnover that might be attenuated by using simple means across years. We also constructed these two types of variables for pre- and post-pandemic periods.

Analysis Methods

We conducted three stages of analysis for this brief:

1. We analyzed teachers' general reflection ratings and what they identified as their plans for "next year" (AY2024/25 for the TLCC 2024 survey) and the primary reason (of eight choices provided) that they selected as most influencing their decision to stay or leave their current role, their district, or the profession. We investigated the relationship of the TLCC constructs to these outcome variables. We then conducted correlational and regression analyses of the outcome variables and within-construct TLCC items to identify 1) relationships and potential collinearity and multicollinearity ("overlap") between the outcome variables; and 2) the most influential items within the TLCC constructs identified as predicting retention-related outcome variables.

2. We conducted correlational and regression analyses of teacher **p**lans for the subsequent school year and the reasons for their plans with other general reflection items and with scale scores for the TLCC constructs. Our focus included examining how many reasons given by leavers/stayers were potentially malleable in the short- and medium- term by school and/or district leadership. As a subsequent analysis, for the constructs identified as having the most explanatory power, we regressed the items comprising the constructs with the construct scale score to help with leaders' drill-down diagnostic efforts.

   We evaluated one- and two-level regression models of the TLCC responses from individual teachers to determine if there was a significant influence of within-school groupings, which would require a 2-level model. Because the questions asked of teachers were already about their school, and our dependent variables were either school-level retention related variables and characteristics, teachers' responses to ratings of their school, or their next-year plans, we expected and confirmed that single-level regression models were adequate and appropriate.

3. We analyzed a variety of student, school, district, and community contextual variables to examine whether and to what extent school characteristics were related to retention, TLCC respondents' general ratings of their school as a good place to work and good place for students to learn, their plans for the coming year, and reasons for those plans. We also conducted Multilevel Analysis of Individual Heterogeneity and Discriminatory Analysis (MAIHDA), of key school characteristics and the TLCC and school retention rate outcomes to examine potential influences arising from intersectional combinations of factors that might provide important, nuanced understandings that single-axis factor analysis of the variables might miss.

Stage 1: TLCC Constructs and Items Related to Retention Outcomes

Retention related outcome variables

Given that the TLCC included several retention-related variables, we first needed to identify at a basic level how they relate to each other. To do this, we analyzed correlations among the variables, some of which are embedded in the TLCC survey—and thus might be expected to align more strongly with other TLCC questions—and some that are school-level sources more distant from individual teachers' TLCC responses. **Table 1** presents these findings.

We noted a strong correlation among the three TLCC items: recommend the school as a good place to work, recommend as a good place for students to learn, and satisfied with recognition received for doing a good job. To examine the interaction of these outcome variables with each other and with the stay/move/leave plans, we compared a simple correlation with a partial correlation controlling for the variable "recommend as a good place to work." **Table 2** presents the comparison findings.

Of particular interest is that much of the explanatory power (r^2) between "good place to learn" and "satisfied with recognition" drops from r^2 = 36% down to r^2 = 2% after controlling for the mutually correlated variable "good place to work" (note peach-colored box highlighting). We see an even more dramatic drop regarding the TLCC items and respondents' next year plans. While not strong to start with, controlling for "good place to work" brings explanatory power of "good place to learn" (r^2 = 11%) and "satisfied with recognition" (r^2 = 9%) to effectively zero, and each becomes non-significant for plans to leave the current school (note light blue box highlighting). We interpret this to mean that the most important TLCC General Reflection item to use for these analyses was how respondents rate their school as a good place to work.

Table 1

Correlations of Retention Related Outcome Variables

Retention Related Outcome Variables. N ~ 28,000 All correlations statistically significant at p < .001	good place to work	good place to learn	Satis-fied	3 Gen Reflection Items	stay in school	Turn-over rate AY23
General reflection item: I would recommend this school as a good place for students to learn.	**0.78**					
General reflection item: I feel satisfied with the recognition I get for doing a good job.	**0.70**	**0.60**				
General Reflection Items (work/learn/recognition) Scale Score	**0.92**	**0.88**	**0.88**			
Planning to stay in school in current role	**0.40**	0.33	0.30	**0.38**		
School turnover rate AY23	-0.14	-0.17	-0.05	-0.13	-0.10	
Mean of school annual turnover rate post COVID AY21 to AY23	-0.15	-0.19	-0.06	-0.14	-0.11	**0.77**

Table 2

Correlations and Partial Correlations, next year's reasons with TLCC general reflection items

Bivariate Correlation: **Retention Related Outcome Variables with all TLCC Constructs** Pearson's *r*; n ~ 26,500 All correlations statistically significant at p < .001	good place to work	good place for students to learn	satisfied with recog-nition
I would recommend school as a good place for students to learn.	0.78	--	
I feel satisfied with the recognition I get for doing a good job.	0.70	**0.60**	--
Planning to stay teaching in current school	**0.40**	**0.33**	**0.30**
Keep teaching in district but leave school	-0.31	-0.23	-0.22
Keep teaching but leave district (and school)	-0.19	-0.17	-0.13
Partial Correlation, Control Variable: *I would recommend this school as a good place to work.* Pearson's *r*; n = 25,841; all statistically significant at p < .001 except as noted			
I feel satisfied with the recognition I get for doing a good job.		**0.13**	
Planning to stay teaching in current school		**0.04**	**0.05**
Keep teaching in district but leave school		**n.s.** (*p* = .259)	-0.01
Keep teaching but leave district (and school)		-0.05	**n.s.** (*p* = .336)

We also explored which TLCC constructs correlate (Pearson's *r*) with our several retention related outcome variables, and the strength of those relationships. **Table 3** presents our findings. As expected, TLCC-embedded outcomes and constructs had moderately strong correlations.

Table 3

Correlations of Retention Related Outcome Variables and TLCC Construct Scale Scores

Retention Related Outcomes with all TLCC Constructs Pearson's *r,* N ~ 27,000 all correlations statistically significant at p < .001	good place to work	good place to learn	Satisfied with recog-nition	General Reflection	stay in school	Turnover rate AY23
Professional Climate Scale Score	**0.80**	**0.68**	**0.74**	0.31	-0.05	-0.05
Support for Own Wellbeing Scale Score	**0.70**	**0.61**	**0.66**	0.35	-0.07	-0.08
Staff Leadership Scale Score	**0.70**	**0.58**	**0.67**	0.29	-0.05	-0.06
Student Behavior Scale Score	**0.63**	**0.65**	**0.54**	0.24	-0.07	-0.07
Instructional Practice: Shared Responsibility for Learning Scale Score	**0.58**	**0.59**	**0.55**	0.22	-0.06	-0.07
Professional Development Scale Score	**0.57**	**0.51**	**0.59**	0.23		
Instructional Practice: Supportive Conditions Scale Score	**0.57**	**0.53**	**0.55**	0.25	-0.10	-0.11
Instructional Practice: Meeting Diverse Student Needs Scale Score	**0.53**	**0.56**	**0.49**	0.22	-0.10	-0.11
Staff Evaluation Scale Score	**0.53**	**0.44**	**0.56**	0.23		
Student Supports (incl wellbeing) Scale Score 24	**0.51**	**0.51**	**0.48**	0.20	-0.06	-0.06
Time Scale Score 24	**0.46**	**0.41**	**0.48**	0.20	-0.04	-0.04

Table 4 below presents the results of linear regression analyses of TLCC-embedded outcome variables, noting the amount of variance in each outcome that can be explained by the regression model. In addition to the regression results presented in Table 4, we calculated Construct Importance, shown below for the outcome variable, "I would recommend this school as a good place to work." The two analyses provide complementary ways of understanding the results. The regression model's Adjusted R^2 indicates how much of the variation in the outcome can be explained collectively by the TLCC constructs. For example, among teachers with 2+ years of experience, the model explains 69% of the variation in ratings of whether the school is a good place to work. The beta coefficients identify which constructs are the strongest unique predictors of that outcome when all constructs are considered together. In this example, Professional Climate is the strongest predictor, followed by Support for Own Wellbeing and Student Behavior (supports).

Table 4

Regression analysis results, TLCC constructs with TLCC outcome variables

Outcome variable	Overall model	Key Constructs predicting outcomes	Beta	Sign.
General Reflection (good place to work, to learn, satisfied w/ recognition)	**Teachers, 2+ years' exp:** Adjusted R^2 = .731 (73% explained), p < .001	Professional Climate	0.462	<.001
		Student Behavior	0.194	<.001
		Support for Own Wellbeing	0.185	<.001
	First-year teachers: Adjusted R^2 = .748 (75% explained), p < .001	Professional Climate	0.411	<.001
		Support for Own Wellbeing	0.248	<.001
		Student Behavior	0.135	<.001
"I would recommend this school as a good place to work."	**Teachers, 2+ years' exp:** Adjusted R^2 = .691 (69% explained), p < .001	Professional Climate	0.493	<.001
		Support for Own Wellbeing	0.234	<.001
		Student Behavior	0.121	<.001
	First-year teachers: Adjusted R^2 = .665 (67% explained), p < .001	Professional Climate	0.544	<.001
		Student Behavior	0.224	<.001
		Support for Own Wellbeing	0.166	<.001
"I would recommend this school as a good place for students to learn."	**Teachers, 2+ years' exp:** Adjusted R^2 = .566 (57% explained), p < .001	Professional Climate	0.283	<.001
		Student Behavior	0.264	<.001
		Support for Own Wellbeing	0.202	<.001
NOTE: the TLCC item "good place for students to learn" is also consistently predictive of CMAS scores.	**First-year teachers:** Adjusted R^2 = .577 (58% explained), p < .001	Professional Climate	0.369	<.001
		Student Behavior	0.309	<.001
		Support for Own Wellbeing	0.093	<.001

Table 5 presents regression analysis findings for school-level retention related variables of interest. We note that while the variance explained by these models (the adjusted R^2) are small, consistent with literature, there are many factors related to turnover that are not directly related to teachers' views of teaching and learning climate or within teachers' or leaders' influence (such as budget cuts, needing to leave a location for reasons not in a teacher's control). For more details on this aspect of the research, please see TLCC User Guide: Educator Retention (Oxenford O'Brian, et al., 2026). Turnover rates do not vary greatly across schools (overall mean = 0.23, SD = .12) although there are schools at both the low and high ends of turnover rates. Because the Adjusted R^2 values are low, we do not present the construct importance figures in this report.

Table 5

Regression analysis results, TLCC constructs with school turnover outcome variables

Important: Beta weights presented here have been *reverse-scored* to more clearly present constructs as having an impact on *reducing* turnover.

Outcome variable	Overall model	Key Constructs predicting outcomes	Beta	Sign.
2023 school turnover rate	Adjusted R^2 = .071 (7% explained), p < .001	Instructional Practice: Meeting Diverse Student Needs	0.242	<.001
		Support for Own Wellbeing	0.150	0.005
		Instructional Practice: Shared Responsibility for Learning	0.125	0.038
		Instructional Practice: Supportive Conditions	0.120	0.014
Mean of school annual turnover rate, post COVID AY21 to AY23	Adjusted R^2 = .089 (9% explained), p < .001	Instructional Practice: Meeting Diverse Student Needs	0.266	<.001
		Support for Own Wellbeing	0.214	<.001
		Instructional Practice: Shared Responsibility for Learning	0.179	0.002

Construct Importance provides a different perspective. Rather than focusing only on the strongest unique predictors, it estimates how much of the total variance in the outcome is associated with each construct and includes all ten TLCC constructs. For example, while the regression analysis identifies Professional Climate as the strongest predictor of ratings that the school is a good place to work, the construct importance analysis shows that Professional Climate accounts for approximately 29.8% of the total variation in those ratings. Other constructs may have smaller beta coefficients or may not appear

among the strongest regression predictors yet still explain a meaningful portion of the total variance shown in the construct importance analysis.

In practical terms, the regression table helps identify which constructs matter most once the effects of other constructs are considered, whereas the construct importance figure shows how much each construct contributes to understanding overall differences in the outcome. Together, the two analyses provide a more complete picture of the factors most strongly associated with teachers' perceptions of their schools. **Figures 1 through 4** visually represent how constructs contributed overall to the retention outcome variables.

Figure 1

*Construct Contributions to Total Variance of Outcome Variable Rating of School as **Good Place to Work**, Teachers with 2+ Years of Experience*

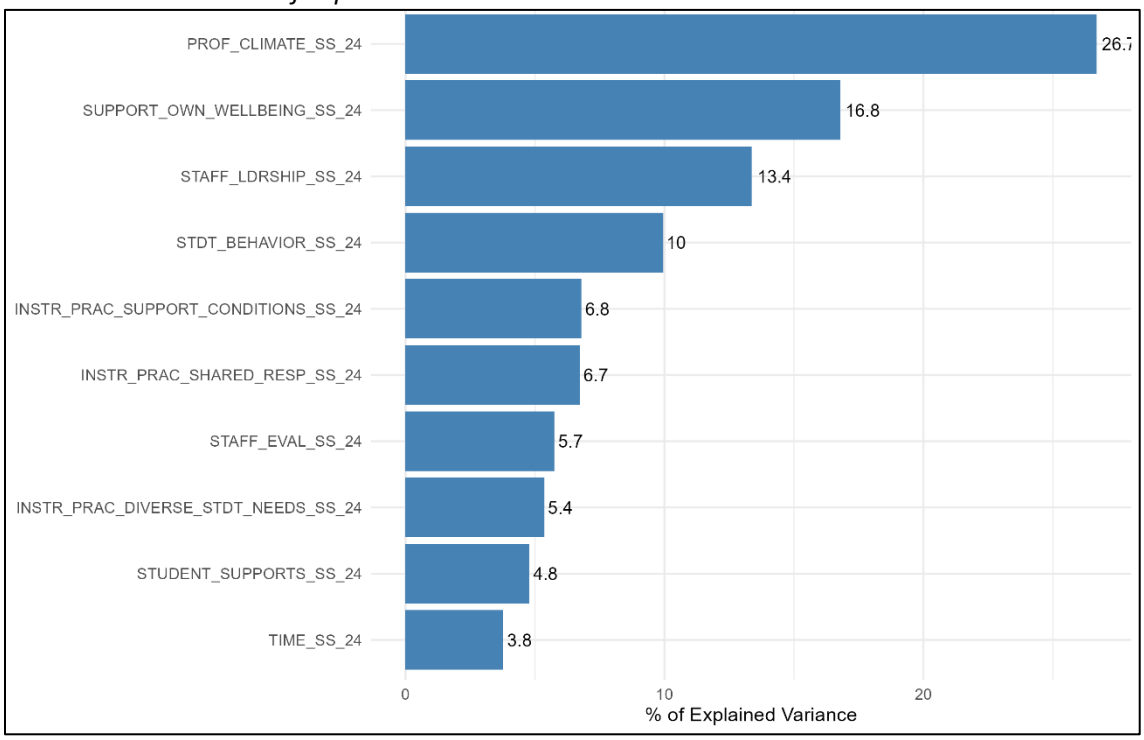


Figure 2

*Construct Contributions to Total Variance of Outcome Variable Rating of School as **Good Place to Work**, First-Year Teachers*

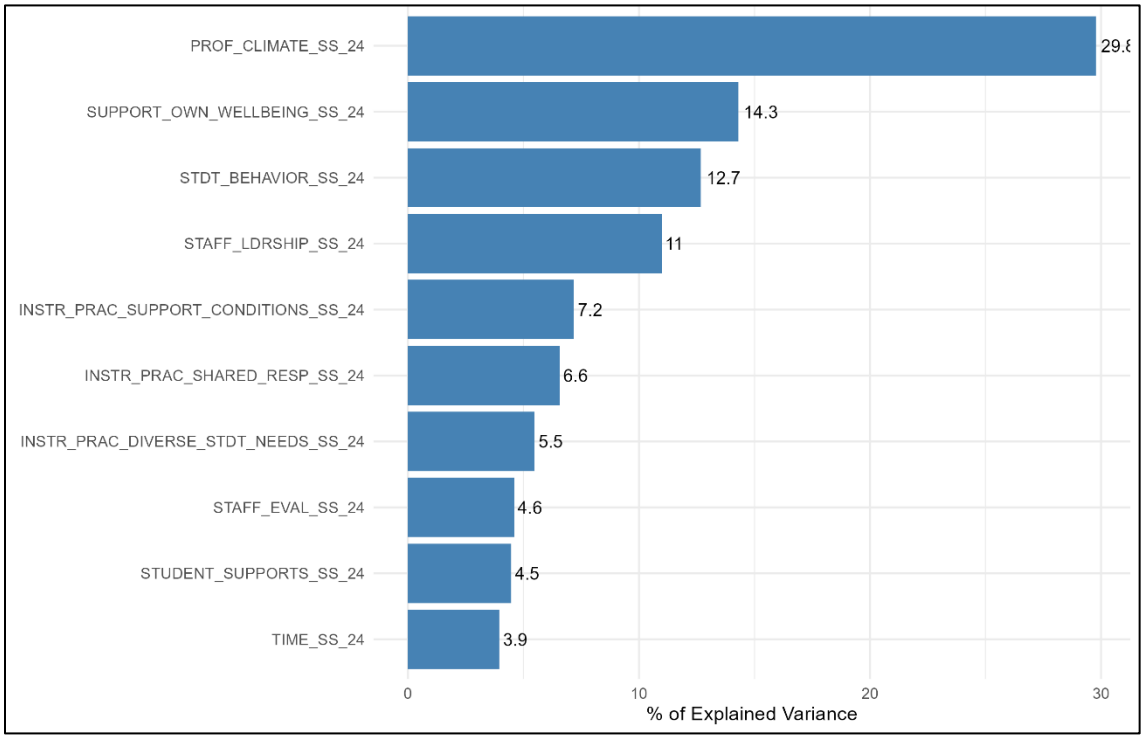


Figure 3

*Construct Contributions to Total Variance of Outcome Variable Rating of School as **Good Place to Learn**, Teachers with 2+ Years of Experience*

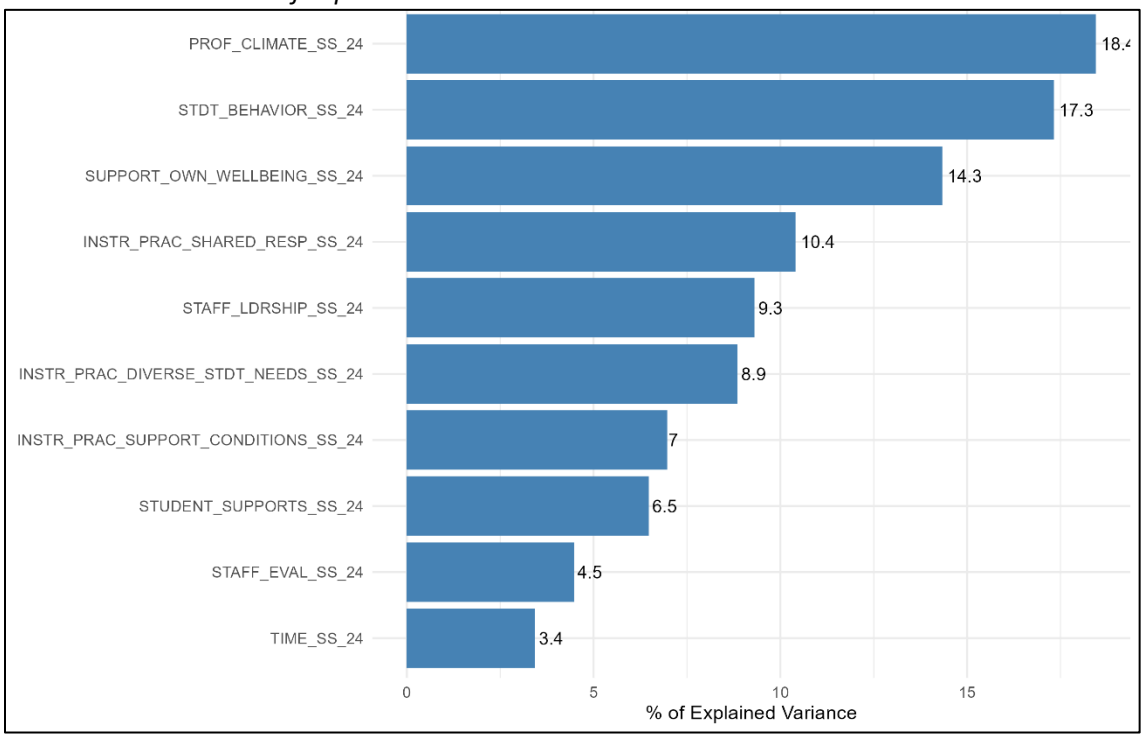
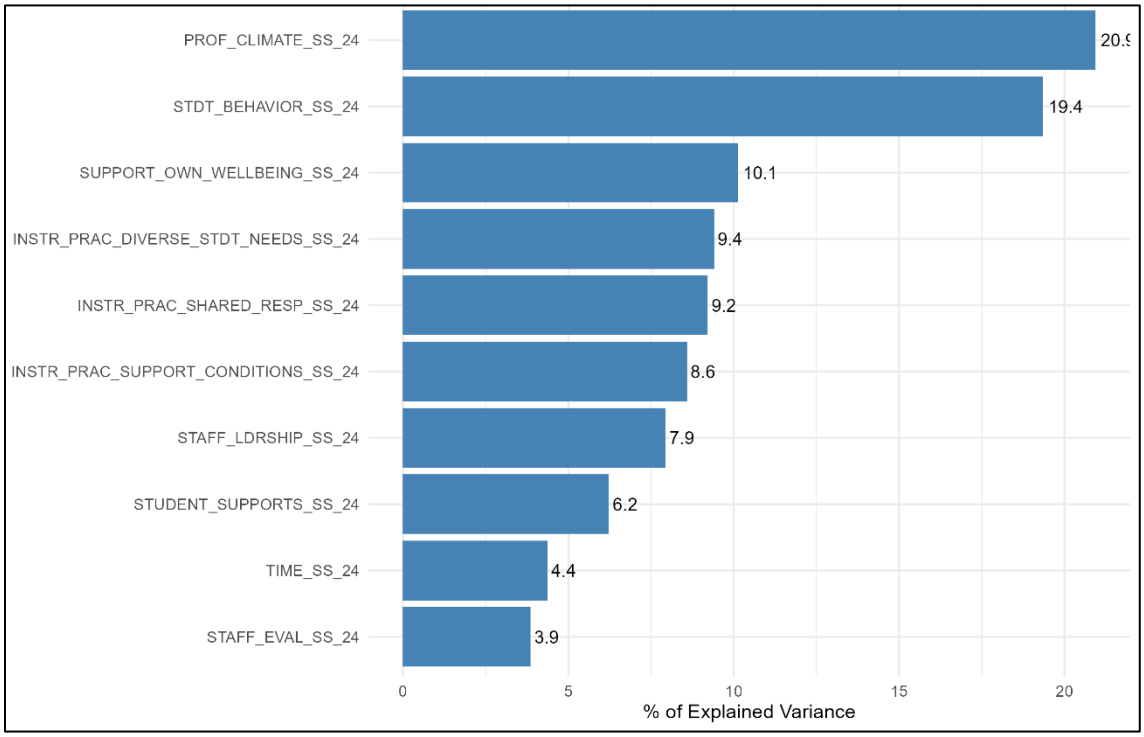


Figure 4

Construct Contributions to Total Variance of Outcome Variable Rating of School as ***Good Place to Learn****, First-Year Teachers*



Regression Analyses of Predictive TLCC Constructs and Items

To contribute to the TLCC user guides to help leaders and teachers identify short- and medium-term improvement insights after identifying TLCC constructs of significance, we conducted construct-specific regression analyses of the items comprising each key construct. This provides a contextual understanding of which items most strongly correlate with the retention-related outcome variables that are captured by the TLCC data.

While we also examined 2022 TLCC data for confirmation of the items-to-construct patterns, it is important to remember that constructs are more stable over time; items comprising the construct scale scores ***must be considered together*** to capture the latent concept represented by the construct. Therefore, while we expect general construct-level patterns to continue year by year, school and district sites are likely to have different configurations of within-construct item results. School and district personnel should consider the following regression analysis results as overarching insights and guidance, while looking to their own site-specific results for guidance about ideas for local actions.

Additional Focus on 1st-Year Teachers

Why examine first-year teachers separately?

First-year teachers warrant separate examination because they occupy a distinctive position in the educator workforce. They experience higher rates of attrition, are often employed in schools facing greater organizational and contextual challenges, represent substantial district investments, and increasingly enter teaching through diverse preparation pathways that may heighten their reliance on

school-based supports. Together, these factors make the experiences of first-year teachers particularly consequential for educational improvement, workforce stability, and long-term staffing policy.

Reason 1: First-Year Teachers Are More Vulnerable to Attrition

Research continues to identify the beginning years of teaching as the period of greatest vulnerability to teacher mobility and attrition. Studies of early-career teachers consistently find that novice teachers are substantially more likely than experienced teachers to leave their schools, transfer to other schools, or exit the profession altogether. Using statewide longitudinal data, Redding and Henry (2019) found that early-career teachers experience substantial rates of both within-year and end-of-year turnover, with approximately 6% leaving during the school year alone. Their findings reinforce longstanding evidence that teacher turnover is concentrated disproportionately among novice teachers (Tan, et al., 2026).

National studies similarly indicate that teacher turnover remains a persistent challenge. Using recent national teacher survey data, approximately 15% of U.S. teachers moved schools or left the profession between the 2020-21 and 2021-22 school years, with turnover rates generally highest among less experienced educators (Tan, et al., 2024; Ewing, 2021).

This vulnerability has important consequences because turnover imposes substantial financial, organizational, and instructional costs on schools and districts. Recent estimates suggest that replacing a teacher costs approximately $20,000 per teacher in many urban districts and roughly $25,000 per teacher in large districts when expressed in current dollars. These costs include recruitment, hiring, onboarding, induction, mentoring, professional development, and administrative staffing activities (Weins, et al., 2019).

Beyond direct expenditures, turnover disrupts instructional continuity, weakens collaborative professional cultures, reduces organizational memory, and can negatively affect student achievement and school improvement efforts. These consequences are often most pronounced in schools serving historically marginalized student populations, where turnover rates tend to be highest (Delgado & Castillo Vega, 2026). Accordingly, first-year teacher attrition should be viewed not merely as an individual workforce outcome but as a significant organizational, financial, and educational challenge.

Reason 2: First-Year Teachers Are Often Concentrated in More Challenging Educational Contexts

Our findings indicate that first-year teachers are not randomly distributed across schools, districts, and communities. Instead, they appear more likely to begin teaching in contexts characterized by greater economic need, higher staffing instability, and fewer organizational advantages. Compared with teachers having two or more years of experience, first-year teachers worked in schools located in lower-income neighborhoods (IPR = 362.94 vs. 399.69), with higher student poverty rates (54% vs. 48% FRL participation), higher teacher turnover (26% vs. 21%), and lower average faculty experience (11.20 vs. 12.51 years). First-year teachers also worked in districts with lower average salaries and in schools with slightly lower performance ratings and student growth indicators. All of these differences were statistically significant. **Table 6** presents the significant differences between first-year teachers and those with 2 or more years of experience. We note that while some of these descriptors of contextual challenges are smaller in difference, every one of them is lower for first-year teachers.

Table 6

School characteristics: comparing 1st year with 2+ years' experience teachers

	2+ years' experience		First year teachers		Cohen's d
	Mean	SD	Mean	SD	
income-to-poverty ratio (IPR), School Neighborhood Poverty Estimates CCD	399.69	160.65	362.94	149.19	-0.15
School turnover rate AY23	0.21	0.11	0.26	0.12	0.31
Mean of school annual turnover rate post COVID AY21 to AY23	0.22	0.08	0.25	0.08	0.29
mean experience = mean TLCC experience value / number of teachers in school	12.51	2.14	11.20	2.14	-0.61
schoolwide rating level of Teacher Quality Standard 2 (*Tchrs establish safe, inclusive & respectful learning environment for diverse population of students.*)	2.00	0.71	1.82	0.71	-.025
schoolwide rating level of Teacher Quality Standard 3 (*Teachers plan & deliver effective instruction & create environment that facilitates learning for their students.*)	2.00	0.70	1.81	0.70	-0.27
Average Teacher Salary (district wide), non-charter schools	$ 61,230	$ 10,111	$ 58,674	$ 10,271	-0.18
Aggregate % students on Free/Reduced price Lunch program	0.48	0.25	0.54	0.25	0.18
Aggregate % Hispanic/Latine students	0.36	0.23	0.40	0.23	0.12
School performance rating (red/orange/yellow/green)	3.53	0.73	3.37	0.83	-0.20

The practical significance lies less in any single difference between first year and more experienced teachers than in their cumulative impact. Across neighborhood, school, district, and workforce indicators, first-year teachers consistently appear concentrated in somewhat less advantaged educational settings. The evidence points to a "stacking" of contextual challenges; lower neighborhood income, higher student poverty, higher staff turnover, lower salary environments, and lower average faculty experience occur simultaneously. Particularly notable is the experiential context surrounding novice teachers. First-year teachers entered schools where the faculty composition was shifted toward less experience overall, including approximately eight percentage points more teachers in the first five years of their careers and approximately 7.5 percentage points fewer teachers with 11 or more years of experience. For school and policy leaders, this pattern suggests a potential support mismatch: the teachers most likely to require mentoring, induction, and organizational stability are disproportionately entering schools where those supports may be least available internally (Holme et al., 2024; National Education Policy Center, 2024; Redding & Henry, 2020; Shakrani, 2008).

Reason 3: Schools and Districts Have Significant Investments in New Teachers

Schools and districts invest substantial resources in recruitment, onboarding, induction, mentoring, and professional learning of beginning teachers. Although many turnover-cost studies estimate replacement

expenses across all teachers, induction-related supports are concentrated disproportionately during the first years of employment, making novice teachers among the most resource-intensive employees to develop. Research consistently identifies recruitment, hiring, onboarding, mentoring, induction, and professional development as major components of district investments in new teachers (Tan & Kemper Patrick, 2024).

These investments are made with the expectation that teachers will remain in the profession and continue contributing to the schools and districts that supported their development. Studies of mentoring and induction programs demonstrate that districts devote substantial resources to improving novice-teacher effectiveness and retention because the first several years of teaching represent a critical developmental period (Feng & Sass, 2017).

Attrition during the first years of teaching therefore represents not only the loss of personnel but also the potential loss of investments in induction, mentoring, and professional learning before districts have fully realized the returns on those investments. This concern may be particularly relevant for novice teachers because induction and mentoring expenditures are generally most intensive during the first year of employment. At the same time, research indicates that teacher effectiveness often grows substantially during the first three to five years of teaching, suggesting that districts lose both financial investments and anticipated long-term gains when teachers depart early (Carver-Thomas & Darling-Hammond, 2017).

More recent estimates of turnover costs also indicate that prior estimates from Barnes et al. (2007) likely understated current financial impacts. Contemporary analyses place the average cost of replacing a teacher at approximately $20,000 to $25,000 per teacher in urban and large districts, reflecting increases in staffing, recruitment, onboarding, and training expenditures (Tan & Patrick, 2024; Wiens et al., 2019).

Attrition during the first years of teaching can therefore represent the loss of both financial and human capital). Studies in the turnover-cost literature estimate replacement costs ranging from approximately $4,366 per teacher in small rural districts to nearly $18,000 in large urban systems, with national costs reaching billions of dollars annually. **Table 7** summarizes these from several sources.

Table 7

Recent Estimates of Teacher Turnover Costs

Estimate	Source
Up to approximately $20,000 per teacher	Carver-Thomas & Darling-Hammond (2019)
Approximately $25,000 per teacher (2024 dollars) in large districts	Tan et al. (2026)
Major cost categories include recruitment, hiring, onboarding, induction, mentoring, and professional development	Levy et al. (2012); Carver-Thomas & Darling-Hammond (2019)

Equally important are the less easily quantified organizational losses associated with teacher turnover. Research suggests that frequent turnover weakens professional relationships, disrupts collaborative improvement efforts, increases demands on school leaders and remaining staff, and reduces schools' capacity to develop and sustain instructional expertise. High-turnover schools may repeatedly invest in induction and mentoring for new teachers only to lose those teachers before the schools fully benefit from their professional growth and accumulated institutional knowledge. From this perspective, retaining first-year teachers is not simply a staffing concern but also a strategy for protecting organizational investments and strengthening long-term school capacity (Delgado & Castillo Vega, 2026; Feng & Sass, 2017).

Reason 4: First-Year Teachers Often Depend More Heavily on Organizational Capacity

First-year teachers increasingly enter classrooms through a variety of preparation pathways, including traditional, alternative, and emergency credentialing routes. As a result, incoming teachers may vary considerably in their prior preparation, classroom experience, and familiarity with school systems. Research suggests that novice teachers rely more heavily on mentoring, administrative support, collaboration with colleagues, and structured induction than experienced teachers (Shakrani, 2008; Ingersoll & Smith, 2004). Studies consistently find lower attrition among beginning teachers who receive comprehensive support, mentoring, and induction opportunities.

This dependence on organizational support makes first-year teachers especially sensitive to school conditions. Administrative support, collegial collaboration, professional learning opportunities, and access to experienced colleagues are among the strongest school-level predictors of teacher retention identified in the literature. Consequently, first-year teachers provide a particularly useful lens through which to examine whether schools possess the organizational capacity necessary to support educators and sustain workforce stability over time.

Key Takeaways Across the Literature

According to the turnover and retention literature, three themes emerge consistently. First, beginning teachers are substantially more vulnerable to attrition than experienced teachers, making the first years of teaching a critical retention period. Second, turnover is disproportionately concentrated in higher-poverty, lower-performing, and higher-turnover schools, creating a recurring cycle in which the schools facing the greatest educational challenges also experience the greatest workforce instability. Third, teacher attrition imposes substantial costs extending beyond recruitment and hiring expenses to include lost instructional capacity, reduced organizational memory, diminished professional collaboration, and negative impacts on student achievement. Consequently, retaining first-year teachers is both a workforce-development strategy and a school-improvement strategy.

Data Used for Analyses by Experience Levels

To decide on this split of novices vs. experienced, we ran *t*-tests of construct scale-score differences between 1st-year novices and those with 2-3 years' experience and those with 4+ years in career and found statistically significant differences with small-to-medium effect sized for all constructs.

We also compared novices having 2-3 years' experience with teachers 4+ years in career, and found *no significant differences* for Professional Climate, Student Behavior, Time, Support for Own Wellbeing, and

General Reflection constructs. While statistically significant, the remaining six constructs had trivial effect sizes, with all but one (staff evaluation, Cohen's *d* = .155) less than Cohen's *d* = .09. We therefore split the group by true first-year teachers and all others.

Contribution of Items to Their Constructs

For the three TLCC constructs identified as strongly related to teacher retention across the TLCC outcome variables—Professional Climate; Support for Own Wellbeing; and Student Behavior (supports)—we present in **Tables 8 through 10** the amount of explanatory value that each of the items comprising the constructs provides to the construct scale score.

In addition, the three Instructional Practices TLCC constructs—Shared Responsibility for Learning; Meeting Diverse Student Needs; and Supportive Conditions—were related to both our MAIHDA analysis of intersectional school contexts and capacity to support Academic Achievement and Wellbeing. Thus, we also present the item-to-construct findings for the Instructional Practices constructs in **Tables 11 through 14 below**.

Although the analyses in the following section examine item-level relationships, leaders should remember that the primary unit of interpretation remains the construct. This is especially true for the three Instructional Practices constructs: Shared Responsibility for Learning, Meeting Diverse Student Needs, and Supportive Conditions. These constructs emerged not only as components of the MAIHDA capacities but also as school-level predictors in analyses of teacher retention and student achievement outcomes. Because they are derived from aggregated schoolwide TLCC responses, they should be interpreted as indicators of school organizational capacity rather than individual teacher characteristics.

Because all six of these constructs vary by first-year and 2+ years' experience groups, we show the item-specific variability by these teacher groups in all tables.

Interpreting the Item-Level Tables

The following tables present the relationship between individual survey items and two retention-related outcome variables: teachers' ratings of their school as a good place to work and a good place for students to learn. These analyses were conducted separately for first-year teachers and teachers with two or more years of experience to explore possible differences across career stages.

These findings must be interpreted as contributions to a construct rather than as independent predictors. The adjusted R^2 value shown near the top of each table indicates how well the complete set of items explains variation in the outcome. Collectively, the items within these constructs explain substantial portions of the variation in teachers' ratings of their schools, indicating that the constructs themselves are strongly related to these outcomes.

The beta values should be interpreted as the unique contribution of each item after accounting for the contribution of all other items within the same construct. Consequently, smaller beta values should not be interpreted as evidence that an item is unimportant. In fact, items with smaller beta values may still be essential components of the underlying construct. The statistical model is asking which items provide information that is not already captured by the other items in the scale. Items with larger beta values

contribute unique explanatory value, whereas items with smaller beta values may overlap substantially with other items that represent similar aspects of the same construct.

For this reason, leaders should avoid treating these findings as a ranking of "most important" survey items. Instead, the construct should remain the primary unit of interpretation that captures the broader latent concept that the collection of items was designed to measure. The **item-level results are best viewed as diagnostic information that can help leaders identify specific aspects of a construct** that may warrant closer attention when a construct emerges as an area of strength or concern.

Table 8

TLCC Construct, Professional Climate Construct, by Experience

Professional Climate Construct Items With good place to work, good place to learn *Shading and bold font highlight key items below*	**"Good place to work"**		**"Good place to learn"**	
	First-year teachers	**2+ years experience**	**First-year teachers**	**2+ years experience**
	Model adjusted R^2 (all $p<.001$)			
	.679	.681	.585	.532
	Beta weights by outcome variable			
This school is led by an effective team.	.270	.273	.058	.160
Our work together is guided by a shared vision that is student focused.	.082	.087	.191	.137
School staff show respect for each other.	.085	.090	.068	.087
I regularly engage with colleagues at my school.	.074	.064	.054	.097
Staff feel comfortable raising important issues with school leaders.	.072	.103	n.s.	.018
Leadership puts staff suggestions into operation.	n.s.	.039	.0137	.060
Leadership works to build trust among staff.	.103	.110	n.s.	n.s.
Our school is a safe place to work.	.251	.238	.337	.337

These are consistently among the strongest unique contributors across both experience groups and both outcome variables. The findings suggest that professional climate is strongly connected to perceptions of leadership effectiveness, workplace safety, and trust-building behaviors rather than collaboration alone.

One interesting finding is that "School leadership puts suggestions made by staff into operation" is nonsignificant for first-year teachers regarding good place to work. Several voice-related leadership items become much less influential after accounting for leadership effectiveness and trust. That could suggest that broad perceptions of leadership quality may matter more than any single leadership practice.

Table 9

TLCC Construct, Support for Own Wellbeing, by Experience

Support for Own Wellbeing Construct Items With good place to work, good place to learn *Shading and bold font highlight key items below*	**"Good place to work"**		**"Good place to learn"**	
	First-year teachers	**2+ years experience**	**First-year teachers**	**2+ years experience**
	Model adjusted R^2 (all p<.001)			
	.527	.551	.411	.417
	Beta weights by outcome variable			
I feel like I belong at my school.	.386	.383	.277	.251
My work at this school makes me feel satisfied.	.238	.327	.262	.330
I have at least one colleague at school that I trust.	n.s.	n.s.	.040	.025
If I was concerned about my mental health, I would have access to the support I need.	.194	.130	.168	.136

The strongest pattern is that belonging and work satisfaction consistently contribute more unique explanatory value than access to colleagues or even mental health supports. It is interesting to note that "I have at least one colleague at my school that I trust" is not significant for the "good place to work" outcome for both experience groups and contributes very little to good place to learn. We would not interpret this as trust being unimportant. Rather, it suggests that trust in a single colleague is largely embedded within broader feelings of belonging and job satisfaction that are already captured elsewhere in the construct.

Table 10

TLCC Construct, Student Behavior, by Experience

Student Behavior Construct Items *With good place to work, good place to learn* *Shading and bold font highlight key items below*	**"Good place to work"**		**"Good place to learn"**	
	First-year teachers	**2+ years experience**	**First-year teachers**	**2+ years experience**
	Model adjusted R^2 (all p<.001)			
	.422	.417	.464	.458
	Beta weights by outcome variable			
Students know how they are expected to act.	.133	.070	.156	.098
Students have the behavioral supports needed to focus on learning.	.142	.114	.126	.114
Rules for student behavior are enforced in a consistent manner.	.096	.162	.077	.100
This school is a safe place for students to learn.	.314	.321	.363	.386
Students have at least one adult they can trust to support social, emotional, and personal concerns.	.100	.108	.097	.109

"This school is a safe place for students to learn" is clearly dominant across both teacher groups and for both outcomes. A practical interpretation is that teachers appear most influenced not simply by student behavior itself, but by whether student behavior systems create a safe learning environment.

Table 11

TLCC Construct, Instructional Practices: Shared Responsibility for Learning, by Experience

Instructional Practices: Shared Responsibility for Learning Items *With good place to work, good place to learn* *Shading and bold font highlight key items below*	**"Good place to work"**		**"Good place to learn"**	
	First-year teachers	**2+ years experience**	**First-year teachers**	**2+ years experience**
	Model adjusted R^2 (all p<.001)			
	.337	.388	.377	.385
	Beta weights by outcome variable			
Staff in this school consistently seek new and improved ways of providing instruction.	.124	.088	.104	.080
Staff in this school hold themselves accountable for the academic growth of every child.	n.s.	.057	.083	.112
The school provides opportunities for me to learn from other teachers.	.255	.278	.154	.187
Students understand how class activities relate to learning objectives.	n.s.	.030	.118	.102
The school's efforts to engage families are individualized based on student needs.	.165	.204	.182	.175
School provides interactive strategies families can use at home to support their children's learning.	n.s.	.080	.121	.106
School utilizes two-way communication methods in families' home language to share what is happening in the school.	.085	.095	.062	.090

The largest contributor by a substantial margin is "The school provides opportunities for me to learn from other teachers," especially for first-year teachers. It is also interesting that for first-year teachers, the following are not statistically significant, even though the dataset is large for this statistical test (n ~ 1,500).

- Staff hold themselves accountable for growth of every child
- Students understand how activities relate to objectives
- Interactive family support strategies

These findings suggest that novice teachers may be influenced less by schoolwide instructional systems and more by opportunities to learn directly from colleagues.

Table 12

TLCC Construct, Instructional Practices: Meeting Diverse Student Needs, by Experience

Instructional Practices: Meeting Diverse Student Needs Items *With good place to work, good place to learn* *Shading and bold font highlight key items below*	**"Good place to work"**		**"Good place to learn"**	
	First-years	**2+ years**	**First-years**	**2+ years**
	Model adjusted R^2 (all p<.001)			
	.328	.321	.394	.349
	Beta weights by outcome variable			
Instruction in this school encourages different cultural viewpoints.	.115	.094	.090	.084
The diverse academic needs of our students are met by this school's current curriculum.	.181	.134	.184	.153
Multilingual learners are adequately supported.	n.s.	.038	.051	.031
Students with disabilities are adequately supported in this school.	.085	.125	.106	.116
Gifted students are adequately supported.	.074	.093	.168	.141
Students' social and emotional learning is adequately supported in this school.	.213	.242	.183	.234

Here, the item, "Students' social and emotional learning is adequately supported in this school" is consistently the strongest contributor across every model. Other notable contributors are "Diverse academic needs are met" and "Instruction encourages different cultural viewpoints." It is interesting that "Multilingual learners are adequately supported" is not significant or of minimal contribution within the larger construct. This likely reflects overlap with the other supports, rather than lack of importance.

Table 13

TLCC Construct, Instructional Practices: Supportive Conditions, by Experience

Instructional Practices: Supportive Conditions Items *With good place to work, good place to learn* *Shading and bold font highlight key items below*	**"Good place to work"**		**"Good place to learn"**	
	First-years	**2+ years**	**First-years**	**2+ years**
	Model adjusted R^2 (all p<.001)			
	.372	.385	.362	.316
	Beta weights by outcome variable			
Teachers have autonomy to make important decisions in their classrooms.	n.s.	.078	.091	.050
Teachers feel supported in trying new instructional strategies.	.316	.371	.187	.277
Teachers use formative assessment data to improve their students' learning.	.059	.028	.135	.085
Class sizes/number of students is reasonable.	.060	.039	.079	.029
Instructional resources are adequate to support student learning.	.213	.159	.228	.178
Teachers and support personnel have adequate physical space to work productively.	n.s.	.064	n.s.	.076
An external substitute (not staff) is readily available when teachers need to take leave.	.152	.125	.128	.131

For Supportive Conditions (for instruction), the strongest contributor by far for first-years is "Teachers feel supported in trying new instructional strategies," which also contributes importantly to more experienced teachers, but less so. Other key contributors in all models were "instructional resources" and availability of substitutes. It is interesting that first-year teachers have not-significant contributions from "teacher autonomy" and "adequate workspace." This may suggest that first-year teachers may care less about autonomy and more about the support and resources necessary to be successful. Experienced teachers appear somewhat more sensitive to autonomy and organizational supports.

Summary

Across all six constructs, several common patterns emerge. First, the item-level analyses reinforce the construct-level findings by showing that teacher perceptions are influenced most strongly by conditions that support effectiveness, belonging, safety, trust, and professional growth. Second, although first-year and more experienced teachers often share similar patterns, novice teachers appear particularly responsive to items associated with support, learning opportunities, and successful classroom implementation, whereas experienced teachers show somewhat greater sensitivity to broader organizational conditions. Third, many items that educational leaders might assume to be highly influential demonstrate relatively small unique contributions once related items within the construct are considered simultaneously, highlighting the importance of examining school conditions as interconnected systems rather than isolated practices.

These findings also provide a bridge to the next stage of the analysis. While the tables in this section identify the specific experiences within important TLCC constructs that are most closely associated with positive perceptions of schools, they do not directly address whether teachers intend to stay or leave. The next section therefore moves from ratings of schools to teachers' reported plans and motivations, examining how educators describe their intentions for the following school year and the reasons they identify as most influential in those decisions.

Stage 2: Analysis of Next-Year Plans and Reasons

Two available indicators of retention-related plans within the TLCC survey are the items:

- *Which of the following best describes your plans after the end of this school year?*
- *Which of the following most affects your decision about whether to continue working at this school?*

Analysis of plan selected for the following school year

In the 2024 TLCC, respondents selected only one of these options regarding their plans for next year:

1. Continuing in current role in this school.
2. Continue teaching in district but not in this school.
3. Continue teaching but not this district.
4. Continue in education but in administrative position.
5. Continue in non-administration, non-teaching post.
6. Leave field of education.
7. Retire.

For analysis purposes, we compared #1, planning to continue teaching with the school, with #2 and #3. Our assumption is that options 4 through 6 are likely to be beyond the influence of leadership or other staff. This allows us to focus just on issues of staying vs. moving within district, which is not uncommon, vs. staying a teacher but leaving both school and district, which may be the most potentially impactful area for organizational change to retain teachers more effectively. Most teachers (83%) answered that they expected to stay in their current teaching role in the coming year, as shown in **Table 14**. Overall, **92% of respondents intend to remain teaching** in some location.

Table 14

Frequency of teachers selecting each next year's plan option.

Which of the following best describes your plans after the end of this school year?	Frequency	Valid %
Continue in current role [teaching] in this school	23,641	**83**
Continue teaching in district but not in this school	1,397	**5**
Continue teaching but not this district	1,044	**4**
		92%
Continuing in education but in administrative position	252	1
Continuing in non-administration, non-teaching post	423	1
Leave field of education	1,051	4
Retire	548	2
TOTALS:	28,356	100

We next checked whether there was a relationship among the plans (regrouped into stay, move within district, leave district), and whether reasons were highly in common. **Table 15** presents the correlations of plans and the top three reasons identified, evaluating the statistical significance of relationships.

Table 15

Correlation of plans and the top three reasons selected by respondents

There was a statistically significant association between plans and reasons, $\chi^2(14) = 437.141$, $p < .001$			
	School leadership	School staff	Salary
Plan: Stay in Current School in Teaching Role	33.7%	31.9%	14.6%
Plan: Leave the School but Remain Teaching	46.0%	16.2%	15.1%
Plan: Leave Teaching (e.g., move to administration, retire, leave profession)	32.5%	18.0%	21.7%

Regarding what is keeping teachers in their current school in teaching role, two-thirds (66%) report that the climate generated by school leadership and staff are the main influences. By contrast, about the same proportion (62%) report a negative influence of leadership and staff as the main reason for leaving the school but continuing as a teacher. While about the same percentage of teachers, ~15%, note salary as both keeping them in a school and influencing their leaving a particular school, ~22% who plan to leave teaching cite salary as a main reason.

Analysis of most influential reason for next year's plan selection

To better understand the motivations for planned "stayers," "movers," and "leavers," we compared these groups for their selections of the reasons offered for leaving. Respondents selected only one of these options regarding their reason for their next year's plans:

1. Length of the workday
2. Facilities and resources
3. Community support and engagement
4. School staff
5. School leadership
6. School mission
7. District leadership
8. Salary

Because of our focus on developing understandings of the data that can provide helpful insights to school and district leaders, we further classified the reason options into potentially malleable in the short- or medium- term, and those that would be long-term or for which school and/or district leaders may have little or no control. Reason choices that are potentially malleable at school level:

- Length of workday (limited options available, but can be impacted)
- Community support & engagement (school processes can influence)

- School staff (assumed by TLCC to resonate with items about staff respect/collaboration/leadership)
- School leadership (assumed to resonate most with items about professional climate)

Items unlikely to be malleable, at least near- or medium-term, at school level:

- Facilities & resources
- School mission
- District leadership
- Salary

Most teachers (60%) answered that the most important reason for continuing at their school was School Staff or School Leadership, as shown in **Table 16**.

Table 16
Reasons selected for next year's plans

Which of the following most affects your decision about whether to continue working at this school?	Frequency	Valid %
Length of the workday	1,187	4
Facilities and resources	1,247	4
Community support and engagement	1,240	4
School staff	**7,688**	**27**
School leadership	**9,275**	**33**
School mission	902	3
District leadership	1,703	6
Salary	4,974	18
TOTALS:	28,216	100

Applying our assumptions about which reasons may be malleable to affect whether a teacher stays in a school or leaves to teach elsewhere, we find that 94% of respondents staying or leaving are selecting a potentially malleable reason as the main influence on their choice, as shown in **Table 17**.

Table 17
Reasons for staying or leaving a school but remaining a teacher.

	Frequency	Valid %
Stay, citing malleable reasons	10,005	35
Leave, citing malleable reasons	16,394	58
Leave, citing non-malleable reasons	1,817	6
TOTALS:	28,216	100

Stage 3: TLCC and Retention Outcomes in Contexts

The previous sections focused primarily on relationships between teachers' perceptions of school conditions and retention-related outcomes. In this section, we broaden the lens to examine the contexts in which schools operate. Schools are embedded within district organizational environments, communities, student populations, and labor markets that can influence both educators' experiences and their retention outcomes. Understanding these contextual factors provides an important additional perspective because retention is shaped not only by what occurs within schools, but also by the conditions surrounding them. At the same time, context should not be interpreted as destiny. Many schools serving students facing substantial challenges nevertheless create positive working environments and retain educators successfully. Our goal is therefore not to identify factors that determine retention, but rather to identify contextual patterns that may help explain why some schools face greater retention challenges than others. These analyses also provide a foundation for the intersectional capacity analyses presented later in this section, where combinations of contextual factors are examined simultaneously rather than one at a time.

Student Demographics

Before examining more complex models, we first explored relationships between a variety of student, school, community, and turnover-related variables and teachers' ratings of their schools. These analyses should be interpreted with considerable caution. The purpose is not to suggest that student groups, communities, or demographic characteristics cause teachers to stay or leave. Rather, these variables often serve as indicators of broader educational and social conditions that may co-occur within schools.

For example, a negative correlation between the percentage of students eligible for free or reduced-price lunch and teacher ratings of a school should not be interpreted as evidence that poverty itself causes less-positive perceptions. Instead, schools serving larger proportions of students experiencing poverty may simultaneously face other challenges, such as greater student mobility, increased service needs, resource constraints, or greater demands on educators. Similarly, demographic variables such as the percentage of English learners or students from racial or ethnic groups may reflect broader patterns of resource allocation, historical inequities, community opportunity structures, or differences in the educational contexts in which schools operate. These variables should therefore be viewed as contextual markers that frequently occur alongside other conditions rather than as explanations in themselves.

Table 18 presents correlations between school-level characteristics and teachers' ratings of their schools as good places to work and good places for students to learn. To make the findings easier to interpret, the table reports the squared correlation value (r^2), which represents the percentage of variation in teacher ratings that is statistically associated with each contextual characteristic.

For non-technical readers, a useful way to think about these values is as *indicators* rather than *causes*. Larger percentages suggest that a variable tends to occur more frequently alongside positive or negative teacher perceptions. Smaller percentages indicate weaker relationships. For example, if attendance rate explains approximately 7% of the variation in ratings of schools as good places for students to learn, it suggests that schools with higher attendance rates are somewhat more likely to receive positive ratings from teachers. It does **not** mean that increasing attendance alone would necessarily improve teachers'

perceptions, nor does it imply that attendance is the primary driver of those perceptions. Many of these variables are interrelated and often occur together within broader school and community contexts. As a result, the table should be interpreted as identifying contextual patterns rather than direct causes of teacher attitudes or retention outcomes.

For ease of interpretation, we present here the r^2 value of the Pearson's *r* to highlight the *proportion of variance explained*. Because squaring *r* removes the direction of the correlation, we note that below in the split table, **Table 18**.

Table 18
Correlational analysis of student demographic variables with teacher reflection items

School aggregate student variables with positive correlation:	r^2: recommend school as **good place to work** *(% explained)*	r^2: recommend school as **good place for students to learn** *(% explained)*
Percent White Students	4.0	7.6
Attendance Rate AY23	3.6	7.2
Percent Migrant Students	0.7	1.6
School aggregate student variables with negative (inverse) correlation:	0.0	0.0
Truancy Rate AY23	3.8	7.3
Percent Hispanic/Latine Students	3.0	6.1
Percent English Learners	2.9	5.2
Percent Students on F/RL	2.5	5.9
Volatility Turnover: post-pandemic	2.3	3.7
Percent Black/African American Students	2.0	3.3
Overall Volatility of Turnover since 2018	1.3	3.0
Title I designation	0.7	1.3
Volatility Turnover: pre-pandemic	0.5	1.8
PK12 Pupil Count	0.5	0.5
Percent Homeless Students	0.2	0.5
Pupil-Teacher Ratio	0.1	0.0

District Setting

While significant, the largest construct Beta-value in our regression of constructs with pre-pandemic volatility, post-pandemic volatility, and AY23 turnover rates were extremely small, all less than 0.03. However, we established above in this report that teachers' rating of their school as a good place to work is related to retention outcome variables to various extents, and here we found significant and strong relationships with TLCC constructs in the regression modeling. We present these below in **Table 19**, showing both the constructs with significant Beta values and by district settings. Of interest is that all share the same top three constructs as predictors of "good to work" ratings, but in remote settings

Support for Own Wellbeing is first and Professional Climate second, flipped in order from all other settings (bolded below).

Table 19

Regression results, TLCC Constructs and Rating of School as Good Place to work

	Linear regression		*Betas / significance:* beta = amount of 1-to-4 scale change with 1-point change in "good work" response		
SETTINGS	R^2	sign.	Prof Climate	Support Own Wellbeing	Student Behavior
ALL SETTINGS	0.681	<.001	0.462	0.367	0.17
DENVER METRO	0.688	<.001	0.457	0.363	0.177
OUTLYING TOWN	0.662	<.001	0.435	0.339	0.116
OUTLYING CITY	0.656	<.001	0.485	0.335	0.141
REMOTE	0.659	<.001	**0.337**	**0.438**	0.202
URBAN-SUBURBAN	0.677	<.001	0.496	0.395	0.184

School Level Intersectionality Contexts (MAIHDA)

The contextual analyses presented above examine school characteristics one factor at a time. While useful, this approach may overlook the reality that schools rarely experience these conditions independently. Student demographics, instructional conditions, staffing patterns, organizational supports, and community contexts occur together and may interact in ways that create unique school environments. To address this complexity, we applied a Multilevel Analysis of Individual Heterogeneity and Discriminatory Accuracy (MAIHDA) framework to examine how combinations of contextual factors operate simultaneously.

Rather than focusing on isolated characteristics, the MAIHDA analyses investigate how multiple conditions combine to create broader forms of organizational capacity. Two groupings of school characteristics emerged as key predictors of retention from this work: **Capacity to Support Wellbeing** and **Capacity to Support Academic Success**. These capacities help explain variation in teacher retention, educators' perceptions of their schools as positive places to work, and related student outcomes. Importantly, the same capacities appear across multiple outcomes, although different components of each capacity contribute differently depending on whether the outcome of interest is teacher retention, student behavioral incidents, or academic performance. The analyses that follow therefore move beyond individual contextual variables toward a more integrated understanding of how schools develop the organizational conditions that support educators and students alike.

As we did with student-level intersectional identities in the *TLCC User Guide: Student Academic Performance* (Oxenford O'Brian, et al., 2026), we analyzed school-level characteristics related to retention/turnover outcome variables as possibly intersecting and interacting influences in order to gain a more nuanced understanding of what is influencing teachers to stay in their school and current role, leave their school but stay in the district, leave the district but remain in teaching, and leave the profession.

Our analysis addressed two things simultaneously: 1) Confirming the school-level context variables most related to teacher retention, and 2) Examining within a MAIHDA multilevel intersectional variables that may be capturing additional influences of intersectionality related to teacher retention. We ran comparison models, per MAIHDA methods (see Evans et al., 2024; Evans et al., 2018), for the two stratum-level variables developed with a standard regression using the same variables that constructed those MAIHDA multilevel variables.

Intersectionality theory emphasizes that social outcomes are shaped by configurations of positions and structures that operate simultaneously rather than independently. While intersectionality emerged from analyses of *individual* social locations, subsequent scholarship has extended the framework to institutions, highlighting how organizations can occupy intersectional positions based on combinations of structural characteristics, resources, and constraints. From this perspective, schools are not merely collections of independent features, but socially situated institutions whose capacities are produced through interacting organizational characteristics.

MAIHDA is particularly well suited to modeling intersectionality at the institutional level because it allows between-institution variability to be decomposed into additive and intersectional components. Consistent with intersectionality theory, the goal is not to maximize individual predictor effects, but to identify whether combinations of institutional characteristics produce patterned differences that cannot be reduced to single dimensions alone. See our summary of MAIHDA methods, *Intersectionality and MAIHDA: Brief Overview* (Oxenford O'Brian & Anderson Seidel, 2026).

To construct two school-context MAIHDA variables, we assigned component variables to each construct based on our review of relevant research. We then used correlation, partial correlation, and regression analyses to examine a variety of school characteristics (including student demographics aggregated to the school level) and district and community contexts. We examined the inclusion of aggregate school-level Instructional Practice TLCC construct scores, as these were both identified as predictors of our retention-related outcome variables (see sections above) and students' state CMAS outcomes as discussed in TLCC Research Brief: Student Academic Outcomes (Anderson Seidel & Oxenford O'Brian, 2026). Other variables, while less influential, were significant, including mean expertise of TLCC teacher respondents in a school (assumed to be a relatively accurate school-wide estimate as the mean response rate was 89% of teachers within schools), school-wide ratings on state Teacher Quality Standards, ratios of pupils to teachers and to district-level counts of counselors, social workers, and psychologists, and estimates of the proportion of behavioral disruptions per classroom.

Eventually we fully specified two MAIHDA variables to include in the analysis, which we called *Capacity to Support Academic Success* and *Capacity to Support Wellbeing*. The component variables for each are provided in **Table 20**.

Table 20

Variables Comprising MAIHDA Intersectional Variables

Variables comprising MAIHDA "Capacity to Support Wellbeing"
1. Teacher Quality Standard 2: Teachers establish a safe, inclusive and respectful learning environment for a diverse population of students 2. *Schoolwide aggregate score* for TLCC Construct Instructional Practice: Meeting Diverse Student Needs 3. Ratio of students to counselor (district metric) 4. Ratio of students to social worker (district metric) 5. Ratio of students to psychologist (district metric) 6. *Schoolwide aggregate score* for TLCC Construct Instructional Practice: Shared Responsibility for Learning
Variables comprising MAIHDA "Capacity to Support Academic Success"
1. Teacher Quality Standard 1: Pedagogical content knowledge 2. Teacher Quality Standard 3: Teachers plan and deliver effective instruction and create an environment that facilitates learning for their students 3. Mean experience of responding teachers in school 4. *Schoolwide aggregate score* for TLCC Construct Instructional Practice: Supportive Conditions 5. Pupil / teacher ratio 6. Proportional disruptions per classroom

Before presenting the MAIHDA results, it is important to clarify how the three TLCC Instructional Practices constructs should be interpreted. Throughout this section of the report, **Shared Responsibility for Learning, Meeting Diverse Student Needs, and Supportive Conditions are examined as school-level aggregate constructs rather than as indicators of individual teachers' perceptions in isolation**. We used schoolwide average construct scores that characterize the collective instructional environment of a school. Consequently, the findings should be interpreted as reflecting organizational capacity and shared conditions within schools rather than the beliefs or experiences of any individual educator. This distinction is particularly important because these constructs emerged as key components of the MAIHDA capacities developed for this research, indicating that they represent meaningful aspects of schools' broader capacity to support teacher and student wellbeing, and academic success.

These three Instructional Practices constructs also warrant attention for a second reason. Across our broader TLCC research program, they have repeatedly demonstrated predictive value beyond teacher retention alone. In our analyses of state academic performance outcomes and related school-level indicators, these same constructs emerged as significant predictors of variation in student achievement. In the retention analyses reported here, they appear as important predictors of teacher mobility, intentions to remain in schools, school turnover rates, and ratings of schools as good places to work and learn. Taken together, these findings suggest that the constructs are not merely measures of instructional practice; they appear to function as indicators of organizational capacity that connect teacher and student outcomes simultaneously. For school and district leaders, this convergence makes

them particularly important areas for monitoring and improvement; they represent conditions associated with both workforce stability and student success.

We analyzed their explanatory power for three outcome variables:

- Recommend this school as a good place to work.
- Plan to stay in current teaching role in same school.
- Plan to remain a teacher but choose to leave the current school and district.

The C*apacity to Support Academic Success (Academic Capacity)* and *Capacity to Support Wellbeing (Wellbeing Capacity)* MAIHDA variables represent related but distinct dimensions of the schools. Academic Capacity reflects the extent to which schools possess instructional infrastructure, shared pedagogical practices, and organizational conditions that can support student academic outcomes and teachers' educational work. Wellbeing Capacity captures schools' ability to support both student and staff wellbeing, important given the central role that the related TLCC constructs have for teacher retention and satisfaction with the school.

Although some institutional characteristics and resources contribute to both domains, these capacities operate through partially distinct mechanisms. Accordingly, the TLCC construct "Instructional Practice: Shared Responsibility for Learning" was treated as foundational to Academic Capacity, while Wellbeing Capacity emphasized support for diversity, caseload structure (district level), and contextual stressors. This distinction allows the two MAIHDA variables to be modeled simultaneously, providing complementary rather than redundant information about how school environments shape outcomes. Our construction of these MAIHDA variables reflects an intersectional institutional logic in which distinct configurations of school characteristics generate different forms of capacity, even when some underlying resources are related to both.

Recommending the school as a good place to work.

Most educators report that they would recommend their school as a good place to work. However, some schools consistently receive stronger endorsements than others, even when overall satisfaction is high. These differences are not random. They reflect the ways in which multiple features of the school organization -- instructional coherence, staffing structure, and the ability to manage student needs-- work together. Schools with strong academic infrastructure tend to receive more uniformly positive staff ratings, while schools facing greater organizational strain have wider variation in staff ratings.

The level of between-school variation captured by MAIHDA corresponds to differences that staff would experience and articulate in everyday judgments about their workplace. At baseline, schools typically differed from one another by roughly 0.35–0.40 points on a four-point agreement scale for how strongly staff would recommend them as places to work. This is *not* subtle on a 1–4 scale. Because the outcome represents aggregated staff perceptions, differences of several tenths of a scale point reflect meaningful institutional contrasts in day-to-day working conditions rather than minor opinion shifts.

Academic Capacity was strongly related to whether educators viewed their school as a good place to work. Schools with stronger instructional supports, more experienced staffs, fewer instructional disruptions, and conditions that support effective teaching were more likely to receive positive

recommendations from educators. Importantly, these factors appeared to operate together rather than independently. In other words, schools were viewed more positively when multiple elements of academic capacity were aligned and working in concert.

Wellbeing Capacity also mattered, but its influence appeared to be more dependent on the specific context of a school. Schools with similar levels of wellbeing capacity did not always receive identical ratings from educators. This suggests that factors such as support for diverse student needs, access to counseling and wellbeing resources, and the overall level of organizational strain may interact differently across schools.

For leaders, the practical message is that improving working conditions is not simply a matter of strengthening a single program or resource. The most positive staff perceptions occurred in schools where multiple supports were present simultaneously and reinforced one another. Table 21 presents the variables that contributed most strongly to these two broader forms of school capacity.

Table 20 presents the component variables comprising the MAIHDA intersectional variables in order of the magnitude of predictive power for the outcome variable: "I would recommend this school as a good place to work."

Table 21

Order of Explanatory Power, Variables Comprising MAIHDA Intersectional Variables: Good Place to Work

Outcome variable: **"I would recommend this school as a good place to work."**
Variables comprising MAIHDA "Capacity to Support Wellbeing"
1. *Schoolwide aggregate score* for TLCC Construct Instructional Practice: Shared Responsibility for Learning 2. *Schoolwide aggregate score* for TLCC Construct Instructional Practice: Meeting Diverse Student Needs 3. Average rating for Teacher Quality Standard 2: Teachers establish a safe, inclusive and respectful learning environment for a diverse population of students 4. *Inverse relationship*: Ratio of students to counselor (district metric)
Variables comprising MAIHDA "Capacity to Support Academic Success"
1. *Schoolwide aggregate score* for TLCC Construct Instructional Practice: Supportive Conditions 2. Average rating for Teacher Quality Standard 3: Teachers plan and deliver effective instruction and create an environment that facilitates learning for their students 3. Mean experience of responding teachers (in the school) 4. Proportional disruptions per classroom 5. Pupil / teacher ratio

Tables 22 and 23 present the parameter estimates of the MAIHDA multilevel and traditional single-axis regression models for rating of the school as "a good place to work" with MAIHDA variables Academic Capacity and Wellbeing Capacity, respectively. The Variance Partition Coefficient (VPC) at the bottom of these tables indicates how much of the variation in outcomes is attributable to differences between the MAIHDA strata, i.e., the intersectional combinations of the variables making up the MAIHDA variable. For

example, in **Table 22**, approximately 20% of the variation in ratings of the school as a good place to work occurred between intersectional strata for Academic Support Capacity, compared with 5% accounted for by the traditional regression model 1B. A higher VPC indicates that the intersectional classification captures meaningful differences among schools.

Table 22

Parameter Estimates for Linear Models of Outcome Variable Rating of School as Good Place to Work, Academic Support Capacity

	Academic Capacity Model 1A		**Academic Capacity Model 1B**	
	Estimate	[95% CI]	Estimate	[95% CI]
Fixed Effects: Regression Coefficients				
Intercept	3.25***	[3.19, 3.32]	0.05	[-0.09, 0.19]
Quality Std 1, pedagogical content knowledge			-0.01	[-0.03, 0.01]
Quality Std 3, effective instruction / learning environment			0.05*	[0.01, 0.08]
Mean experience teachers responding on TLCC			0.02***	[0.01, 0.02]
Instructional Practice, Supportive Conditions Scale Score			0.91***	[0.88, 0.93]
Pupil / Teacher ratio			0.01***	[0.01, 0.02]
Proportion of disruptions / classroom estimate			-0.02**	[-0.03, 0.00]
Random Effects: Variances				
Individual level, σ^2	0.58		0.41	
Stratum level, τ_{oo}	0.15		0.02	
Summary Statistics				
Variance Partition Coefficient (VPC)	20%		5%	
Proportional Change in Variance (PCV)			87%	
Observations	16,464		15,494	

Notes: VPC was calculated as $\tau_{oo} / (\tau_{oo} + \sigma^2)$. PCV was calculated as $(\tau_{oo,baseline} - \tau_{oo,adjusted}) / \tau_{oo,baseline}$.

PCV of 87% highlighted for convenience of example, see paragraph just above

** p<0.05 ** p<0.01 *** p<0.001*

The Proportional Change in Variance (PCV) quantifies the percentage reduction in between-stratum variance relative to the baseline (null) MAIHDA model after accounting for explanatory variables. For example, in **Table 22**, the PCV of 87% (yellow highlight above for convenience) indicates that the

covariates included in the traditional model explain most of the variance observed between intersectional strata. Consequently, only 13% of the original between-stratum variance remains unexplained after adjustment. Given the baseline VPC of 20%, this suggests that approximately 3% of the total outcome variance (20% × 13% = 2.6%) represents residual intersectional effects not accounted for by the included covariates. Together, the VPC and PCV provide complementary information: the VPC indicates the overall importance of intersectional strata in explaining outcome variation, while the PCV indicates how much of that between-stratum variation is explained by the measured characteristics included in the model.

Table 23

Parameter Estimates for Linear Models of Outcome Variable Rating of School as Good Place to Work, Wellbeing Support Capacity

	Wellbeing Capacity Model 1A		**Wellbeing Capacity Model 1B**	
	Estimate	[95% CI]	Estimate	[95% CI]
Fixed Effects: Regression Coefficients				
Intercept	3.26***	[3.18, 3.35]	0.22	[-0.23, 0.68]
Quality Std 2, learning environment, diverse population of students			0.12***	[0.05, 0.19]
Instructional Practice, Meeting Diverse Student Needs Scale Score			0.27***	[0.25, 0.30]
Student / Counselor ratio			-0.11*	[-0.19, -0.02]
Student / Social worker ratio			0.06	[-0.05, 0.17]
Student / Psychologist ratio			-0.04	[-0.03, 0.06]
Instructional Practice, Shared Responsibility for Learning			0.62***	[0.59, 0.64]
Random Effects: Variances				
Individual level, σ^2	0.56		0.45	
Stratum level, τ_{oo}	0.18		0.07	
Summary Statistics				
Variance Partition Coefficient (VP	24%		7%	
Proportional Change in Variance (PCV)			61%	
Observations	16,464		14,878	

Notes: VPC was calculated as $\tau_{oo} / (\tau_{oo} + \sigma^2)$. PCV was calculated as $(\tau_{oo,baseline} – \tau_{oo,adjusted}) / \tau_{oo,baseline}$.

** $p<0.05$ ** $p<0.01$ *** $p<0.001$*

Deciding to stay in the school or the district

In addition to analyzing the organizational-level factors relating to whether teachers assessed their school as being a good place to work, we analyzed those factors related to what teachers said they intended to do in the school year following TLCC administration. **We compared teachers that said they plan to stay in their school in their teaching role with teachers that said they intend to keep teaching but plan to leave the district** (and therefore their school). By adding these responses about intent to the ratings of how positive the school is as a place to work, we gained additional insights into what predicts—and drives—teacher retention and types of mobility.

Predictors of Teacher Retention

To better understand the conditions associated with teacher retention, we estimated separate logistic regression models for first-year teachers and teachers with two or more years of experience. The dependent variable was whether a teacher planned to remain in the same school or leave the school. Logistic regression is particularly appropriate for this analysis because the outcome is binary: teachers either planned to stay or intended to leave. Unlike linear regression, logistic regression directly models the likelihood of a retention outcome and produces results that can be interpreted as **odds ratios**. The ten TLCC constructs were entered simultaneously into each model. Consequently, the results should be interpreted as the **unique contribution** of each construct *after accounting for overlap* with the other school climate and working-condition measures. In practical terms, the model identifies which aspects of teachers' experiences provide information about retention above and beyond what is already explained by the other constructs.

Tables 24 and **25** present results of logistic regressions of teachers' intents to 1) continue teaching in their school and 2) leave the school and district to teach elsewhere, respectively. As with our presentation of items contributions to their constructs, above with

Understanding Odds Ratios

An odds ratio of 1.00 indicates no relationship with retention. Values greater than 1.00 indicate higher odds of remaining in the school, while values less than 1.00 indicate lower odds of remaining. The farther the value is from 1.00, the stronger the relationship with retention. Odds ratios (OR) can be interpreted as multipliers of retention likelihood:

- OR = 1.00 → no association with retention
- OR = 1.20 → approximately 20% higher odds of staying
- OR = 1.50 → approximately 50% higher odds of staying
- OR = 2.00 → approximately twice the odds of staying
- OR = 0.80 → approximately 20% lower odds of staying
- OR = 0.50 → approximately half the odds of staying

For example, an odds ratio of 3.74 for Support for Own Wellbeing among first-year teachers indicates that teachers reporting more positive perceptions of wellbeing support were substantially more likely to remain in their schools than teachers reporting less positive support. In contrast, an odds ratio of 0.76 indicates lower odds of remaining.

A final caution is important. Odds ratios reflect statistical associations rather than causal effects. In addition, because the ten TLCC constructs are related to one another, some constructs may appear weaker, or occasionally negative, after the overlap among constructs has been accounted for. Therefore, the results should be interpreted as indicators of priority conditions associated with retention rather than as isolated causal drivers.

Tables X through X, we present these splitting the group of first-year teachers and teachers with 2+ years of experience, as we believe the insights from comparing the two groups can be valuable.

First-Year Teacher Retention

Table 23 shows the odds table for first-year teachers. The model reveals a highly concentrated retention profile. Two constructs stand out clearly above all others. Support for Own Wellbeing (OR = 3.74) emerged as the strongest predictor of retention, followed by Instructional Practices: Supportive Conditions (OR = 2.18). Both constructs demonstrated very strong positive relationships with remaining in the school. Student Supports is also moderately positive (OR = 1.32) in importance for first-year teachers planning to stay in their current school.

Table 24

TLCC Constructs Associated with Teacher Staying in Current School, first year teachers

Construct	Odds Ratio	95% CI	Retention Effect
Support for Own Wellbeing	**3.74**	2.54–5.49	**Very Strong Positive**
Instructional Practices: Supportive Conditions	**2.18**	1.38–3.44	**Very Strong Positive**
Student Supports	**1.32**	0.88–1.99	**Moderate Positive (Uncertain)**
Student Behavior	1.15	0.80–1.65	Small Positive (Uncertain)
Staff Leadership	1.12	0.76–1.66	Small Positive (Uncertain)
Staff Evaluation	1.01	0.76–1.35	Negligible
Time	1.01	0.75–1.37	Negligible
Professional Climate	1.01	0.64–1.61	Negligible
Instructional Practices: Diverse Student Needs	0.87	0.58–1.30	Small Negative (Uncertain)
Instructional Practices: Shared Responsibility	0.63	0.36–1.08	Strong Negative (Uncertain)

This pattern suggests that novice teachers are particularly sensitive to the immediate supports surrounding their daily work. The strongest retention-related conditions are not accountability structures, evaluation systems, or organizational routines. Rather, they are conditions that help new teachers cope, succeed instructionally, and maintain their personal wellbeing while navigating the challenges of the first year.

Most other constructs demonstrated only small or uncertain relationships with retention. Staff Leadership, Student Behavior, Professional Climate, Time, and Staff Evaluation all showed odds ratios close to 1.00. These findings suggest that, for first-year teachers, many features of the school environment may matter less than whether they feel supported personally and instructional conditions help them succeed with students.

The overall pattern aligns closely with the earlier findings showing that first-year teachers are more likely to begin their careers in schools with higher turnover, less experienced faculties, and fewer contextual advantages. Taken together, the findings suggest that retaining novice teachers may depend heavily on

reducing the immediate pressures associated with entering the profession and ensuring that adequate supports are available during their transition into teaching.

Retention Among Teachers With Two or More Years of Experience

Table 25 shows the odds table for teachers with two or more years of experience. Support for Own Wellbeing remained the strongest predictor of retention (OR = 3.16), indicating that wellbeing is important regardless of career stage. However, unlike the first-year model, retention among experienced teachers was associated with a broader array of organizational conditions.

Professional Climate (OR = 1.30), Staff Leadership (OR = 1.21), Instructional Practices for Diverse Student Needs (OR = 1.21), and Student Behavior (OR = 1.19), all demonstrated positive relationships with retention where an odds ratio of 1.20 represents about 20% higher odds of staying . Collectively, these findings suggest that once teachers move beyond the induction stage, decisions about staying are influenced less by immediate survival supports and more by the overall quality of the professional environment.

Table 25

TLCC Constructs Associated with Teacher Staying in Current School, Teachers with 2+ Years

Construct	Odds Ratio	95% CI	Retention Effect
Support for Own Wellbeing	**3.16**	2.90–3.44	**Very Strong Positive**
Professional Climate	**1.30**	1.17–1.45	**Moderate Positive**
Staff Leadership	**1.21**	1.11–1.32	**Small–Moderate Positive**
Instructional Practices: Diverse Student Needs	**1.21**	1.11–1.33	**Small–Moderate Positive**
Student Behavior	1.19	1.10–1.29	Small–Moderate Positive
Time	1.14	1.06–1.21	Small Positive
Instructional Practices: Supportive Conditions	1.10	0.99–1.22	Small Positive
Staff Evaluation	1.09	1.02–1.15	Small Positive
Instructional Practices: Shared Responsibility	0.83	0.74–0.93	Small Negative
Student Supports	0.76	0.69–0.83	Moderate Negative

For experienced teachers, retention appears connected to questions such as:

- Is leadership effective?
- Is the professional culture healthy?
- Is enough instructional time available?
- Are student behavior support systems workable?
- Do teachers feel capable of meeting diverse student needs?

These findings suggest that experienced teachers evaluate schools more holistically when making decisions about whether to remain.

Comparing First-Year and Experienced Teachers

The most striking finding is the extent to which retention drivers differ across career stages. Although Support for Own Wellbeing was the strongest predictor in both groups, most other constructs demonstrated different levels of importance depending on experience level. **Table 26** presents the comparison of the two groups, by the 10 TLCC constructs.

Table 26

Interpreting Differences, Similarities of Construct Influences by Two Experience Levels

Construct	Interpretation
Support for Own Wellbeing	Very important for both groups
Instructional Practices: Supportive Conditions	Much more important for 1st years
Student Supports	Opposite pattern across groups
Student Behavior	Slightly more important for experienced teachers
Staff Leadership	Slightly more important for experienced teachers
Staff Evaluation	Slightly more important for experienced teachers
Time	Slightly more important for experienced teachers
Professional Climate	More important for experienced teachers
Instructional Practices: Diverse Student Needs	Opposite pattern across groups
Instructional Practices: Shared Responsibility	More important for 1st year teachers

For first-year teachers, Instructional Practices: Supportive Conditions was nearly as influential as Support for Own Wellbeing and substantially stronger than for experienced teachers. This suggests that novice teachers may make stay-or-leave decisions heavily based on whether the school provides the instructional supports needed to be successful in the classroom.

By contrast, experienced teachers showed stronger relationships with Professional Climate, Staff Leadership, and Diverse Student Needs. These findings suggest that retention decisions among experienced teachers may depend more on the overall functioning of the organization and the quality of ongoing professional work.

Several constructs displayed opposite patterns across groups, particularly Student Supports and Diverse Student Needs. Because these constructs are strongly related to other school climate measures, and because similar constructs demonstrated positive relationships in bivariate analyses, these results should be interpreted cautiously as estimates of unique contribution rather than evidence that these conditions themselves discourage retention.

Implications for School and District Leaders

Three practical conclusions emerge from the findings.

Priority 1: Support for their Wellbeing Matters for Everyone

Support for Own Wellbeing was the strongest predictor of retention for both first-year teachers (OR = 3.74) and teachers with two or more years of experience (OR = 3.16). No other construct approached its

level of association with staying. The implication is straightforward: efforts to improve teacher wellbeing are likely to support retention across the entire workforce.

Priority 2: Novice Teachers Need Strong Induction Conditions

The unusually large effect for Instructional Practices: Supportive Conditions among first-year teachers suggests that retention efforts for novice teachers should focus on instructional support, mentoring, coaching, and practical assistance with classroom implementation. New teachers appear especially likely to remain when schools make success in the classroom more achievable.

Priority 3: Experienced Teachers Stay for Organizational Reasons

For teachers beyond the first year, retention is associated with professional climate, leadership, and instructional capacity. This suggests that retaining experienced teachers may require broader organizational improvement efforts rather than narrowly targeted induction supports.

Overall Conclusion

These results suggest that teacher retention is not driven by a single factor or a single strategy. Instead, different groups of teachers appear responsive to different aspects of the school environment. First-year teachers are most strongly influenced by support for their wellbeing and instructional supports that help them navigate into the profession, whereas more experienced teachers appear more influenced by the broader professional and organizational conditions of the school. For leaders seeking to improve retention, the findings point toward differentiated retention strategies that address the distinct needs of novice and experienced teachers rather than assuming a one-size-fits-all approach.

MAIHDA Analysis: School Capacity Factors

As with the "good place to work" and "good place to learn" variables above, we analyzed potential intersectionality of school characteristics using our two MAIHDA variables – Academic Capacity and Wellbeing Capacity. **Table 27** presents the component variables comprising the MAIHDA intersectional variables in order of the magnitude of predictive power for the outcome variable of planning to stay teaching in the current school, compared with planning to leave the school and district but remain in teaching. Note that while the two outcomes "stay in school" and "leave the school/district" share component variables, "leave the school/district" adds two variables: mean experience in the school and average rating for Teacher Quality Standard 3. Considering our other analysis findings reported in this paper, we interpret this as at least partly reflecting experienced teachers' ability to move and their heightened interest in the school's capacity to create environments that facilitate student learning.

Table 27

Order of Explanatory Power, Variables Comprising MAIHDA Intersectional Variables: Stay or Leave

Outcome variable: **Planning to continue teaching in current school.**
Variables comprising MAIHDA "Capacity to Support Wellbeing"
1. TLCC Instructional Practice: Shared Responsibility for Learning 2. Teacher Quality Standard 2: Teachers establish a safe, inclusive and respectful learning environment for a diverse population of students. 3. TLCC Instructional Practice: Meeting Diverse Student Needs
Variables comprising MAIHDA "Capacity to Support Academic Success"
1. TLCC Instructional Practice: Supportive Conditions 2. Pupil / teacher ratio
Outcome variable: **Planning to continue teaching but leave current school and district.**
Variables comprising MAIHDA "Capacity to Support Wellbeing"
1. TLCC Instructional Practice: Shared Responsibility for Learning 2. TLCC Instructional Practice: Meeting Diverse Student Needs 3. Teacher Quality Standard 2: Teachers establish a safe, inclusive and respectful learning environment for a diverse population of students.
Variables comprising MAIHDA "Capacity to Support Academic Success"
1. Pupil / teacher ratio 2. Mean estimated experience, teacher respondents 3. Teacher Quality Standard 3: Teachers plan and deliver effective instruction and create an environment that facilitates learning for their students. 4. TLCC Instructional Practice: Supportive Conditions

Whether teachers stay in their current role or leave for another school, the same underlying school conditions matter most. Teachers' **decisions are different**, but the **school conditions behind those decisions are the same**. Leaving or staying are not different problems—they are different responses to the same school capacity conditions. The same kinds of schools, those with weaker basic supports and professional conditions, tend to lose teachers from within the school (role turnover), lose teachers to other schools or districts (mobility), or experience both at the same time.

Taken together, findings across the three indicators—rating of school, intent to stay, and intent to teach elsewhere—demonstrate that teacher retention is not a simplistic phenomenon, but a set of distinct institutional processes shaped by different intersectional configurations of school-context capacity. Evaluations of schools as good places to work are most strongly patterned by configurations that combine instructional coherence with organizational strain and support of diversity, reflecting staff members' holistic experience of their workplace. Persistence-in-role within the same school is associated primarily with baseline structural stability, suggesting that remaining in a position reflects institutional

sufficiency rather than heightened capacity or feelings about the school. In contrast, leaving a school or district while remaining in teaching is most closely linked to configurations of professional support and wellbeing infrastructure, consistent with interpretations of mobility as a response to institutional misalignment rather than withdrawal from the profession. Teachers' decisions to stay or move are shaped less by personal preference and more by how well schools are structured to support everyday professional work.

Although staying in the same role and leaving a school while remaining in teaching represent different decisions, both outcomes were shaped by the same intersectional configurations of institutional capacity. This pattern suggests that these behaviors reflect different responses to shared structural conditions rather than distinct organizational differences. Where baseline wellbeing infrastructure and professional support are sufficient, teachers are more likely to remain in their roles. Where these conditions are weaker, teachers may respond by relocating rather than exiting the profession altogether. Importantly, the presence of the same MAIHDA capacities across both outcomes indicates that **retention and mobility are not opposite processes, but related pathways through which teachers navigate institutional fit**. From this perspective, mobility should be interpreted as a signal of organizational mismatch rather than disengagement from teaching. Whether teachers stay or move depends less on their commitment to teaching and more on how well their school's institutional capacity supports them both professionally and personally.

Our analysis of **Wellbeing Capacity** suggests that teachers are much more likely to stay at the school when basic supports for the job is in place: enough staffing, access to student supports, and a sense that daily challenges are manageable. When those basics are missing, teachers don't usually leave teaching altogether. Instead, they start looking for schools where those supports exist. Our analysis of **Academic Capacity** suggests that teachers are more likely to remain in their role when they feel supported in doing their instructional work and believe they can succeed professionally without burning out. When instructional support or working conditions don't match teachers' skills, those teachers, especially experienced ones, are more likely to move to a different school where they believe they can do their job better.

With strong capacity to support wellbeing, staying is the default. Lower Wellbeing Capacity requires extra personal tolerance for stressful challenges. For Academic Capacity, staying is mainly about professional sustainability. Strong teachers are not the least loyal, but most able to be mobile when school conditions don't support their work.

Summary & Conclusions

This report summarized our analysis of the relationships among TLCC conditions, teacher retention-related outcomes and drivers, and school contextual factors. Across multiple analytic approaches, a remarkably consistent pattern emerged: teacher retention is closely connected to the organizational conditions under which teachers work and the extent to which schools possess the capacity to support both educator wellbeing and instructional success.

While some findings may appear consistent with long-standing assumptions that working conditions influence retention, this study contributed substantially beyond confirming those assumptions. First, we identified the specific teaching and learning conditions (TLCC constructs) most consistently associated with retention-related outcomes and differentiated their relative importance. Second, we demonstrated that these relationships differ meaningfully across teacher career stages, particularly between first-year and more experienced teachers. Third, we demonstrated that retention, mobility, teacher perceptions of schools, and broader school outcomes are influenced by many of the same organizational conditions. Finally, through MAIHDA, we demonstrated that these conditions function as interconnected systems that combine into broader forms of institutional capacity rather than operating as independent organizational levers.

Finding 1: "Good Place to Work" Functions as a Powerful Retention Indicator

Among the retention-related outcomes we examined, teachers' ratings of their school as a good place to work emerged as one of the most informative indicators of workforce stability. This measure was strongly associated with teachers' intentions to remain in their school and captured much of the explanatory value shared across the TLCC general reflection items.

The value of this finding extends beyond the observation that teachers prefer positive workplaces. Among the many TLCC measures available to school leaders, the "good place to work" item emerged as a practical *signal* indicator that captured a large proportion of the information contained in other retention-related measures. As a result, this single item may provide leaders with an accessible entry point for identifying potential retention challenges, monitoring organizational health, and prioritizing deeper examination of underlying working conditions. Rather than serving merely as a general satisfaction measure, it appears to function as a meaningful proxy for broader organizational capacity related to teacher retention.

Finding 2: Wellbeing, Professional Climate, Student Behavior (supports) and Staff Leadership Consistently Matter

Across correlations, regression analyses, retention models, subgroup analyses, and contextual analyses, three teaching and learning conditions repeatedly emerged as highly influential: **Support for Own Wellbeing**, **Professional Climate**, **Student Behavior** (supports) and **Staff Leadership**. **Instructional Practices: Supportive Conditions** also appeared consistently among important contributors, especially for novice teachers. While no single construct explains retention by itself, these conditions collectively represent the strongest and most consistent contributors across outcome measures.

Finding 3: Teacher Experience Level Matters

Although many conditions were important for all teachers, first-year teachers and teachers with as little as two years of experience demonstrated different retention profiles. First-year teachers appeared especially responsive to well-being support and instructional conditions that help them succeed in the classroom. Experienced teachers remained highly influenced by wellbeing but also appeared sensitive to broader organizational conditions such as professional climate, leadership, and the overall functioning of the school. These findings suggest that retention efforts should be differentiated rather than built around a single strategy for all educators.

Finding 4: Retention and Mobility Reflect Organizational Capacity

Teachers who stayed and teachers who planned to move elsewhere were influenced by many of the same school conditions. This suggests that retention and mobility should not be viewed as entirely separate phenomena. In many cases, mobility may represent teachers seeking organizational contexts that better support their work rather than a loss of commitment to teaching itself. The findings therefore point toward institutional capacity and workplace conditions as important drivers of movement within the educator labor market.

Finding 5: School Conditions Operate as Systems

The analyses repeatedly demonstrated that TLCC constructs are interconnected. Leadership, climate, instructional practices, student supports, behavior systems, and wellbeing supports rarely operate independently. Rather than functioning as isolated levers, these conditions combine to create broader organizational environments that shape teachers' experiences. The MAIHDA analyses reinforced this interpretation by identifying two overarching institutional capacities that repeatedly explained variation in retention-related outcomes:

- **Capacity to Support Wellbeing**
- **Capacity to Support Academic Success**

Importantly, these capacities were not identified solely from teacher perceptions. Their development drew on combinations of TLCC constructs, student wellbeing indicators, behavioral outcomes, staffing patterns, contextual characteristics, and other organizational measures. This suggests that the identified capacities represent broader features of how schools' function rather than simply how individual teachers feel about their workplaces. The resulting framework provides leaders with a more integrated way to understand and improve school performance across multiple outcomes simultaneously.

Implications for School, District, and Policy Leaders

These findings suggest that retention is less about motivating teachers to work harder and more about creating conditions that make the work sustainable. Teachers stay when they experience organizational environments that support their wellbeing, allow them to be successful with students, and provide stable and healthy professional cultures.

For school leaders, efforts to improve teacher retention should focus on strengthening several key workplace conditions, including: supports for teacher wellbeing, professional climate, student behavior systems, staff leadership and supportive conditions for instruction. For district leaders, patterns of

turnover may signal uneven capacity across schools rather than broad dissatisfaction with the district. For policymakers, the findings suggest that educator shortages are not solely a supply problem but also a conditions and distribution problem. Investments that strengthen baseline school capacity may improve retention while reducing costly staff churn and workforce instability.

Ultimately, the evidence suggests that retention should be understood as an organizational outcome. Schools do not retain teachers through isolated programs or incentives alone. They retain teachers by building the institutional capacity necessary for educators to thrive professionally, succeed instructionally, and sustain their work overtime.

Perhaps the most important conclusion emerging from this work is that teacher retention should not be viewed as a stand-alone workforce problem. Across analyses, the same conditions associated with teacher retention were also related to educator perceptions of schools, student wellbeing and behavioral supports, and, in other analyses using these same data sources, student academic outcomes. This suggests that efforts to improve retention are not separate from efforts to improve teaching, learning, and school culture. Rather than pursuing isolated retention initiatives, leaders may benefit from strengthening the broader organizational capacities that support both educators and students. In this sense, retention may function less as an endpoint and more as an indicator of the overall health and effectiveness of the school as an organization.

Appendix A: MAIHDA School Context, Community Variables

Support for Student Wellbeing

Factor	Measure	Access
Student access to school counselors	Number of students per counselor in district	https://ed.cde.state.co.us/cdereval/staffstatistics Staff to Pupil Ratio (click on)
Student access to social workers	Number of students per social worker in district	https://ed.cde.state.co.us/cdereval/staffstatistics Staff to Pupil Ratio (click on)
Student access to school psychologists	Number of students per school psychologist in district	https://ed.cde.state.co.us/cdereval/staffstatistics Staff to Pupil Ratio (click on)
Teacher Effectiveness Ratings for TQS 2: Establishing a safe, inclusive and respectful learning environment for a diverse population of students.	Percent of teachers within the school rated Proficient, Accomplished, or Exemplary for TQS 2	https://ed.cde.state.co.us/educatortalent/researchandimpact/educator-effectiveness-metrics "Quality Standards" Dashboard Select: Academic Year, Quality Standard 2, District, School Add: Proficient, Accomplished, and Exemplary (percentages)

Academic Support Capacity

Factor	Measure	Access
Schoolwide Teacher Experience Estimate	Years of experience in school & career, calculated average across TLCC respondents	May not be available or reliable unless school reaches 80% or greater on response rates. May be estimated by the school based on HR records.
Student-to-teacher ratio	Pupil/ Teacher ratio	https://ed.cde.state.co.us/cdereval/staffstatistics Staff to Pupil Ratio (click on) Teacher by School tab (in excel worksheet)
Schoolwide teacher evaluation ratings for TQS 1: Content knowledge and pedagogical expertise	Percent of teachers within the school rated Proficient, Accomplished, or Exemplary for TQS1.	https://ed.cde.state.co.us/educatortalent/researchandimpact/educator-effectiveness-metrics "Quality Standards" dashboard

Factor	Measure	Access
		Select: Academic Year, Quality Standard 1, District, School Add: Proficient, Accomplished, and Exemplary (percentages)
Schoolwide teacher evaluation ratings for TQS 3: Instructional practice grounded in student development, informed by assessment, and designed to foster critical thinking, collaboration, and communication	Percent of teachers within the school rated Proficient, Accomplished, or Exemplary for TQS 3.	https://ed.cde.state.co.us/educatortalent/researchandimpact/educator-effectiveness-metrics "Quality Standards" dashboard Select: Academic Year, Quality Standard 3, District, School Add: Proficient, Accomplished, and Exemplary (percentages)
Frequency of student behavior disruptions	Average number behavior incidents (reported to the state) / number of classrooms.	Schools provide this data to the district and the state, but it is not currently available publicly. For a list of the types of behavior incidents reported to the state: https://ed.cde.state.co.us/cdereval/disciplinestatistics

Community Context

Factor	Measure	Access
School neighborhood socioeconomic status	Income-to-poverty ratio (IPR), percentage of family income that is above or below the federal poverty threshold.	https://data.census.gov/table?q=C17002 Filliter by state, county, and the next layer down that captures the school neighborhood (e.g., county subdivision or census track(s))
The percentage of homes in the county where English is not the primary language	U.S. Census data, counties in Colorado. File set S1602, Limited English Speaking Households.	https://data.census.gov/table?q=C17002 Filter by state, county, and the next layer down that captures the school neighborhood (e.g., county subdivision or census track(s)). "Topics" = Populations and People -> Language Spoken at Home

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