Kent ISD

MI Student Voice Educator Survey – Examining the Relationship Between School Culture and Climate and Job Satisfaction

Basis Policy Research December 2024

This research brief uses data from the spring 2024 pilot administration of the MI Student Voice Educator Perception Survey to examine the relationship between school culture and climate and job satisfaction.

Key findings include:

- Teachers with extensive professional experience have a higher likelihood of reporting more satisfaction working in their current school.
- Black and Hispanic teachers have a significantly higher likelihood of reporting a more positive school culture and climate.
- Teachers who report more effective school leadership have a four times higher likelihood of reporting more workplace satisfaction.

Recommendations include:

- Support district and school initiatives to better understand teacher satisfaction.
- Prioritize school leader professional learning on school culture and climate.
- Prepare resources on teacher-centered school culture and climate initiatives.
- Revise the educator survey to include additional constructs related to school culture and climate.

Introduction

School culture and climate are crucial in shaping teacher job satisfaction (Kraft & Papay, 2014). A positive school culture and climate —characterized by supportive leadership, collaborative relationships among staff, professional learning opportunities, and a focus on student achievement—fosters a sense of belonging and purpose among teachers, thereby enhancing their professional satisfaction (Skaalvik & Skaalvik, 2017; Wang & Degol, 2016). This satisfaction is closely linked to retention, as high levels of job satisfaction strongly predict teachers' intention to remain in their positions (Ingersoll, 2001). Conversely, dissatisfaction due to inadequate resources, lack of administrative support, or poor working conditions can lead to increased turnover, disrupting student learning and incurring significant costs for schools (Ingersoll & Smith, 2003). Therefore, exploring how school culture and climate influences teachers' satisfaction is essential for fostering a stable and effective teaching workforce and ensuring a positive educational environment.

This research brief uses educator survey data to explore the extent to which Michigan teachers report feeling satisfied working in their current school and examines how the school culture and climate influence teachers' sense of satisfaction. We find that reporting a more positive school culture and climate significantly increases the likelihood that teachers report more satisfaction working in their current school. Furthermore, teachers who report more effective school leadership have a four times higher likelihood of reporting more workplace satisfaction, making effective leadership the strongest predictor of satisfaction among factors contributing to a more positive school culture and climate. Finally, results indicate that districts and schools should support initiatives to further understand teacher satisfaction, prioritize school leader professional learning focused on school culture and climate, and prepare resources on teacher-centered school culture and climate initiatives. We discuss these findings and recommendations in greater detail below.

Research Questions

This research brief examines the following research questions:

- How do teachers' perceptions of satisfaction vary by gender identity, race/ethnicity, or professional experience?

- To what extent does school culture and climate influence teachers' sense of satisfaction?

Methods

Sample. This research brief uses data from the spring 2024 administration of the MI Student Voice Educator Perception Survey. Educators from 48 districts in Michigan participated in the survey. At the conclusion of the survey window, 2,838 educators completed the survey. We restricted the sample to 1,891 respondents (67% of responses) who (a) selected "teacher" as their primary role, (b) completed all survey questions, and (c) had demographic data available. Teachers included in the analytic sample work in 47 districts across Michigan. Appendix A describes the sample, including response rates by participating districts.

Measures. This research brief uses concepts or constructs (henceforth titled "factors") derived from the MI Student Voice Educator Perception Survey validation report. In this report, we applied an exploratory factor analysis (EFA) to examine patterns in survey responses. This statistical technique explores relationships between survey items and groups items with common themes into underlying factors. Factors derived from an EFA include multiple questions that "hang together" because of similar patterns of responses. For example, school support is a factor you cannot measure directly. However, you can measure whether teachers report (a) professional learning opportunities are tailored to instructional needs, (b) school leaders provide feedback on instruction, and (c) school leaders are effective in handling student discipline concerns. The six factors derived from the validation report and used in this research brief include:

- **School Leadership:** Survey items associated with this factor include teachers' perceptions of leaders' support when facing challenges at work, leaders' influence on the quality of their work, how respectful leaders are towards teachers, and whether leaders' actions demonstrate they have the best interest of the school (See Appendix B, Table B1).

- **Job Satisfaction:** Items related to this factor inquire about teachers' enthusiasm for being at school, the likelihood teachers will return the following school year, the likelihood teachers would recommend this school to other parents/guardians, and whether teachers feel connected to students (See Appendix B, Table B1).

- **School Inclusivity:** Survey items associated with this factor include the extent teachers believe the school is a welcoming environment for students, provides opportunities for all students to try and do their best, provides enough resources for students, and prepares students to be open and respectful of diverse perspectives (See Appendix B, Table B1).

- **Collegial Relationships:** Items related to this factor include the extent teachers get along with other staff members at school, whether adults respect divergent points of view, how respectful colleagues are towards each other, and whether adults feel connected to each other (See Appendix B, Table B1).

- **Instructional Resources:** The three items related to this factor inquire about whether teachers have high-quality instructional resources to support student learning, have enough instructional

resources to positively affect student performance, and how well current instructional resources support students' achievement (See Appendix B, Table B1).

- **Parent/Guardian Support:** Items related to this factor inquire about how respectful parents and students are towards staff and whether parents are supportive of their children's learning (See Appendix B, Table B1).

Additionally, we constructed a measure of **school culture and climate** (alpha = 0.96). This measure includes survey items related to leadership effectiveness, school inclusivity, collegial relationships, instructional resources, and parent/guardian support. We believe items associated with these factors can serve as a proxy measure for school culture and climate because they align with dimensions identified in prior literature (Day & Leithwood, 2007; Forlin, 2010; Goddard et al., 2000; Darling-Hammond, 2000; Sanders & Lewis, 2005). However, we recognize a more complete measure of school culture and climate would include items associated with teacher autonomy (Buchanan, 2012), student engagement (Fredricks et al., 2004), professional learning opportunities (Guskey, 2002), and school safety (Bowers, 2001), amongst others. We will reconstruct this measure if additional items aligned to prior literature are included in future iterations of the MI Student Voice Educator Perception Survey.

Analytic Strategy. Below we describe the analytic strategy used to answer the research questions included in this brief.

RQ 1 | How do teachers' perceptions of satisfaction vary by gender identity, race/ethnicity, or professional experience?

We employed a two-step approach to answer this research question. First, we constructed a measure of satisfaction using Item Response Theory (IRT), which estimates teachers' positions on the underlying factor (theta) based on their survey responses. Specifically, we calculated an overall score by analyzing responses to six satisfaction items derived from the EFA and combining them using IRT to generate a single, weighted measure of teachers' overall sense of satisfaction. This approach considers how teachers respond to the items and the varying difficulty of each item relative to others, leading to a more precise estimate of satisfaction. Difficulty refers to the likelihood that a teacher with a given level of satisfaction would respond favorably to each item. For example, reporting a strong sense of enthusiasm at school (an item with greater difficulty) might require a greater level of satisfaction compared to reporting a connection with students (an item with lower difficulty). This distinction helps ensure that our measure captures varying levels of the satisfaction construct.

Teachers were classified as reporting more satisfaction if their overall score was above the mean ($\theta > 0$), indicating a higher-than-average level of satisfaction across items. Teachers with an overall score below the mean were classified as reporting less satisfaction (See Table 1). The use of a theta (θ) cutoff, such as $\theta > 0$, is a common approach in IRT to classify individuals based on their level of the underlying construct measured (Hambleton & Jones, 1993). This method allowed us to leverage item-level response patterns to create a more accurate and nuanced measure of satisfaction.

Table 1. Satisfaction classifications.

Classification	Relationship to Mean	Description
"More Satisfaction"	$\theta > 0$	The teacher's score is above the mean, indicating a higher-than-average level of satisfaction across items.
"Less Satisfaction"	$\theta < 0$	The teacher's score is below the mean, indicating a lower-than-average level of satisfaction across items.

Second, we used logistic regression to determine the likelihood that different teacher subgroups (e.g., gender identity, race/ethnicity, professional experience) report more satisfaction. This approach allowed us to assess the relationship between demographic factors and teachers' perceptions of satisfaction. We reported the results using predicted probabilities and odds ratios, which provide insight into the relative likelihood of teachers from different subgroups reporting more satisfaction. Furthermore, we applied probability weights to adjust for differences between the sample proportions of racial and ethnic groups and their proportions in the overall population of teachers. We calculated weights as the ratio of the population proportion to the sample proportion for each racial or ethnic group. This approach sought to address potential biases in the sample and ensure the representativeness of our sample. We report primarily on statistically significant results. More details on the methods and results of the logistic regression analyses are provided in Appendix A.

RQ 2 | To what extent does school culture and climate influence teachers' sense of satisfaction?

We employed a three-step approach to answer this research question. First, we constructed a measure of positive school culture and climate using the IRT approach previously discussed. We classified students as reporting a more positive school culture and climate if their overall score was above the mean ($\theta > 0$), indicating an above-average level of perceived positivity across the relevant survey items. We also used IRT to construct individual measures for the subcomponents of school culture and climate, including school leadership, school inclusivity, collegial relationships, instructional resources, and parent/guardian support (See Table 2). Next, we used logistic regression to assess whether more positive school cultures and climates were statistically significant predictors of reporting more satisfaction after controlling for teacher and district[1] characteristics. Finally, we included the individual measures comprising school culture and climate as the independent variable in separate logistic regression models to determine whether different factors increase the likelihood that teachers report more satisfaction. We applied the same probability weights previously discussed.

Table 2. Classifications of positive school culture and climate subcomponents.

Classification	Relationship to Mean	Description
"More Effective School Leadership"	$\theta > 0$	The teacher's score is above the mean, indicating a higher-than-average level of perceived effectiveness across items.

[1] The anonymous teacher survey did not include indicators of school name or code. Only the name of the district a teacher works in was included in the survey data.

“Less Effective School Leadership”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived effectiveness across items.
“More School Inclusivity”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived inclusivity across items.
“Less School Inclusivity”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived inclusivity across items.
“More Collegial Relationships”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived collegiality across items.
“Less Collegial Relationships”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived collegiality across items.
“More Effective Instructional Resources”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived effectiveness across items.
“Less Effective Instructional Resources”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived effective across items.
“More Parent/Guardian Support”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived support across items.
“Less Parent/Guardian Support”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived support across items.

Results

RQ 1 | To what extent does the school culture and climate influence teachers' sense of satisfaction?

This section compares the likelihood that different teacher subgroups report more satisfaction working in their current school. We use the predicted probability and odds ratio estimates from a series of logistic regression models to answer this research question.

Teachers with moderate or extensive professional experience have a higher likelihood of reporting more satisfaction working in their current school.

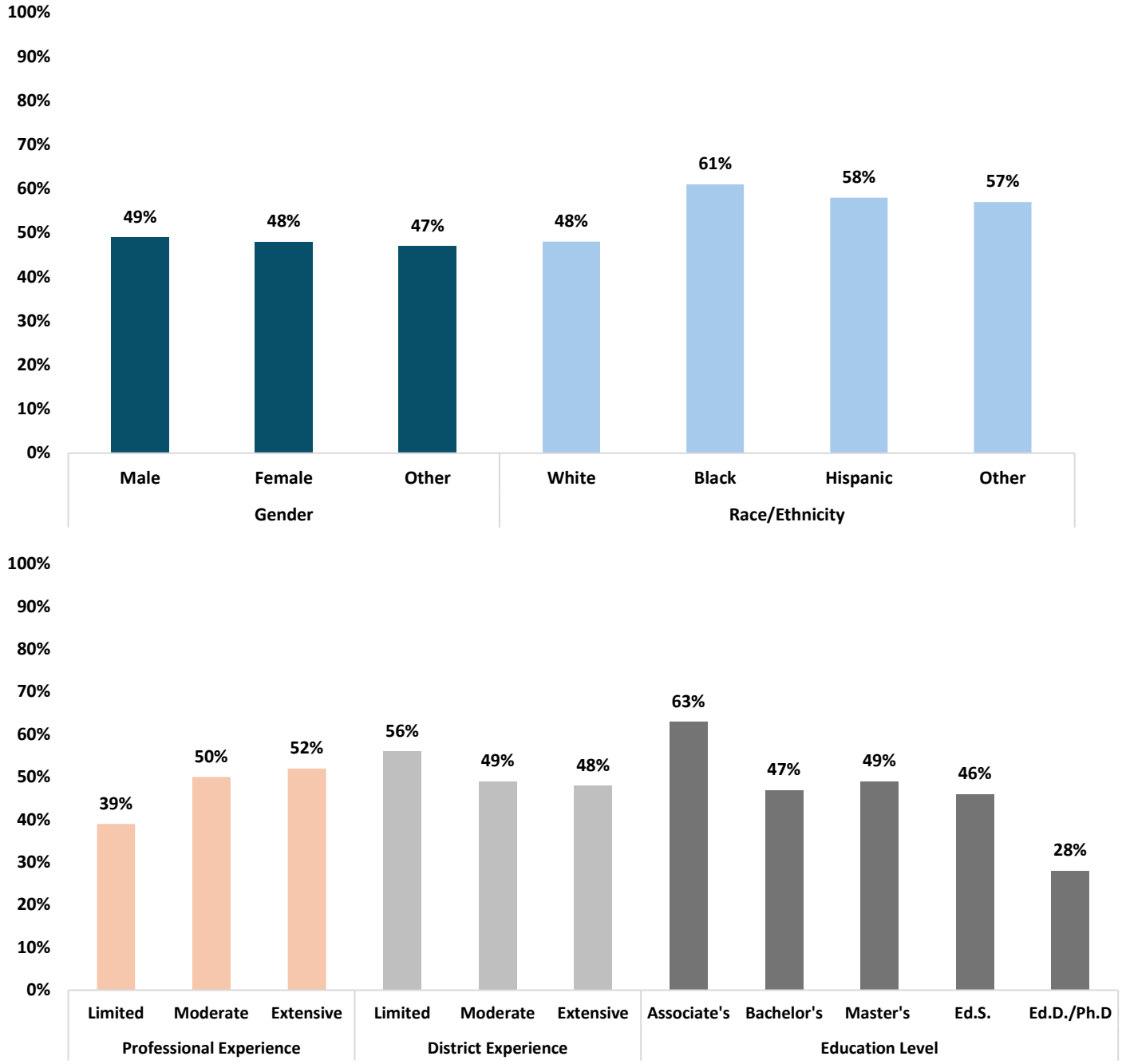
Figure 1 displays the predicted probability that different teacher subgroups report more satisfaction working in their current school. The colored bars represent the predicted probability of reporting feeling satisfied working in their current school for teachers by gender identity (dark blue bar), race and ethnicity (light blue bar), professional experience (light orange bar), district experience (light grey bar), and educational level (dark grey bar) categories.

Results indicate that the predicted probability of teachers with moderate (6 to 15 years) or extensive (16 plus years) professional experience reporting more satisfaction is between 50% and 52%, compared to 39% for teachers with limited professional experience (1 to 5 years). Consequently, teachers with moderate or extensive professional experience have a 54% and 68% higher likelihood of reporting more satisfaction than teachers with limited experience (see Appendix B, Table B2). Other statistically significant findings include the predicted probability of reporting more satisfaction is 56% for teachers with limited experience in their current district, compared to 48% and 49% for teachers with moderate or extensive district experience. Thus, teachers with moderate or extensive district experience have a 21% and 25% lower likelihood of reporting more satisfaction than teachers with less district experience (see Appendix B, Table B2).

One contributing factor to these results is the perceived satisfaction of teachers with moderate or extensive professional experience, but limited experience in their current district (n=548). The theta value for these teachers (0.10) is considerably higher than the theta value for teachers with more professional and district experience (0.05). This implies that more experienced teachers who are new to a district have stronger perceptions of overall satisfaction than their peers with similar professional experience but longer tenure in the same district, possibly due to changes in the professional environment or peer relationships.

Non-statistically significant findings of interest in Figure 1 include the predicted probability of reporting more satisfaction working in their current school is between 58% and 61% for Hispanic or Latino (henceforth titled "Hispanic") and Black or African American (henceforth titled "Black") teachers as compared to 48% for White teachers. Furthermore, the predicted probability of reporting satisfaction working in their current school for teachers with an associate's degree is 63% compared to between 28% and 48% for teachers with more advanced degrees. While interesting, we find that these differences were not statistically significant in the results of the logistic regression models.

Figure 1. The predicted probability of reporting more satisfaction working in their current school for different teacher subgroups.



Note: The probabilities shown in this figure are estimated using a multivariate logistic regression model that includes gender identity, race/ethnicity, professional experience, highest degree attained, and district-level covariates.
~p<.10, * p <.05, ** p<.01, ***p<.001
Source: MI Student Voice educator perception survey; author's analysis.

RQ 2 | To what extent does school culture and climate influence teachers' sense of satisfaction?

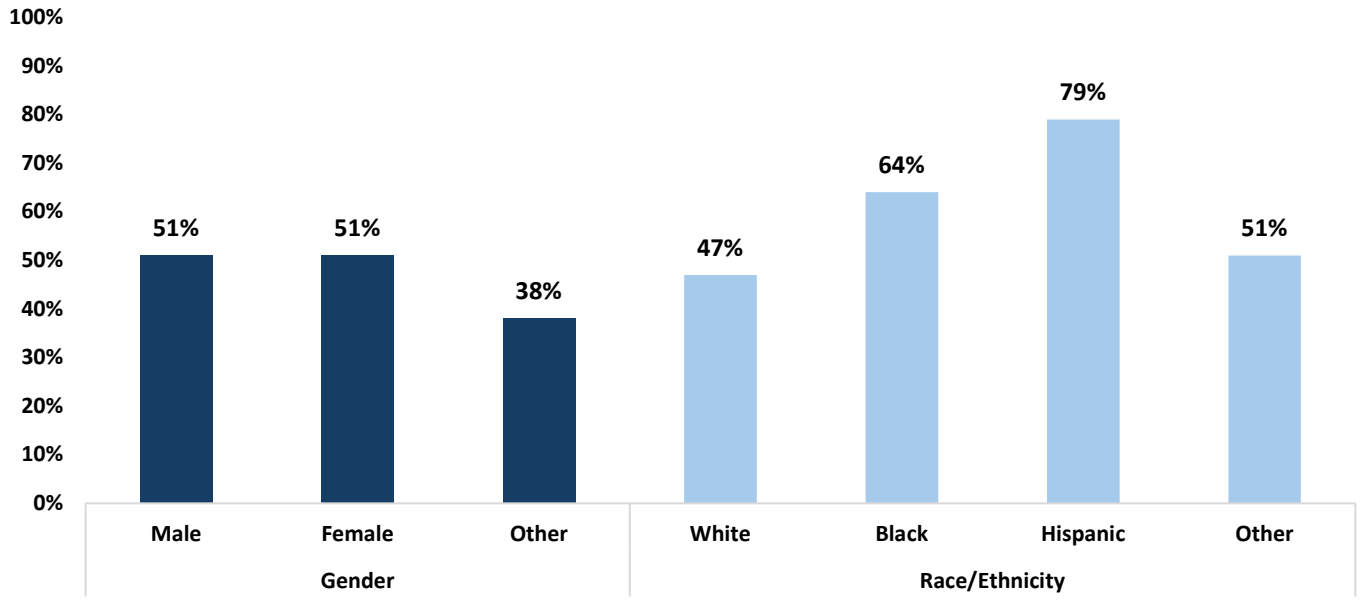
We answer this research question in two parts. First, we compare the likelihood that different teacher subgroups report a more positive school culture and climate. We then tested whether reporting a more positive school culture and climate is a statistically significant predictor of whether or not teachers report more satisfaction working in their current school. We use the predicted probability and odds ratio estimates from a series of logistic regression models to answer this research question (see Appendix B, Table 3 for complete results).

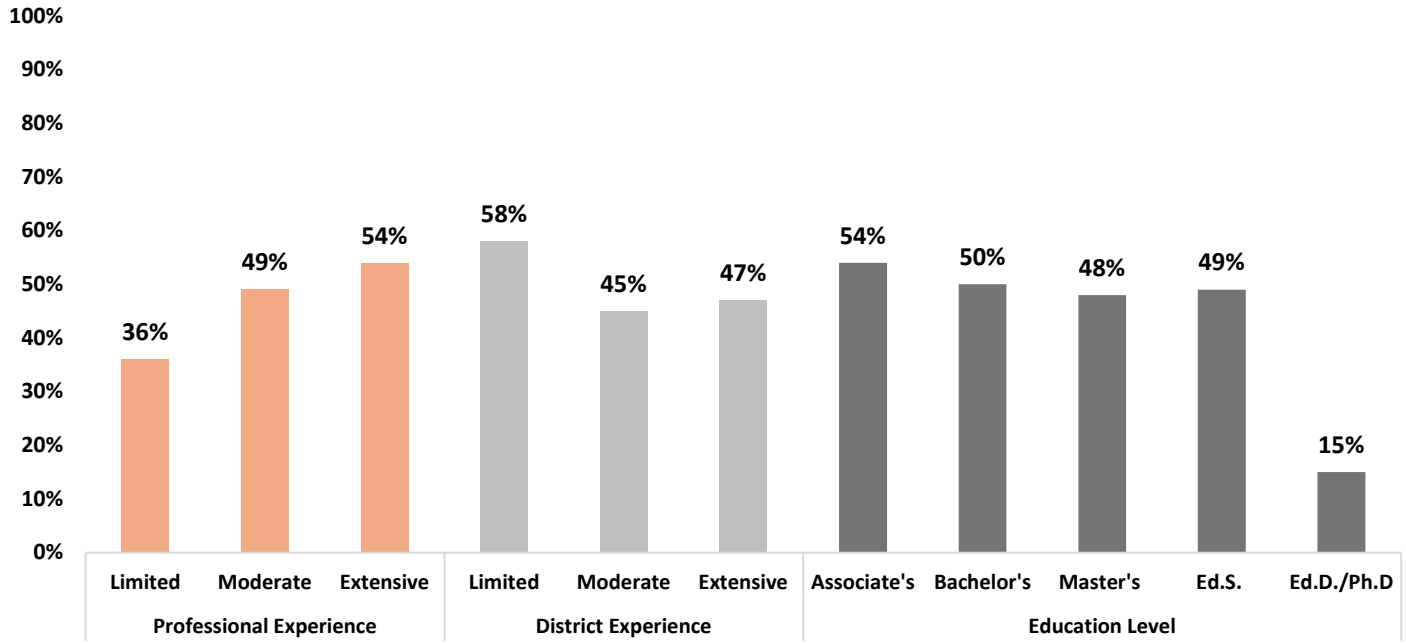
Black and Hispanic teachers have a significantly higher likelihood of reporting a more positive school culture and climate.

Figure 2 displays the predicted probability that different teacher subgroups report more positive school culture and climates. The interpretation of results for gender identity (dark blue bar), race and ethnicity (light blue bar), professional experience (light orange bar), district experience (light grey bar), and educational level (dark grey bar) subgroups in Figure 2 is the same as the previous section.

Results in Figure 2 indicate that the predicted probability of Black and Hispanic teachers reporting a more positive school culture and climate is 64% and 79% compared to 47% for White teachers. Consequently, Black and Hispanic teachers have a two to four times higher likelihood of reporting a more positive school culture and climate (see Appendix B, Table B2). Additionally, teachers with moderate or extensive professional experience reporting a more positive culture and climate is 49% and 54% compared to 36% for teachers with limited experience. Thus, more experienced teachers have a 69% and 107% higher likelihood of reporting a more positive school culture and climate compared to teachers with limited experience (see Appendix B, Figure Table B2). In contrast, the predicted probability of reporting a more positive school culture and climate is 58% for teachers with limited experience in their district compared to 45% and 47% for teachers with more extensive experience. This translates into teachers with more experience in their district having a 37% and 41% lower likelihood of reporting a more positive school culture and climate than teachers with less experience in their current district.

Figure 2. The predicted probability of reporting a positive school culture and climate for different teacher subgroups.





Note: The probabilities shown in this figure are estimated using a multivariate logistic regression model that includes gender identity, race/ethnicity, professional experience, highest degree attained, and district-level covariates.
~p<.10, * p <.05, ** p<.01, ***p<.001
Source: MI Student Voice educator perception survey; author's analysis.

Furthermore, we explored the predicted probability that different teacher subgroups report more effective leadership, school inclusivity, collegial relationships, effective instructional resources, and parent and guardian support. We found that teachers with the most experience working in their current district have a lower likelihood of reporting more effective school leadership and extensive parent/guardian support. For instance, the predicted probability of reporting more effective leadership for teachers with moderate or extensive experience working in their current district was between 47% to

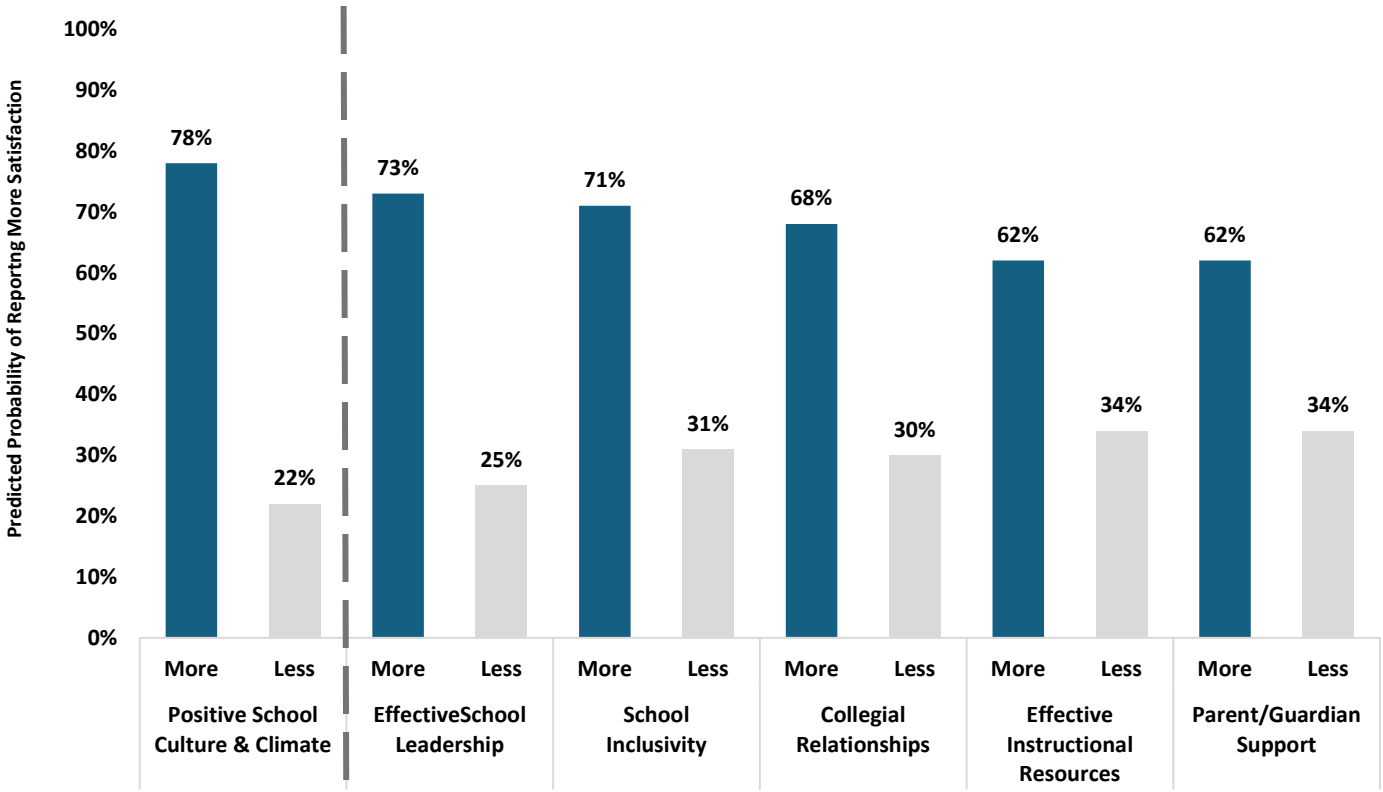
48% compared to 60% for teachers with limited experience working in their current district. Other statistically significant findings included Black teachers having a higher likelihood of reporting more effective leadership and parent/guardian support than White teachers. Results also revealed that teachers with moderate and extensive teaching experience have a higher likelihood of reporting more collegial relationships than teachers with limited teaching experience. Results from these separate logistic regression models are included in Appendix B, Table B2.

Teachers who report a more positive school culture and climate have a significantly higher likelihood of reporting more satisfaction working in their current school.

Figure 3 displays the predicted probability of reporting more satisfaction in their current school for teachers who report a more positive school culture and climate. Results indicate that teachers who report a more positive school culture and climate have a significantly higher likelihood of reporting more satisfaction than their peers who report a less positive school culture and climate. The predicted probability of reporting more satisfaction is 78% for teachers who report a more positive school culture and climate, compared to 22% for teachers who report a less positive school culture and climate (see Figure 3 below). Consequently, teachers who report a more positive school culture and climate have a 13 times higher likelihood of reporting more satisfaction (see Appendix B, Table B3); these results were statistically significant.

Similarly, the predicted probability of reporting more satisfaction for teachers who report more effective leadership, school inclusivity, collegial relationships, effective instructional resources, and parent and guardian support is between 62% and 73% compared to between 25% to 34% for teachers who report less of these conditions. Notably, teachers who report more effective leadership have four times higher likelihood of reporting more satisfaction, making more effective leadership the most robust predictor of job satisfaction within the positive school culture and climate framework. Other subdomains contribute to satisfaction by increasing the likelihood two to three times (see Appendix B, Table B3).

Figure 3. The predicted probability of reporting satisfaction in their current school based on responses to school culture and climate components.



Note: The probabilities shown in this figure are estimated using a multivariate logistic regression model that includes gender identity, race/ethnicity, professional experience, highest degree attained, and district-level covariates.
Source: MI Student Voice educator perception survey; author's analysis.

Discussion

This brief explored the connection between school culture and climate and teachers' satisfaction working in their current school. We found that reporting a more positive school culture and climate significantly increases the likelihood that teachers report more satisfaction working in their current school. Teachers who report a more positive culture and climate have a 13 times higher likelihood of reporting more satisfaction than teachers who report a less positive school culture and climate. Further, teachers who report more effective school leadership have a four times higher likelihood of reporting more workplace satisfaction, making effective leadership the strongest predictor of satisfaction among factors contributing to a more positive school culture and climate.

While these results demonstrate the promise of a positive school culture and climate, certain teacher groups are less likely to report working in such environments. For instance, Black and Hispanic teachers have a significantly higher likelihood of reporting a more positive school culture and climate compared to White teachers. Furthermore, teachers with the longest tenure in their current district have a significantly lower likelihood of reporting a more positive school culture and climate, more effective school leadership, and more extensive parent/guardian support.

Finally, these findings offer valuable insights into the relationship between school culture and climate and teacher satisfaction, but they should be interpreted within the study's limitations. The results should only be generalized to the districts, schools, and teachers who participated in the survey, and the demographics of the respondents may not reflect the broader teacher population in Michigan. Additionally, teachers who had particularly strong or negative feelings about their school may have been more likely to respond to the survey, introducing a potential source of bias in the results. Considering these findings and limitations, we recommend the following four recommendations.

1 | Support district initiatives to better understand teacher satisfaction.

High levels of job satisfaction strongly predict teachers' intention to remain at their current school, while dissatisfaction can lead to increased attrition, disrupt student learning, and incur significant costs for schools (Ingersoll, 2001; Ingersoll & Smith, 2003). The extent to which the factors explored in this report predict satisfaction varies across districts. Thus, addressing issues with teacher satisfaction should begin with collecting and analyzing local data to understand the district-specific needs. MI Student Voice may also create a planning guide for the educator survey which includes guiding questions and helpful resources for districts to better understand their survey results. Additional resources for districts and schools may include the Institute of Educational Sciences' Regional Education Laboratory – Pacific's infographic on teacher wellbeing and the National Center on Safe and Supportive Learning Environments' (NCSSLE) Survey Compendium.

2 | Prioritize leader professional learning on school culture and climate.

Existing literature demonstrates the importance of school leaders in contributing to teacher satisfaction (Liu et al., 2021; Cansoy, 2019) and school culture and climate (Kraft et al., 2016). Our findings show that effective school leadership is positively associated with teacher satisfaction, which is consistent with this

literature base. Consequently, we believe it is important for districts to consider providing resources or professional learning for school leaders focused on establishing and sustaining a positive school culture and climate. Potential resources may include NCSSLE's School Climate Improvement Reference Manual or dedicated planning time, while professional learning might include offering trainings or workshops and pairing leaders with coaches or external consults (Morris et al., 2020). The focus of trainings or coaching could address how to improve school culture and climate, such as developing systems for supporting teachers, organizing and supporting shared leadership, and progress monitoring of school initiatives (Allensworth & Hart 2018). Finally, offering ongoing professional learning for school leaders is critically important because this position is often underfunded, with minimal opportunities to engage in high-quality professional learning, which might hamper professional growth and indirectly impact overall school performance (Allegretto, García, & Weiss, 2022; Rowland, 2017).

3 | Prepare resources on teacher-centered school culture and climate initiatives.

Results indicate that teachers who report working in a positive school culture and climate are 13 times more likely to experience job satisfaction. This finding is consistent with prior research that demonstrates a strong connection between school culture and climate and teacher job satisfaction (Williams III et al., 2024; Duan et al., 2018; Aldridge & Fraser, 2016). Thus, districts may seek to improve their schools' culture and climate as a means of increasing teacher satisfaction. We recommend that the Kent ISD consult the NCSSLE's *Creating a Safe and Respectful Environment in our Nation's Classrooms* modules and the *Teacher Collaboration in Perspective: A Guide to Research* in order to prepare resources to help districts take a teacher centered approach to improving school culture and climate. A teacher-centered approach to school culture and climate would seek to improve collegial and collaborative relationships amongst teachers as well as fostering positive and trusting relationships between students and teachers. Both collegial and collaborative relationships have been shown to be positively related to teacher retention, an indicator of job satisfaction (Kraft et al., 2021; Johnson & Birkland, 2003). Likewise, positive teacher-student relationships can decrease adverse student behaviors which cause teachers stress (Duong et al., 2019; Floress et al., 2024).

4 | Revise the educator survey to include additional constructs related to school culture and climate.

As mentioned in the methods section, the current iteration of the educator survey includes constructs we believe serve as a proxy measure for school culture and climate as they are consistently associated with school culture and climate in the research literature. However, there are other constructs, such as teacher autonomy (Buchanan, 2012), student engagement (Fredricks et al., 2004), professional learning opportunities (Guskey, 2002), and school safety (Bowers, 2001), which also comprise school culture and climate. By not including these constructs, our measure of school culture and climate may be subject to construct underrepresentation – a threat to validity (Reeves & Marbach-Ad, 2016). To overcome this limitation, we propose revising the educator survey to include additional items which measure all constructs related to school culture and climate.

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Appendices

Appendix A: Methods

Data Sources. This validation report draws on data from the Spring 2024 administration of the MI Student Voice Educator Perception Survey. The Kent ISD research department used validated items from publicly available instruments to guide the development of locally constructed items. Survey items sought to inquire about educators' perceptions of well-being, school resources and support, school culture and climate and belonging. Kent ISD administered the survey through Qualtrics.

Sample. Educators from 48 districts in Michigan participated in the survey. At the conclusion of the survey window, 2,838 educators completed the survey. We restricted the sample to 1,891 respondents (67% of responses) who (a) selected "teacher" as their primary role, (b) completed all survey questions, and (c) had demographic data available. Teachers included in the analytic sample work in 47 districts across Michigan.

Table A1. Survey Responses by Participating Districts.

District Name	Full Sample	Analytic Sample	% Analytic Sample
Advanced Technology Academy	55	37	67%
Atlanta Community Schools	10	10	100%
Avondale School District	131	84	64%
Baraga Area Schools	19	13	68%
Bath Community Schools	17	13	76%
Bay-Arenac Community High School	16	8	50%
Brandywine Community Schools	45	35	78%
Buchanan Community Schools	33	21	64%
Burr Oak Community School District	9	8	89%
Carman-Ainsworth Community Schools	10	7	70%
Carney-Nadeau Public Schools	16	13	81%
Cassopolis Public Schools	29	25	86%
Clarenceville School District	54	38	70%
Coloma Community Schools	58	32	55%
Davison Community Schools	115	72	63%
Dearborn Heights School District #7	95	72	76%
Delta-Schoolcraft ISD	9	7	78%
East Lansing School District	210	125	60%
Eaton Rapids Public Schools	41	31	76%
Eau Claire Public Schools	21	13	62%
Flint Cultural Center Academy	40	16	40%
George Washington Carver Academy	16	5	31%
Grand Blanc Community Schools	135	96	71%
The School District of the City of Harper Woods	10	6	60%
Howell Public Schools	308	196	64%
Huron ISD	12	5	42%
International Academy of Flint	51	18	35%

District Name	Full Sample	Analytic Sample	% Analytic Sample
Kent City Community Schools	29	20	69%
Kent ISD	14	7	50%
Lake Fenton Community Schools	118	74	63%
Marysville Public Schools	142	106	75%
Mid Peninsula School District	13	7	54%
Mt. Morris Consolidated Schools	46	34	74%
Niles Community Schools	149	110	74%
North Huron School District	39	22	56%
Redford Union Schools, District No. 1	38	23	61%
Relevant Academy of Eaton County	6	5	83%
Romulus Community Schools	61	43	70%
Sault Ste. Marie Area Schools	74	50	68%
Southfield Public School District	93	61	66%
Stephenson Area Public Schools	23	19	83%
Stockbridge Community Schools	58	40	69%
Trenton Public Schools	86	65	76%
Ubly Community Schools	29	21	72%
Waldron Area Schools	9	6	67%
Watervliet School District	1	0	0%
Westwood Heights Schools	28	19	68%
Wyandotte, School District of the City of	217	153	71%
Total	**2,838**	**1,891**	**67%**

Forty-three percent of teachers included in the analytic sample identified as female, while 41% preferred not to answer or leave the response blank. Further, 83% of teachers identify as White or Caucasian, while over half of educators have 16 or more years of teaching experience. Finally, 40% of teachers work in Elementary while 63% have earned a Master's degree. Table A2 provides descriptive statistics for students in the analytic sample.

Table A2. Descriptive Statistics for Students in Analytic Sample.

Demographic Characteristic	n count	% of Sample
Gender Identity		
Female	805	43%
Male	220	12%
Non-Binary/Third Gender	86	5%
Missing	780	41%
Race and Ethnicity		
American Indian or Alaska Native	0	0%
Asian or Asian American	0	0%
Black or African American	55	3%
Hispanic, Latinx or Spanish Origin	14	1%
Other	126	7%
Prefer Not to Answer	124	7%
White	1,572	83%
Total Professional Experience		
0-5 years	305	16%
6-15 years	550	29%
16-25 years	924	49%
Over 25 years	112	6%
Experience in District		
0-5 years	686	36%
6-15 years	451	24%
16-25 years	587	31%
Over 25 years	167	9%
Grade Level		
Elementary	751	40%
Middle	360	19%
High School	580	31%
Other	110	6%
Prefer Not to Answer	81	4%
Missing	9	<1%
Education Level		
Associate's Degree	10	1%
Bachelor's Degree	575	30%
Master's Degree	1,193	63%
Educational Specialist Degree	33	2%
Doctoral Degree	10	1%
Other	13	1%
Prefer Not to Answer	50	3%
Missing	7	<1%

Measures. This research brief uses concepts or constructs (henceforth titled "factors") derived from the MI Student Voice Educator Perception Survey validation report. In this report, we applied an exploratory factor analysis (EFA) to examine patterns in survey responses. This statistical technique explores relationships between survey items and groups items with common themes into underlying factors. Factors derived from an EFA include multiple questions that "hang together" because of similar patterns

of responses. For example, school support is a factor you cannot measure directly. However, you can measure whether teachers report (a) professional learning opportunities are tailored to instructional needs, (b) school leaders provide feedback on instruction, and (c) school leaders are effective in handling student discipline concerns. The six factors derived from the validation report and used in this research brief include:

- **School Leadership:** Survey items associated with this factor include teachers' perceptions of leaders' support when facing challenges at work, leaders' influence on the quality of their work, how respectful leaders are towards teachers, and whether leaders' actions demonstrate they have the best interest of the school (See Appendix B, Table B1 Rows 2-14).

- **Job Satisfaction:** Items related to this factor inquire about teachers' enthusiasm for being at school, the likelihood teachers will return the following school year, the likelihood teachers would recommend this school to other parents/guardians, and whether teachers feel connected to students (See Appendix B, Table B1 Rows 16-22).

- **School Inclusivity:** Survey items associated with this factor include the extent teachers believe the school is a welcoming environment for students, provides opportunities for all students to try and do their best, provides enough resources for students, and prepares students to be open and respectful of diverse perspectives (See Appendix B, Table B1 Rows 24-33).

- **Collegial Relationships:** Items related to this factor include the extent teachers get along with other staff members at school, whether adults respect divergent points of view, how respectful colleagues are towards each other, and whether adults feel connected to each other (See Appendix B, Table B1 Rows 35-40).

- **Instructional Resources:** The three items related to this factor inquire about whether teachers have high-quality instructional resources to support student learning, have enough instructional resources to positively affect student performance, and how well current instructional resources support students' achievement (See Appendix B, Table B1 Rows 42-44).

- **Parent/Guardian Support:** Items related to this factor inquire about how respectful parents and students are towards staff and whether parents are supportive of their children's learning (See Appendix B, Table B1 Rows 48-50).

Additionally, we constructed a measure of **school culture and climate**. This measure includes survey items related to leadership effectiveness, school inclusivity, collegial relationships, instructional resources, and parent/guardian support. We believe items associated with these factors can serve as a proxy measure for school culture and climate because they align with dimensions identified in prior literature (Day & Leithwood, 2007; Forlin, 2010; Goddard, Hoy, & Woolfolk Hoy, 2000; Darling-Hammond, 2000; Sanders & Lewis, 2005). However, we recognize a more complete measure of school culture and climate would include items associated with teacher autonomy (Buchanan, 2012), student engagement (Fredricks et al., 2004), professional learning opportunities (Guskey, 2002), and school

safety (Bowers, 2001), amongst others. We will reconstruct this measure if additional items aligned to prior literature are included in future iterations of the MI Student Voice Educator Perception Survey.

Analytic Strategy. Below we describe the analytic strategy used to answer the research questions included in this brief.

RQ 1 | How do teachers' perceptions of satisfaction vary by gender identity, race/ethnicity, or professional experience?

We employed a two-step approach to answer this research question. First, we constructed a measure of satisfaction using Item Response Theory (IRT), which estimates teachers' positions on the underlying factor (theta) based on their survey responses. Specifically, we calculated an overall score by analyzing responses to six satisfaction items derived from the EFA and combining them using IRT to generate a single, weighted measure of teachers' overall sense of satisfaction. This approach considers how teachers respond to the items and the varying difficulty of each item relative to others, leading to a more precise estimate of satisfaction. Difficulty refers to the likelihood that a teacher with a given level of satisfaction would respond favorably to each item. For example, reporting a strong sense of enthusiasm at school (an item with greater difficulty) might require a greater level of satisfaction compared to reporting a connection with students (an item with lower difficulty). This distinction helps ensure that our measure captures varying levels of the satisfaction construct.

Teachers were classified as reporting more satisfaction if their overall score was above the mean ($\theta > 0$), indicating a higher-than-average level of satisfaction across items. Teachers with an overall score below the mean were classified as reporting less satisfaction (See Table A3). The use of a theta (θ) cutoff, such as $\theta > 0$, is a common approach in IRT to classify individuals based on their level of the underlying construct measured (Hambleton & Jones, 1993). This method allowed us to leverage item-level response patterns to create a more accurate and nuanced measure of satisfaction.

Table A3. Satisfaction classifications.

Classification	Relationship to Mean	Description
"More Satisfaction"	$\theta > 0$	The teacher's score is above the mean, indicating a higher-than-average level of satisfaction across items.
"Less Satisfaction"	$\theta < 0$	The teacher's score is below the mean, indicating a lower-than-average level of satisfaction across items.

Second, we used logistic regression to determine the likelihood that different teacher subgroups (e.g., gender identity, race/ethnicity, professional experience) report more satisfaction. This approach allowed us to assess the relationship between demographic factors and teachers' perceptions of satisfaction. We reported the results using predicted probabilities and odds ratios, which provide insight into the relative likelihood of teachers from different subgroups reporting more satisfaction. Furthermore, we applied probability weights to adjust for differences between the sample proportions of racial and ethnic groups and their proportions in the overall population of teachers. We calculated weights as the ratio of the population proportion to the sample proportion for each racial or ethnic group. This approach sought to address potential biases in the sample and ensure the representativeness of our sample. We report

primarily on statistically significant results. More details on the methods and results of the logistic regression analyses are provided in Appendix A.

RQ 2 | To what extent does the school culture and climate influence teachers' sense of satisfaction?

We employed a three-step approach to answer this research question. First, we constructed a measure of positive school culture and climate using the IRT approach previously discussed. We classified students as reporting a more positive school culture and climate if their overall score was above the mean ($\theta > 0$), indicating an above-average level of perceived positivity across the relevant survey items. We also used IRT to construct individual measures for the subcomponents of school culture and climate, including school leadership, school inclusivity, collegial relationships, instructional resources, and parent/guardian support (See Table A4). Next, we used logistic regression to assess whether more positive school cultures and climates were statistically significant predictors of reporting more satisfaction after controlling for teacher and district[2] characteristics. Finally, we included the individual measures comprising school culture and climate as the independent variable in separate logistic regression models to determine whether different factors increase the likelihood that teachers report more satisfaction. We applied the same probability weights previously discussed.

Table A4. Classifications of positive school culture and climate subcomponents.

Classification	Relationship to Mean	Description
"More Effective School Leadership"	$\theta > 0$	The teacher's score is above the mean, indicating a higher-than-average level of perceived effectiveness across items.

[2] The anonymous teacher survey did not include indicators of school name or code. Only the name of the district a teacher works in was included in the survey data.

“Less Effective School Leadership”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived effectiveness across items.
“More School Inclusivity”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived inclusivity across items.
“Less School Inclusivity”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived inclusivity across items.
“More Collegial Relationships”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived collegiality across items.
“Less Collegial Relationships”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived collegiality across items.
“More Effective Instructional Resources”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived effectiveness across items.
“Less Effective Instructional Resources”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived effective across items.
“More Parent/Guardian Support”	$\theta > 0$	The teacher’s score is above the mean, indicating a higher-than-average level of perceived support across items.
“Less Parent/Guardian Support”	$\theta < 0$	The teacher’s score is below the mean, indicating a lower-than-average level of perceived support across items.

Appendix B: Additional Tables

Table B1. MI Student Voice 2024 Educator Survey Factor Loadings.

Question Text	Question Number	Factor Loading
Factor 1: Leadership Effectiveness	**Alpha = 0.95**	
Is your school leadership supportive when you face challenges at work?	Q_180_13	0.94
Does the influence of your school leadership have a positive impact on the quality of your work?	Q_180_6	0.89
How respectful is your school's leadership towards you?	Q_144_2	0.88
Do the actions of your school's leadership demonstrate that they have the best interest of the school most of the time?	Q_145_10	0.86
Do you feel like your school's leadership values a positive environment for students, teachers, or staff?	Q_37_11	0.83
Is your school leadership clear with their communication about expectations for teachers and staff?	Q_130_3	0.82
Is your school leadership effective in handling student discipline and behavioral problems?	Q_180_14	0.78
Do your school leaders understand you as a person?	Q_49_9	0.73
How comfortable do teachers or staff feel in raising issues and concerns that are important to them with school leadership?	Q_129_5	0.69
Does your school leadership give feedback on your instruction?	Q_180_12	0.65
Do you have opportunities to contribute to the development of goals in your school?	Q_130_5	0.57
Does your school feel like a learning community where ideas and suggestions for improvement are encouraged?	Q_130_2	0.55
Do you feel like the culture of your school supports collaboration between colleagues?	Q_37_12	0.47
Factor 2: Job Satisfaction	**Alpha = 0.80**	
How enthusiastic do you feel about being at school on most days?	Q_129_1	0.72
Does your job matter to you?	Q_49_5	0.65
How likely are you to return to this school next year?	Q_181_3	0.61
Do you feel connected to the students at your school?	Q_49_6	0.56
How likely are you to recommend this school to parents seeking a place for their child?	Q_181_4	0.53
How confident are you that students are safe in your school?	Q_181_7	0.43
Factor 3: School Inclusivity and Respect	**Alpha = 0.91**	
Do students from all cultures, backgrounds, races/ethnicities, religions, abilities, etc. have the same opportunities to do well in your school?	Q_154_4	0.81
Is your school a place where students from all cultures, backgrounds, races/ethnicities, religions, abilities, etc. are able to try and do their best?	Q_121_1	0.79
Does your school provide enough resources for students from all cultures, backgrounds, races/ethnicities, religions, abilities, etc. to do well?	Q_154_5	0.78
Does your school make all types of people feel welcomed and included?	Q_122_9	0.69
How well does your school prepare students to be open and respectful of diverse perspectives from different cultures, backgrounds, races/ethnicities, religions, abilities, etc.?	Q_175_11	0.69
Do you provide experiences to students from all cultures, backgrounds, races/ethnicities, religions, abilities, etc. to help them be successful in your school?	Q_154_3	0.67
How confident are you that students at your school can have open and honest conversations with one another about different cultures, backgrounds, races/ethnicities, religions, abilities, etc.?	Q_175_10	0.66

Do adults treat people from all cultures, backgrounds, races/ethnicities, religions, abilities, etc. in your school with respect?	Q_122_2	0.65
Do you feel that you are well prepared to teach or work with students from all cultures, backgrounds, races/ethnicities, religions, abilities, etc.?	Q_121_2	0.55
Do students treat people from all cultures, backgrounds, races/ethnicities, religions, abilities, etc. in your school with respect?	Q_122_1	0.55
Factor 4: Collegial Relationships and School Culture	**Alpha = 0. 87**	
Do you get along well with other staff members at your school?	Q_50_1	0.80
Do other adults in your school respect your point of view, even when they disagree with you?	Q_50_3	0.78
How respectful are your colleagues towards you?	Q_144_6	0.77
Do you feel connected to your colleagues at school?	Q_49_8	0.70
Do you feel like you belong at your school?	Q_49_10	0.52
How confident do you feel that there is an atmosphere of trust and mutual respect among adults within your school?	Q_181_6	0.43
Factor 5: Instructional Resources	**Alpha = 0.88**	
Do you have high quality instructional resources to support your students' learning?	Q_145_15	0.91
Do you have enough instructional resources to positively affect student performance?	Q_145_9	0.90
How well are your current instructional resources working to support your students' achievement and growth?	Q_37_4	0.76
Factor 6: Parent Communication	**Alpha = n/a**	
Do you communicate with parents about how they can help their children learn?	Q_27_5	0.71
Factor 7: Parent/Guardian Support	**Alpha = 0.74**	
How respectful are the parents towards you?	Q_144_3	0.79
How respectful are your students towards you?	Q_144_7	0.69
Are the parents of your students supportive towards their children's learning?	Q_27_8	0.59
Factor 8: Teacher Effectiveness	**Alpha = 0.78**	
How comfortable are you with helping the most academically challenged students to learn in your classroom?	Q_143_3	0.71
How effective do you think you are at managing disruptive students?	Q_143_2	0.70
How effective do you think you are at engaging with students who are less motivated to learn?	Q_143_1	0.66
Are you able to give quality feedback on students' work?	Q_27_9	0.40

Source: MI Student Voice Educator Perception Survey data; author's analysis.

Table B2. The likelihood of teachers reporting more satisfaction, more positive culture and climate, more effective leadership, more inclusivity, more collegiality, more effective instructional resources, and more parent/guardian support.

Sample	Job Satisfaction	School Culture & Climate	School Leadership	School Inclusivity	Collegial Relationships	Instructional Resources	Parent/Guardian Support
Gender Identity							
Female	0.99	0.98	0.95	0.96	0.88	1.17	1.08
	(0.16)	(0.17)	(0.16)	(0.15)	(0.14)	(0.19)	(0.17)
Other	0.92	0.58	0.75	1.27	0.55	1.07	0.68
	(0.32)	(0.27)	(0.34)	(0.41)	(0.18)	(0.35)	(0.23)
Race and Ethnicity							
Black	1.67~	2.00*	2.63**	1.76~	1.40	2.11**	3.16**
	(0.51)	(0.59)	(0.77)	(0.51)	(0.41)	(0.63)	(1.05)
Hispanic	1.49	4.21*	3.79~	1.18	2.50	2.26	1.01
	(0.79)	(2.80)	(2.62)	(0.98)	(1.50)	(1.26)	(0.56)
Asian	1.44~	1.17	1.18	1.15	1.37~	1.27	1.20
	(0.27)	(0.23)	(0.23)	(0.22)	(0.27)	(0.26)	(0.24)
Other	1.03	0.93	0.80	1.05	1.39	0.94	0.78
	(0.22)	(0.21)	(0.19)	(0.21)	(0.31)	(0.19)	(0.16)
Professional Experience							
Moderate Experience	1.54*	1.69*	1.27	1.24	1.33~	1.18	1.52*
	(0.27)	(0.32)	(0.24)	(0.21)	(0.23)	(0.20)	(0.28)
Extensive Experience	1.68**	2.07**	1.56**	1.59*	1.78**	1.11	1.71**
	(0.33)	(0.44)	(0.32)	(0.32)	(0.34)	(0.21)	(0.32)
District Experience							
Moderate Experience	0.75*	0.59**	0.59***	0.92	0.72*	1.07	0.85
	(0.11)	(0.09)	(0.09)	(0.13)	(0.11)	(0.15)	(0.12)
Extensive Experience	0.72*	0.63**	0.62**	0.84	0.79	0.99	0.96
	(0.12)	(0.11)	(0.11)	(0.13)	(0.13)	(0.16)	(0.15)
Education Level							
Bachelor's Degree	0.52	0.83	0.57	0.90	1.51	0.72	0.73
	(0.30)	(0.60)	(0.44)	(0.56)	(0.96)	(0.49)	(0.47)
Master's Degree	0.58	0.78	0.53	0.81	1.31	1.04	1.11
	(0.34)	(0.56)	(0.42)	(0.51)	(0.84)	(0.70)	(0.72)
Ed. Specialist	0.50	0.79	0.47	0.58	1.15	0.69	1.01
	(0.35)	(0.66)	(0.41)	(0.42)	(0.85)	(0.53)	(0.76)
Doctoral Degree	0.23	0.14	0.34~	0.41	0.81	1.40	0.53
	(0.21)	(0.17)	(0.35)	(0.38)	(0.75)	(1.28)	(0.48)

Sample	Job Satisfaction	School Culture & Climate	School Leadership	School Inclusivity	Collegial Relationships	Instructional Resources	Parent/Guardian Support
Other	1.77	2.05	1.26	1.10	3.77	1.19	1.34
	(1.48)	(1.97)	(1.28)	(0.91)	(3.45)	(1.04)	(0.21)
Constant	0.91	0.97	1.91	0.67	0.60	0.99	0.66
	(0.55)	(0.71)	(1.54)	(0.42)	(0.39)	(0.68)	(0.44)
Observations	1,891	1,891	1,891	1,891	1,891	1,891	1,891

Note: The odds ratios are estimates using logistic regression models. The reference groups we compare results against include Female, White, and Upper elementary students.
[* p <.05, ** p<.01, ***p<.001]

Source: MI Student Voice Educator Perception Survey; author's analysis.

Table B3. The likelihood of teachers reporting more satisfaction as a function of reporting a more positive culture and climate, more effective leadership, more inclusivity, more collegial relationships, more effective instructional resources, and more parent/guardian support.

	Job Satisfaction						
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
School Culture & Climate	12.88***						
	(2.02)						
School Leadership		9.73***					4.21***
		(1.45)					(0.54)
School Inclusivity			4.13***				2.95***
			(0.49)				(0.36)
Collegial Relationships				6.20***			2.38***
				(0.76)			(0.30)
Instructional Resources					3.32***		1.78***
					(0.38)		(0.22)
Positive/Guardian Support						3.32***	2.60***
						(0.38)	(0.32)
Demographic Controls	X	X	X	X	X	X	X
Constant	1.94	0.63	0.42	0.77	0.60	0.89	0.08
	(1.40)	(0.37)	(0.28)	(0.54)	(0.44)	(0.65)	(0.06)
Observations	1,891	1,891	1,891	1,891	1,891	1,891	1,891

Note: The odds ratios are estimates using logistic regression models. The reference groups we compare results against include Female, White, and Upper elementary students.

[* p <.05, ** p<.01, ***p<.001]

Source: MI Student Voice Educator Perception Survey; author's analysis.