Changes in the Perception of School Climate and Self-Identified Race in Two Toronto Cohorts

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Abstract: Drawing on Toronto District School Board (TDSB) Student Census data (2006 and 2011), we examine if there have been changes in the perceptions of school climate between two cohorts of high school students. First, we contextualize our study and review relevant policy changes to student inclusion and equity to set the stages for examining, by way of a sort of “natural experiment”, to see if there was a change in the perception of school climate by students after these policy changes occurred. We then review the scholarship on school climate, its relationship to race, and its relationships to educational experiences and outcomes. We then examine how self-identified race is associated with students’ perceptions of school climate in both cohorts, interpreting our results within a
Critical Policy Analysis framework. We find evidence of improved school climate from 2003 to 2008, although the changes have not been uniform by self-identified race, and in some cases have worsened, particularly for self-identified Black and Latin American students.

**Keywords:** race; school climate; critical policy analysis; education; Canada; Toronto

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### Cambios en la percepción del clima escolar y la raza autoidentificada en dos cohortes de Toronto

**Resumen:** A partir de los datos recopilados en el censo de estudiantes (2006 y 2011), de Toronto District School Board (TDSB), examinamos si hubieron cambios en las percepciones del ambiente escolar entre dos grupos de estudiantes de secundaria. En primer lugar, contextualizamos nuestro estudio y revisamos los cambios de políticas relacionada con la inclusión y la equidad de los estudiantes, con el fin de sentar las bases para examinar, mediante una especie de “experimento natural”, si hubo un cambio en la percepción que los estudiantes tienen sobre el ambiente escolar después de que se produjeran dichos cambios políticos. A continuación, revisamos las investigaciones sobre el ambiente escolar, su relación con los aspectos raciales, así como con las experiencias y los resultados educativos. Luego, examinamos cómo la autoidentificación racial se asocia con las percepciones de los estudiantes sobre el ambiente escolar en ambos grupos, interpretando nuestros resultados dentro de un marco de análisis político crítico. Encontramos indicios de una mejora del ambiente escolar entre los años 2003 y 2008. Sin embargo, los cambios no fueron uniformes en función de la auto identificación racial e incluso, en algunos casos, empeoraron, sobre todo para los alumnos que se auto identifican como negros y latinoamericanos.

**Palabras-clave:** raza; ambiente escolar; análisis político crítico; educación; Canadá; Toronto

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### Mudanças na percepção do clima escolar e raça autoidentificada em duas coortes de Toronto

**Resumo:** Baseando-nos nos dados dos Censos estudantis do Toronto District School Board (TDSB) (2006 e 2011), analisamos se ocorreram mudanças na percepção do ambiente escolar entre duas coortes de estudantes do ensino secundário. Em primeiro lugar, contextualizamos o nosso estudo e revemos as alterações políticas relevantes na inclusão e igualdade dos alunos para definir as etapas da análise, através de uma espécie de “experiência natural”, para verificar se houve uma mudança na percepção do meio escolar por parte dos alunos após a ocorrência destas modificações de políticas. Depois, revemos a bolsa de estudos no clima escolar, a sua relação com a raça e as suas relações com experiências e resultados educativos. Examinamos então como a raça autoidentificada está associada à percepção dos alunos sobre o ambiente escolar em ambas as coortes, interpretando os nossos resultados no âmbito de um enquadramento de Análise de Políticas Críticas. Encontramos evidências de uma melhora do meio escolar entre 2003 e 2008, embora as alterações não tenham sido uniformes por raça autoidentificada, e em alguns casos pioraram, particularmente para os estudantes negros e latino-americanos autoidentificados.

**Palavras-chave:** raça; ambiente escolar; análise política crítica; educação; Canadá; Toronto
Changes in the Perception of School Climate and Self-Identified Race in Two Toronto Cohorts

Schools are the main source of socialization after the family. The climate in which pupils are educated and nurtured is a crucial factor in the shaping of young people. However, we know that not all students experience school in the same way. Improving the climate of schools around safety and equity have been priorities in Ontario Ministry of Education policies since 2006. But have these policy changes resulted in any actual change to how students feel about their schooling experiences?

Drawing on Toronto District School Board (TDSB) Student Census data (2006 and 2011), we examine if there have been changes in the perceptions of school climate between two cohorts of high school students. First, we contextualize our study and review relevant policy changes to student inclusion and equity to set the stage for examining, by way of a sort of “natural experiment,” to see if there was a change in the perception of school climate by students after these policy changes occurred. We then review the scholarship on school climate, its relationship to race, and its relationships to educational experiences and outcomes. We then examine how self-identified race is associated with students’ perceptions of school climate in both cohorts, interpreting our results within a Critical Policy Analysis framework.

Context

With the city of Toronto at its center, surrounding municipalities including Peel, Halton, York, and Durham regions, create the Greater Toronto Area (GTA), a megalopolis comprised of 5.9 million people (Statistics Canada, 2017b). This region is often lauded for its multicultural populace; racialized people comprise the majority of citizens (51.4% of the total population), with South Asian (16.6%), Chinese (10.8%), and Black (7.5%) communities being the three largest visible minority groups (Statistics Canada, 2017a). Within this region, students can attend either public Catholic or secular, French or English language schools, with the Toronto District School Board (TDSB) being the largest secular English school board in Canada, serving nearly 250,000 students (Toronto District School Board, 2018). The TDSB is also the only school board in the GTA that currently collects disaggregated data on its student population and at the time of writing through its quinquennial Student Census of high school students.

Policy Context in Ontario

Under the provincial Progressive Conservative government in 2000, the Safe Schools Act was introduced as part of the “zero tolerance” policy solutions to respond to perceived school violence (Education Act, 1990; Kovalenko, 2012). The most highly criticized changes to disciplining students that the Safe Schools Act entailed was the mandatory suspension or expulsion of students, compounded with police intervention when committing serious rule violation, such as threatening or seriously harming another person or possessing illegal substances. The Safe Schools Act meant that both teacher and principals also had authority to suspend students committing these infractions. A short time after the introduction of the Safe Schools Act, there was public outcry from parents, community workers and students, who demanded a review of the policies. In 2003, there was also a shift to a Liberal government and community advocacy led to an official investigation and complaint

1 Visible minority is a contested term used in the Canadian policy contexts to describe non-White and non-Aboriginal ethnic and racial groups (Li, 2003; Statistics Canada, 2016).
from the Ontario Human Rights Commission in 2004, outlining the “disproportionate impact on racial minority students and students with disabilities” in the Safe Schools Act and related “zero tolerance” policies (Bhattacharjee, 2003).

A response to the Ontario Human Rights Commission report was made with the creation of the Safe Schools Action Team by the government of Ontario and commissioned to launch a review of the Safe Schools Act and related policies and programs (Safe Schools Action Team 2006). In 2006, the Safe Schools Action Team issued a report summarizing the results of their review, which included a public consultation of parents, educators, students and other community members across Ontario” (Safe Schools Action Team, 2006). The report urged prevention mechanisms to achieving safer and more positive school climates through incorporating progressive disciplining methods and community and parental involvement in the disciplining process (Ontario Ministry of Education, 2006).

The Ontario Human Rights Commission also filed a formal complaint against the TDSB for its enforcement of the Safe Schools Act and other disciplinary policies that were disproportionately affecting racialized students and students with disabilities. Particularly, for failing to meet its legal obligations to provide educational support to students suspended or expelled from their schools (Kovalenko, 2012). Revisions were passed in 2008 by the TDSB to address these complaints, including TDSB staff training on cultural awareness and how to prevent racial profiling, as well as concerted efforts to hire more staff members from racialized groups (Kovalenko, 2012).

A few years later, another report was released by the Ontario Ministry of Education. In 2009, the “Ontario’s Equity and Inclusive Education Strategy” report was released on the grounds that “[e]vidence consistently shows that some groups of students tend to face barriers to learning” (Ontario Ministry of Education, 2009, p. 14). Furthermore, the report stated that “[o]ur schools should be places where students not only learn about diversity but experience it” (Ontario Ministry of Education, 2009, p. 4). Some of the action items for the strategy included an allocation of four million dollars for schoolboards to promote equity and inclusion, revisions to the social science and humanities curriculum, expansions to school climate surveys, progress reporting by boards, the implementation of board equity and employment practices, and classroom reviews. The Strategy focused on addressing multiple types of equity including racial, gender and gender identity, language, religious, socioeconomic status, and ability.

The emphasis in supporting diversity and students facing barriers, only partially addressed the earlier Ontario Human Right’s Commissioned report mentioned, on the Safe Schools Act describing that:

although the Ministry of Education and school boards have acknowledged and addressed to some extent the possibility that the application of discipline may have a disproportionate impact on students with disabilities, there has been strong resistance to acknowledge or addressing the possible disproportionate impact on racial minority students. The level of resistance is remarkably high given that there is clear and credible evidence of a disproportionate impact on racial minority students in other jurisdictions and Black community groups in the GTA have raised the issue publicly since at least the mid-1990s. (Bhattacharjee, 2003, p. 64)

Thus, between 2006 and 2009, some major policy changes occurred in the Ontario education landscape that were aimed at changing aspects of school climate, particularly around disciplinary issues and equity/inclusion. These two policy initiatives have the potential to impact how all students, and particularly marginalized or racialized students, experience school, especially since, in the case of the Safe Schools Act, it was racialized students who were more likely disciplined. With an
acknowledgement of these unfair and harmful practices, the intention of modified policies around equity, inclusion, and disciplinary procedures were mandated with the improvement of student well-being in mind.

School Climate

School climate is a key factor in shaping student success, affecting grade performance and subsequent post-secondary (PSE) transitions. School climate can be defined as how students experience their school life including the quality and character of their schools (Wang et al., 2014). However, the many aspects that make up a positive school climate are broad and varied. For example, Thapa and colleagues (2013) discuss several components such as: school safety, healthy relationships, engaged learning and teaching, and school improvement efforts. Aldridge & McChesney (2018) argue that school climate is also comprised of social and peer connectedness of students in their academic environment.

Interpersonal interactions within the schooling environment contribute to a student’s sense of belonging. Belongingness is a complex process with many dimensions and informs motivation, academic engagement, and academic success, while lack thereof, can contribute to feelings of alienation, resulting in poor educational outcomes (Goodenow & Grady, 1993). Therefore, school climate is heavily shaped by a student’s sense of belonging in the schooling environment, impacting academic performance.

One key dimension of belonging and connectedness that shapes school climate is peer relationships. Positive peer relationships often have a positive association with academic achievement (Roseth et al., 2008). They can also act as a source of social and emotional support that bolsters motivation and informs emotional well-being (Furrer & Skinner, 2003; Wentzel, 2005). In these ways, positive peer relationships contribute to school climate by helping make students feel connected to their learning environment. This connectedness or lack thereof, cannot be solely attributed to student’s peer group and colleagues, but also to teachers and school administrators (Shen et al., 2012, p. 241). These dimensions of belonging entail students having good relationships with their peers and teachers as well as school administrators, which is shown to aid engagement in academic activities (Willms, 2003, p. 8). In the case of urban youth, Goodenow and Grady (1993) argue that feelings of belonging have a greater impact on academic motivation even more than friends or cliques.

Teacher relationships play a role in shaping school climate as a student’s sense of belonging is more likely to be informed by the nature of the relationship with teachers simply due to the power dynamics and “distance” within the classroom (Chiu et al., 2012, p. 178). Therefore, some scholars argue that the impact of teachers is stronger than that of peers, as teachers serve as the most consistent and substantial influence on adolescents’ educational values, expectations, and engagement (Shen et al., 2012, p. 242).

School Climate and Race

In the case of cities with diverse racial compositions, it is also important to understand the impact of belonging for a wide range of students from diverse ethno-racial groups. Faircloth and Hamm (2005) argue that ethno-racial subgroup membership can either enhance or be detrimental to overall feelings of belonging, depending on how the student is positioned. Hegemonic cultural practices enforced in schools can result in a “culture clash” for students from minoritized groups.

Students who are socially positioned in different ways due to race and ethnicity often experience their school climates and belongingness differently due to discrimination. Although
school climate is often described as specific characteristics of individual schools, students within the same school often experience school climate differently based on their race (Voight et al., 2015). Napoli, Marsiglia, and Kulis (2003) noted that while belonging is important for all students regardless of ethnic or cultural affiliation, for ethnic minority students, the level of belonging remains a salient factor in their academic achievement.

Results from a recent study in Central New York high schools showed clear racial and ethnic differences in perceptions of teacher treatment. For Black students, perceptions of differential treatment served as a predictor of school climate perceptions (Pena-Shaff et al., 2018). Racial disparities in educational achievement in Toronto have also been well-documented. Black students in particular often experience alienating and exclusionary learning environments evidenced by their severe underrepresentation in gifted programs, coupled with gross overrepresentation in special education, academic pathways that block university, and disproportionate discipline practices like suspensions and expulsions (James et al., 2017). Other studies and media reports reinforce these findings revealing patterns of disproportionate disciplining and criminalization of Black youth in GTA schools (CBC News, 2017; Gordon, 2017; Toronto District School Board, 2017).

Therefore, while not overt, poor relationships and perceptions of school climate are pervasive in the scholarship regarding Black students in the GTA context. For example, Black male high school students in Peel region reported a culture of low expectations from teachers, including differential treatment and disbelief from teachers when they performed well academically (Bailey et al., 2016). In addition, these students reported ostracization from their peers and instances of stereotyping (Bailey et al., 2016). These findings echo Dei, Mazzuca, and MacIssac’s (1997) earlier ethnography, which captured similar experiences in Toronto and more recent media reports point to direct and indirect exclusionary and marginalizing practices being an ongoing issue (Ahma, 2018; Ferguson, 2018; Moye, 2018; Murray, 2018). It is important to note that these perceptions of school climate in this population are often not found through explicit studies on school climate and are often not clearly named but are instead reflected and inferred through studies and reports that explore the broader experiences and outcomes of Black students in the GTA.

Other racialized groups also experience the schooling environment in different ways. For example, East Asian students are often constructed as model minorities. The model minority stereotype constructs East Asians as “having overcome all barriers of racial discrimination and [thus], as more successful even than Whites socioeconomically” (Suzuki, 2002, p. 23). The model minority stereotype also ignores the diversities, complexities, and nuances of the East Asian diasporic experience in both the American and Canadian contexts. Li (2005) found that this stereotype falsely conflates all East Asian students and their experiences, while ignoring those that are not high performers, and thus, making the specific needs of diverse groups of Asian students invisible to educators and policy makers. This invisibility in turn, disempowers many East Asian students and parents from advocacy when they experience marginalization and racism in educational settings (Li, 2005). Wing (2007) found that East Asian students are often stereotyped as all high achievers that naturally excel in math and come from highly ambitious families, which also often assumes that racial discrimination is not an issue.

Like their East Asian counterparts, South Asian students also tend to be essentialized, ignoring cultural, ethnic, and religious differences among the group (Crozier & Davies, 2008). While perceived as self-segregating by their teachers, a British study indicated that South Asian students actually often felt marginalized, invisible, and experienced ethnocentrism and cultural insensitivity, pushing them to the margins as a collective group (Crozier & Davies, 2008). Research also indicates that South Asian students are included in the model minority stereotype as high achievers, but also contended with ethnocentrism, covert and overt racism, hypervisibility and invisibility, silencing, and
exclusion in both faculty and peer group interactions in the Canadian university context (Samuel, 2004; Samuel & Burney, 2003).

Summary

A review of the literature reflects that school climate can be hard to define and measure as it often reflects complex, interdependent, and dynamic social phenomena, including different experiences and responses to schooling environments among racial and ethnic groups. However, many scholars can agree that school climate and its various components shape academic experiences and achievement. At the very least, school climate is comprised of the ways in which schooling is experienced by students in ways that make them feel safe, included, and respected and allow them to forge positive and supportive relationships with their peers and teaching staff. When positive, students tend to be more motivated and academically achieve. When negative, students tend to academically underachieve.

Rationale and Methodology

While there are a number of studies that explore racialized student’s educational experiences, explicit research on racialized students and school climate is lacking in Canada. With school climate taking up such a significant space in the education literature, it is clear that the conceptualization of school climate is at the forefront of student success. It is also evident from the discussion of the changed education policy landscape in Ontario that some efforts have been made to improve school climate and inclusion of equity-seeking groups, particularly Black students. With two cohorts of data to analyze—one that would have experienced the conditions up to 2006 (before policy changes) and one that experienced two successive policy changes by 2011—we have an opportunity to examine if there have been any gains in students’ perceptions of school climate.

Data

We employed two datasets (2006 and 2011) derived from Toronto District School Board Student Censuses; the 2006 Student Census (N=13,764) and the 2011 Student Census (N=14,968). Our samples were limited to age-appropriate grade 12 students who were age 17 at the time of the survey. We included this age restriction on our data so that our subsamples would be the most comparable and also because it is only children in grade 12 at the time of the 2011 census that would have experienced the policy changes that had occurred since 2006.

Students in both census years were asked to respond to the following statements under the general heading of “How do you feel about your school?”: 1) I enjoy school, 2) My school is a friendly and welcoming place, 3) I feel accepted by adults in my school, and 4) I feel accepted by students in my school. The possible response categories were: “All the time”, “Often”, “Sometimes”, “Rarely” and “Never”. Items were reverse-scored so that “Never” was associated with a value of 1 and “All the time” with a value of 5. Therefore, TDSB defines school climate as a combination of enjoying school, feeling that it is a friendly and welcoming space, and a space where the students feels accepted by both the adults and students in the school. This general definition is broadly consistent with the language and definitions found in our review of the literature.

Students were also asked to self-identify their race from the following several categories, which were each listed with country of origin examples. For instance, Middle Eastern – (e.g., Afghanistan, Iran, Lebanon, North Africa, and Other) or Asian – East (e.g., China, Japan, Korea)
following categories were created with the following percentages by cohort (2006, 2011): White (33.7%, 28.4%), East Asian (21.6%, 5.6%), South Asian (19.9%, 20.5%), Black (10.5%, 11.9%), Middle Eastern (4.8%, 5.6%), Mixed (4.7%, 6.1%), Southeast Asian (2.8%, 4.8%), and Latin American\(^3\) (2.0%, 2.1%). The category of Aboriginal was originally in the choices students had, but there were not sufficient cases to be analyzed here, so they were not included in the analysis.

**Results**

In our analyses, we examine the overall mean differences between the “belonging” items between all students in 2006 versus 2011. We then breakdown the analysis to examine if there are any observed differences by self-identified race. Table 1 displays the mean differences between the overall scores from the identical items in 2006 and 2011. In all cases, the mean value is higher in 2011 compared to 2006. Using two-sample t-tests, we test whether the mean differences in 2006 and 2011 are significantly different from one another. We find that they are significantly higher in 2011 in all cases except for the item concerning students being accepted by other students, where there was no change.

**Table 1**

**Median Scores Belonging between 2006 and 2011**

<table>
<thead>
<tr>
<th></th>
<th>2006 (N=13,370)</th>
<th>2011 (N=14,762)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoy School</td>
<td>3.442</td>
<td>3.545</td>
<td>( t = -9.199 )</td>
</tr>
<tr>
<td>Friendly</td>
<td>3.616</td>
<td>3.775</td>
<td>( t = -13.180 )</td>
</tr>
<tr>
<td>Accepted by Students</td>
<td>4.022</td>
<td>4.032</td>
<td>( t = -0.066 )</td>
</tr>
<tr>
<td>Accepted by Adults</td>
<td>3.916</td>
<td>4.012</td>
<td>( z = -8.282 )</td>
</tr>
</tbody>
</table>

The next step in our analysis was to examine if these items were different between the two years for the different self-identified racial categories. In Figure 1, the differences between the two years are displayed by the self-identified racial categories. If the bar goes to the right, the difference was positive, meaning that there was an overall increase between the two census years on how this racial sub-group reported perceiving aspects of their schooling experiences. If the bar goes to the left, this reflects a general worsening of their perceptions on these matters between the two years.

\(^3\) We use the identifier Latin American as presented in the dataset, understanding that this a contested term (see Garcia, 2017; Medina, 2019; Salinas & Lozano, 2021), which is often used to describe “a cultural, historical, ethnic, and economic [heterogeneous] group” from Central and South America and parts of the Caribbean (Jaimes, 2008, pp. 158-59).
In the vast majority of cases, the direction of the bars is in the positive direction, indicating an improvement in overall feelings of belonging. However, the bars that point to the left warrant careful consideration. Between 2006 and 2011, Mixed, Middle Eastern, Latin American, and Black students have reported a decrease in overall feelings of being accepted by students. Latin American students also report a decreased overall feeling over being accepted by adults between these two years. While Latin American students have reported an increase in enjoying school between these two years, the smallest gains for school enjoyment are found for Black and Middle Eastern students.

Our results thus far, however, are merely descriptive. Although they demonstrate how students’ perceptions can change by aggregated racial groups, a multivariate model is preferred for its ability to control for the effects of other characteristics so that we do not overstate the changes in perceived school climate between the two cohort years.

In Table 2, results from four ordered logistic regressions are presented. Ordered logistic regressions are an appropriate multivariate approach given that the dependent variables are ordinal in nature. Pooling both census years together, we regress the four items on the cohort (2011 versus 2006), self-identified race, and sex. The results are presented as odds ratios, with values over 1 meaning that there is an increased likelihood of that characteristic contributing to being in the higher category of the Likert item under consideration. For instance, students in 2011 were more likely to report higher levels of agreement with all four statements. In the case of enjoying school, students in 2011 (relative to students in 2006) were 24% more likely to report being in a higher category of school enjoyment. As revealed in Table 2, there among all items, students in 2011 generally reported higher levels of agreement than in 2006.
Table 2

Ordered Logistic Regression of Belonging Measures on Year, Race, and Sex (N=28, 101) Odds Ratios

<table>
<thead>
<tr>
<th></th>
<th>Enjoy School</th>
<th>School Friendly</th>
<th>Accepted by Students</th>
<th>Accepted by Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 Students (ref=2006)</td>
<td>1.237***</td>
<td>1.390***</td>
<td>1.109***</td>
<td>1.168***</td>
</tr>
<tr>
<td>Black</td>
<td>0.790***</td>
<td>0.622***</td>
<td>0.977</td>
<td>0.619***</td>
</tr>
<tr>
<td>East Asian</td>
<td>1.172***</td>
<td>1.037</td>
<td>0.791***</td>
<td>0.739***</td>
</tr>
<tr>
<td>Latin American</td>
<td>0.773**</td>
<td>0.628***</td>
<td>0.900</td>
<td>0.782**</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>1.307***</td>
<td>0.977</td>
<td>1.184*</td>
<td>0.973</td>
</tr>
<tr>
<td>Mixed</td>
<td>0.875**</td>
<td>0.792***</td>
<td>0.903</td>
<td>0.790***</td>
</tr>
<tr>
<td>South Asian</td>
<td>1.526***</td>
<td>1.138***</td>
<td>1.342***</td>
<td>1.209***</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>1.050</td>
<td>0.821***</td>
<td>0.813***</td>
<td>0.830**</td>
</tr>
<tr>
<td>Female</td>
<td>1.036</td>
<td>0.977</td>
<td>0.843***</td>
<td>1.115***</td>
</tr>
</tbody>
</table>

Log Likelihood -37630.9  -38615.2  -34587.6  -35956.3

However, in this multivariate model we can also examine how self-identified race and sex factor into these reports. It is important to note that the odds ratios associated with each item are necessarily averaged across both 2006 and 2011. In general, Black students were 21% less likely (1-0.790) to report enjoying school relative to White students. In fact, Black students were also less likely than White students to indicate that their schools were friendly and that they were accepted by adults. Latin American and Mixed students also consistently reported worse perceptions of belonging across these items, relative to White students. East Asian, South Asian, and Middle Eastern students reported higher levels of school enjoyment relative to their White counterparts, while South Asians were significantly higher than White students on all items examined here. In the case of sex, females in general reported lower likelihoods of being accepted by students but were more likely than boys to have reported being accepted by adults.

From Table 2 we can surmise that in general, a mean increase in these belonging measures occurred between the two years, but in general, there are racial disparities in these students’ experiences. This begs the question of where there has been any statistically significant change in these perceptions by self-identified race by between the two groups if we account for sex. We showed in Figure 1 that it appeared that there were racial differences, but these are bivariate models that do not allow us to control for the effects of other factors, namely sex, which may result in us overstating the effect of both race and changes that may (or may not) have occurred between 2006 and 2011.

In Table 3, we introduce interaction terms between self-identified race and the year of the survey. This allows us to examine if the effect of the year of the survey differentially impacted how members of self-identified racial categories responded to the belonging items. Interaction terms are also known as multiplicative terms or moderators. Their introduction to a multivariate estimation changes the meanings of the main effects of the variables, i.e. the odds ratio for 2011 Census and the individual self-identified race variables is no longer interpretable in the conventional way. The effect of a significant interaction term means that the effect of year of census on the outcome variable is different for a particular self-identified race group, compared to Whites. This effect is calculated by adding up the main effects of both of the composite variables along with the interaction. Because this is far from intuitive, it is most helpful to present such findings as figures.
Table 3

Ordered Logistic Regression of Belonging Measures on Year, Race, and Sex and Interaction Terms (N=28,101)

<table>
<thead>
<tr>
<th></th>
<th>Enjoy School</th>
<th>School Friendly</th>
<th>Accepted by Students</th>
<th>Accepted by Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 Census (Ref=2006 census)</td>
<td>1.268**</td>
<td>1.284***</td>
<td>1.083’</td>
<td>1.167***</td>
</tr>
<tr>
<td>Black</td>
<td>0.696***</td>
<td>0.611***</td>
<td>0.942</td>
<td>0.605***</td>
</tr>
<tr>
<td>East Asian</td>
<td>1.142”</td>
<td>1.051</td>
<td>0.814***</td>
<td>0.746***</td>
</tr>
<tr>
<td>Latin American</td>
<td>0.815</td>
<td>0.668***</td>
<td>0.800’</td>
<td>0.658***</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>1.149</td>
<td>0.904</td>
<td>1.149</td>
<td>0.905</td>
</tr>
<tr>
<td>Mixed</td>
<td>0.827”</td>
<td>0.774***</td>
<td>0.882</td>
<td>0.797***</td>
</tr>
<tr>
<td>South Asian</td>
<td>1.385***</td>
<td>1.121”</td>
<td>1.402***</td>
<td>1.172***</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>0.994</td>
<td>0.880</td>
<td>0.863’</td>
<td>0.822**</td>
</tr>
<tr>
<td>2006 X Black</td>
<td>1.303***</td>
<td>1.041</td>
<td>1.088</td>
<td>1.046</td>
</tr>
<tr>
<td>2006 X East Asian</td>
<td>1.047</td>
<td>0.972</td>
<td>0.943</td>
<td>0.979</td>
</tr>
<tr>
<td>2006 X Latin American</td>
<td>0.877</td>
<td>0.875</td>
<td>1.294</td>
<td>1.471’</td>
</tr>
<tr>
<td>2006 X Middle Eastern</td>
<td>1.316”</td>
<td>1.193+</td>
<td>1.075</td>
<td>1.178</td>
</tr>
<tr>
<td>2006 X Mixed</td>
<td>1.116</td>
<td>1.054</td>
<td>1.063</td>
<td>0.972</td>
</tr>
<tr>
<td>2006 X South Asian</td>
<td>1.215”</td>
<td>1.032</td>
<td>0.913</td>
<td>1.065</td>
</tr>
<tr>
<td>2006 X Southeast Asian</td>
<td>1.113</td>
<td>0.818+</td>
<td>0.848</td>
<td>1.012</td>
</tr>
<tr>
<td>Female</td>
<td>1.035</td>
<td>0.978</td>
<td>0.844***</td>
<td>1.114***</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-37619.3</td>
<td>-38611.0</td>
<td>-34581.9</td>
<td>-35951.5</td>
</tr>
</tbody>
</table>

We plot only statistically significant interaction results and due to the nature of the estimation procedure, our predicated probabilities are based on the probability of answering the category “often”, as it was the most frequently selected answer in all the items. Figure 2 displays how the difference between “often” enjoying school between 2006 and 2011 was not reported uniformly among subgroups; Black, Middle Eastern, and South Asian students all had differences between the two years that were not the same as the substantial increase found among White students. Despite increases in reported enjoyment of school across all groups, they were substantially smaller among Black, Middle Eastern, and South Asian students, compared to White student populations.

Figure 2

Predicted Probability of Select Groups Answering that they “Often” Enjoy School
Figure 3 displays the statistically significant interactions for the “friendly” dependent variable. It should be noted that all of these interactions were significant only at the $p<0.10$, so they must be interpreted with caution. In these findings, Middle Eastern and Southeast Asian students were found to have had different 2006 to 2011 changes in their overall perception of how friendly their schools were compared to White students. The difference between 2006 and 2011 was smaller for Middle Eastern students compared to White students, however, for Southeast Asian students, there was a significant jump in the reported perception of “friendliness” between the two census years.

**Figure 3**

*Predicted Probability of Select Groups Answering that they “Often” Find School to be a Friendly Place*

![Graph showing predicted probability of answering “often” for Middle Eastern, Southeast Asian, and White students.]

Figure 4 reveals that Latin American students differed in their changing perception of being accepted by adults in their school compared to White students. It should be noted that the scale on this graph is different from the previous two because the changes in the values between the two years for all groups are less than 0.02 (very small). However, for Latin American students, there was an overall very small increase in their reporting of feeling “often” accepted by adults, while for White students there was a small drop of almost 0.10.

**Figure 4**

*Predicted Probability of Select Groups Answering that they “Often” Feel Accepted by Adults in their School*

![Graph showing predicted probability of answering “often” for Latin American and White students.]
Discussion

Overall, the results demonstrate racialized differences in sense of belonging, showing that the improvements were not experienced uniformly across different racial groups. Analyzing these results from a Critical Policy Analysis framework can help to explain these differences.

Critical Policy Analysis (CPA) asserts that policies are socially constructed products shaped by structural inequities and shifting power dynamics (Diem et al., 2014; Fernández et al., 2018). To assume that education policies are neutral only perpetuates systems of inequalities rather than acknowledging that schooling involves transmitting a selection of values and morality on students (Prunty, 1985). By using CPA as a theoretical framework for education policies, the “central aim is to illuminate the ways that structures (such as education) perpetuate inequities in society” (Fernández et al., 2018, p. 401).

It is difficult to pinpoint if any of the policies in particular have been the cause of the increase in an overall sense of belonging and school climate. There are also limitations in the scope of the data since it is exclusively examining one school board within Toronto and the policies mandated from the Ministry of Education of Ontario are province wide and broad in scope and thus, not targeted to any one student group or demographic. Given the limitations of the data from these findings, there are nevertheless some important findings to note.

The finding that merits the most attention in terms of racial disparities is within the variable of feeling accepted by students. Self-identified Mixed, Middle Eastern, Latin American, and Black students self-reported a decrease in their ranking when asked if they feel accepted by students in their school between 2006 and 2011. A similar finding was found between 2006 and 2011 when students in these groups were asked if they enjoy school. Latin American students reported higher on this variable than White students, as did East Asian, South Asian, and Middle Eastern students, while the smallest gains were found in Black and Middle Eastern students. These findings show that education policies aimed at revising discriminatory practices or at improving equity and diversity were evidently not enough to mitigate the students most negatively impacted by a sense of belonging.

Understanding the Safe Schools Act through CPA for example, would mean to go beyond its original intention and to acknowledge its social consequences on students. Although the negative impact on students and their families were perhaps unforeseeable and are a product of unintended consequences of the policy, it is clear that even with revisions made to this act, it has not been sufficiently adequate to the very communities that were disproportionately affected most, namely Black students in Ontario, which consistently reported in these findings either a decrease in results or some of the smallest gains within the demographics. The scholarly literature indicates that there is a history of Black students, parents, and other stakeholders reporting educational marginalization and inequitable schooling environments. Therefore, despite the modifications of the Safe Schools Act and the introduction of Ontario’s Equity and Inclusive Education Strategy, these policy changes have not been enough to sufficiently address the long-standing and structural educational challenges faced by this group, especially given the fact that the Equity and Inclusion Strategy was broad in scope and did not specifically target particular groups.

Another important finding is the variable on school friendliness. When students were asked if “My school is a friendly and welcoming place”, Self-identified Southeast Asian students reported a significantly higher perception of friendliness in comparison to White students. South Asian students also reported high perceptions of acceptance by adults and enjoying school. These findings may be explained in part by some of the literature on South Asian students in Canada and Britain, which observed that these students respond to social boundaries and differential treatment in
educational spaces with a tendency to congregate among culturally similar peers (Crozier & Davies, 2008; Frances et al., 2000; Samuel, 2004). While model minority stereotypes assume that students from various Asian diasporic groups are academically inclined and garner high expectations from teachers, these stereotypes also obscure how these groups experience and respond to their racialization in ways that go beyond perceptions of their academic ability. As such, the relationships of these students to their schooling, may be more nuanced than has been shown here and discussed in the literature thus far. In addition, there is a dearth of knowledge in the Canadian scholarship as it pertains to the specific experiences of South and East Asian students, which could be explained by the ways in which model minority stereotypes construct these groups as high-achieving, highly ambitious and therefore, devoid of racial or academic challenges.

Lastly, there was an overall increase when students were asked if they feel accepted by adults in their school between 2006 and 2011. Female students were also more likely than males to report being accepted by adults, however self-identified Latin American students reported a decrease in this variable. Like South and East Asian students, there is also a dearth of literature in the Canadian scholarship regarding the specific experiences of Latin American students. However, we posit that these findings may be in part explained by the relationship of this demographic with officials. In 2006, two separate cases of immigration officials pulling children out of school in order to find their undocumented parents made headlines. Both cases were Latin American students. A year after, however, the TDSB adopted the No-one-is-Illegal campaign “Don’t Ask Don’t Tell”, in an effort to respond to these incidents (CBC News, 2007).

Overall, the “Ontario’s Equity and Inclusive Education Strategy” report and its initiatives released in 2009 may have contributed in some way to the overall improvement in student sense of belonging and school climate and if these policy changes did incite some improvement, these improvements were unequally distributed. What can be observed from these findings is that when there is a consensus of a policy disproportionately targeting particular student populations, like Black students and the Safe Schools Act, it is not enough to revise existing policies. Moreover, the Equity and Inclusion Strategy’s broad focus on such an array of sites of marginalization, which are often overlapping and interlocking, may result in the uneven results in racialized groups that we see here. Therefore, new strategies and policies that are targeted and created in concert with the community members that are most negatively impacted can be a way to compensate for these disparities—with adequate funding, resources, supporting staff, and specific strategies with timeline mandates and measures to be met at a provincial, board, and individual school levels.

Conclusion

In line with the existing scholarly literature, sense of belonging in the TDSB student was constructed around student perceptions of school being a place where they felt accepted by peers and adults, as well as being something they enjoyed and perceived as friendly. However, between 2006 and 2011, we found racialized differences among perceptions of sense of belonging in schooling in the TDSB. The increases and decreases shown between 2006 and 2011 cannot be fully explained by policy mandates during that time period and may reflect broader articulations of existing racial differences in schooling experiences for various marginalized groups. Further qualitative study is recommended to elucidate the specific ways in which under-researched racialized

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4 This is also true for Middle Eastern students. A broader lack of disaggregated race-based data collection and qualitative scholarly research in the Canadian context that captures the educational experiences of various ethno-racial groups persists and presents limitations in data interpretation and contextualization.
groups like South, Southeast and East Asians in addition to Black and Latin American groups, experience their schooling.

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