Racial and ethnic disparities in youth perceptions of police in the community and school: considering the effects of multilevel factors

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Abstract

Purpose – Recent publicized incidents involving police and youth, particularly minorities, may undermine attitudes toward police. This research examines the effect of race/ethnicity on youth attitudes toward police in two contexts.

Design/methodology/approach – This study utilizes survey data from 17,000 youth in California aggregated with data on poverty and crime. Hierarchical linear modeling (HLM) is used to examine the effects of individual and structural factors on perceptions of the police in the community and in school.

Findings – Race/ethnicity is related to perceptions of police in both contexts even after accounting for structural factors, with Blacks and Hispanics having less positive perceptions than Whites and Asians. Differences in perceptions between racial/ethnic groups were larger for police in the community than school police. Structural factors were associated with perceptions of police in the community but not at school.

Originality/value – This study differs from much of the previous literature examining race and attitudes toward police, which has largely focused on adults. The current study examines youth attitudes toward the police in two separate contexts and considers the influence of structural factors.

Keywords Attitudes, Race, Youth, Law enforcement

Paper type Research paper

Introduction

In response to ongoing public concern about violence on K–12 school campuses, many schools around the United States are partnering with local law enforcement to increase the presence of officers in schools. However, a police presence, whether at school or in the community, may not make all young people feel safe. Recent publicized incidents in the media of police appearing to use excessive force in response to student misbehavior (e.g. Lockhart, 2019; O’Connor, 2019) serves to undermine both the public’s and young people’s confidence in their abilities and may promote more negative attitudes toward police. Public confidence in the police impacts the ability of the police to respond to crime. When people have trust and confidence in the authority of police to maintain order and resolve conflicts, they are more likely to cooperate with police and obey the law. Conversely, people who distrust the police are unlikely to report crimes or cooperate with police officers to address their own issues and concerns (Bridenball and Jesilow, 2008; Brown and Benedict, 2005). Mistrust and dissatisfaction may lower youths’ willingness to cooperate with the police and therefore lower police effectiveness.

Research on perceptions of crime and justice indicates that racial/ethnic minorities, particularly Blacks and Hispanics, tend to have more negative perceptions of the police and the criminal justice system than Whites (Schuck et al., 2008). The negative perceptions of police held by racial/ethnic minorities have a host of negative ramifications, including limiting the ability of the police to control crime (Brown and Benedict, 2005). However, there...
has been very limited research examining the effect of race/ethnicity specifically on youths' perceptions of school police. Furthermore, though past research has considered the effects of both individual (e.g. social bonds; Wu et al., 2015) and structural factors (e.g. violent crime, economic disadvantage; Sampson and Bartusch, 1998) in explaining the negative perceptions of police held by racial/ethnic minorities, it is unknown what impact structural factors have on explaining attitudes toward the police specifically among youth.

This study uses data from the California Healthy Kids Survey to examine how youth in high schools from different racial/ethnic groups feel about the police in their community and police in their school. Examining perceptions of police in their community and school with the same sample of individuals will allow for a more nuanced understanding of how youth view both groups of law enforcement. This study further examines whether the differences between racial/ethnic groups on the perceptions of police exist when accounting for violent crime rates and economic disadvantage which are known to influence perceptions of police. The current study has the potential to increase understanding of racial/ethnic differences in youth perceptions of police in their schools and communities.

**Literature review**

*Factors influencing public attitudes toward the police*

Attitudes toward the police are influenced by a variety of factors, both at the individual and societal levels. Individual-level variables that have been most frequently studied in the literature on attitudes toward police are demographic characteristics—specifically age, race, socioeconomic status (SES) and gender (Bridenball and Jesilow, 2008; Decker, 1981; Hurst and Frank, 2000; Webb and Marshall, 1995). A general finding is that attitudes toward the police vary by age, with younger people having less favorable attitudes toward the police than older people. Blacks are more likely than Whites to express dissatisfaction with various aspects of policing (Webb and Marshall, 1995). Indicators of SES, such as education and income are positively correlated with attitudes toward the police, although some research suggests that SES is related to neighborhood culture, which may be more important in explaining attitudes toward the police (Dunham and Alpert, as cited in Webb and Marshall, 1995). There is less support for gender as a predictor of attitudes toward police, although much of the literature suggests that males hold the police in lower regard than females (Stewart et al., 2014).

Non-demographic factors including contextual and ecological variables are also important in shaping attitudes toward the police. These include both micro-level influences and macro-level characteristics such as face-to-face interactions with the police, exposure to media reports on police abuse, concentrated disadvantage and neighborhood crime, which have been found to be associated with attitudes toward the police and perceptions of police misconduct (Reisig and Parks, 2000; Rosenbaum et al., 2005; Sampson and Bartusch, 1998; Weitzer and Tuch, 2004). For instance, citizens living in low-crime neighborhoods are more likely to have positive attitudes toward the police than those who reside in high-crime neighborhoods after controlling for race (Sampson and Bartusch, 1998; Webb and Marshall, 1995) and residents of neighborhoods characterized by concentrated disadvantage are less satisfied with the police (Reisig and Parks, 2000). Perceived quality of treatment by the police is an important determinant of satisfaction with police and affects citizen perceptions (Rosenbaum et al., 2005). People are more likely to hold negative attitudes and be dissatisfied with the police when they encounter officers who they perceive to be unprofessional, unfair and/or disrespectful than when they feel they were treated fairly and respectfully (Weitzer and Tuch, 2004). The use of excessive force negatively affects a citizen's perception of the police, with racial/ethnic minorities being more likely to have their perceptions affected than Whites (Rosenbaum et al., 2005). Media coverage of police misconduct has also been known to influence attitudes toward police (Weitzer and Tuch, 2004).
Research on race and attitudes toward the police

In general, research on perceptions of crime and justice indicates that non-White groups, particularly Blacks and Hispanics tend to have more negative perceptions of the police and the criminal justice system than Whites and Asian Americans (Schuck et al., 2008; Webb and Marshall, 1995; Weitzer and Tuch, 2006). In comparison to Blacks, Whites are more likely to perceive that they are treated fairly by the police and be satisfied with police services in their neighborhood (Gabbidon and Higgins, 2009; Schaefer et al., 2003). A meta review of 92 studies conducted by Peck (2015) examined the perceptions and attitudes of the police across various racial and ethnic groups to determine if minorities perceive the police differently compared to Whites. The findings indicated that individuals who identified as Black, non-White were more likely to hold negative perceptions and attitudes toward the police compared to Whites, regardless of the operationalization of the personal attitudes and dependent variables about the police, which included confidence, performance and experiences/encounters with law enforcement. Moreover, studies have found that Hispanics have more positive views of police than Blacks but still view the police less favorably than Whites (Rosenbaum et al., 2005; Fine et al., 2020). Research on perceptions of police among racial/ethnic groups other than Whites, Blacks and Hispanics has produced mixed results. These studies examining other racial/ethnic groups have found evidence of both positive and negative effects of race/ethnicity on attitudes for Native Americans, Asians and Asian subgroups and “Other” minorities (Peck, 2015).

Some research has found no differences in attitudes toward police between racial/ethnic groups once controlling for structural factors. For instance, Sampson and Bartusch (1998) examined differences in attitudes and behaviors toward the law and criminal justice system using data from 8,782 residents from 343 neighborhoods in Chicago. They found that differences between Blacks’ and Whites’ levels of legal cynicism and dissatisfaction with the police disappeared after controlling for neighborhood-level characteristics, including concentrated disadvantage, immigrant concentration and violent crime rate. These findings suggest that the economic disadvantage of neighborhoods, in particular, is important in explaining the development of attitudes toward the police.

Hagan et al. (2005) examined differences in attitudes toward police between Blacks, Hispanics, Asians and Whites using a sample of 9th and 10th grade public school students. Accounting for structural variation, they found that Blacks and Hispanics were more likely to have negative perceptions of the police while Whites held positive perceptions (Hagan et al., 2005). Additional studies have found that racial/ethnic differences diminish when perceptions of quality of life are considered and that Blacks in higher socioeconomic communities continue to show lower satisfaction with the police than White residents from the same communities (Wu et al., 2009).

Given that much of the research examining perceptions of police by race/ethnicity has focused on adult samples, there has been limited research focused on racial/ethnic differences in youth perceptions of the police, with findings from this area suggesting that overall attitudes of juveniles are less favorable than those reported for adults (Hurst and Frank, 2000). One factor is police have a high level of contact with persons under age 18. Juveniles also compose one of the largest groups that have encounters with the police and are subject to increased contact with officers through stops, frisks, arrests, surveillance and prohibitions (Hurst et al., 2000; Wu et al., 2015).

The limited number of studies in this area has produced contradictory results, with studies finding that racial/ethnic minorities view the police less favorably than Whites or that race/ethnicity has no impact on perceptions of the police. Wu et al. (2015) examined 1,300 students aged 13–18 in six US cities. Black and Hispanic respondents reported less positive views of the police than did White students, after controlling for demographic, experiential and location variables. Hispanic students had significantly more positive views of the police.
than Black students. Similar findings have been reported for samples of university students (Mbuba, 2010). Other research has suggested that race does not play a role in shaping adolescent perceptions of the police (Hurst et al., 2000).

Research on race and youth perceptions of school police
A growing body of research indicates that youth from minority groups are more likely to be exposed to school law enforcement through arrest, prosecution and violence. For instance, qualitative research has found that Black and Hispanic high school students frequently experienced harassment and discrimination from police in their neighborhood and at school (Rosenbloom and Way, 2004). Similarly, Ruck and Wortley (2002) found that students of color in Canada, particularly Blacks, are more likely than Whites to perceive discrimination by the police at school. Such incidents in schools involving the police have brought increased attention to the ways law enforcement presence in schools can negatively affect youth, particularly youth of color. While some previous studies have found racial and ethnic disparities in young people’s perceptions of police and of their own safety (Peck, 2015; Weixler et al., 2020), youths’ perceptions may be influenced by multiple contextual factors (Wu et al., 2009, 2015), and therefore they may differ by school and community.

Although there has been tremendous growth of police presence in schools in the past two decades, only one study in the US to date has examined the effect of race specifically on youths’ perceptions of police in their own schools. Brown and Benedict (2005) conducted a survey of a sample of predominately Hispanic high school students residing in a predominately Hispanic community in Brownsville, Texas. Race/ethnicity was not significantly correlated with any measure of student perceptions of the school police and security officers, once controlling for individual-level correlates. A major limitation of the study is that it did not consider the influences of structural factors, such as economic disadvantage or violent crime rate, in explaining students’ attitudes toward the police. In addition, the study examined youth from a demographic population consisting of a majority of Hispanics, which limited racial/ethnic comparisons.

While prior research has thoroughly examined how race/ethnicity influences adult attitudes toward the police, considerably less research has focused on the influence of race in explaining youths’ perceptions of police in their communities and at school. However, as more law enforcement officers are being assigned to schools, there is a need to understand how perceptions are formed and what impact everyday exposure of youth to law enforcement at school has on their attitudes toward police. Research conducted in the United Kingdom suggests that school police officers were viewed more favorably than the police in general, although students attending schools in which school police officers had been assigned developed more negative views toward the police than students attending schools where school police were not present (Hopkins, 1994; Hopkins et al., 1992). However, further research is needed that examines specifically what role race/ethnicity plays in shaping attitudes toward police in general and in school. An understanding of how youth of different racial/ethnic groups view the police both in their community and at school can be used to inform law enforcement and school officials about developing effective means for enhancing positive perceptions of police among youth.

The current study
The current study seeks to answer three questions. First, how do youth from different racial/ethnic groups feel about police in their community and police in their school? Second, are the rates of economic disadvantage at the school and violent crime in the community predictive of youth perceptions of police in their community and school? Third, are there differences
between racial/ethnic groups in perceptions of police when accounting for rates of economic
disadvantage at school and violent crime in the community?

Method
Data and sample
The study uses data from over 17,000 youth in high school who completed the California
Healthy Kids Survey (CHKS) in 2017–18. The survey provides information on the nature of
youth behaviors, attitudes and learning conditions to guide school improvement efforts and
develop effective prevention, health and youth development programs. The survey was
designed to be administered at least once every two years to youth in Grades 5, 7, 9 and 11
attending California public schools (although some schools may administer it to other
grades). Participation in the survey is voluntary, anonymous and confidential (WestEd,
2019). This sample focuses specifically on youth in 67 high schools in eight districts located in
thirteen cities. The sample included both small and large school districts, with schools located
in urban, suburban and rural locations and youth who were primarily in Grades 9 and 11. The
response rates were 77.7% among 9th graders and 72.5% among 11th graders in the
participating schools, but lower among students in other grades where the CHKS is not
typically administered. The districts included in the sample are part of an initiative funded by
The California Endowment (TCE) and are located in communities across the state that have
been negatively impacted by health inequities (e.g. lack of access to health care coverage,
health gaps for young men of color, etc.). The sites were chosen for TCE’s initiative are based
on criteria grounded in social determinants of health data, grant-making history and key
stakeholder interviews (TCE, 2020). The communities that administered the survey during
this period were located largely in the northern part of California. Despite this, these
communities represent diversity across race, geographic location and political orientation.

Data on structural factors included violent crime data for 2018 (California Department of
Justice, n.d.), population data by city in 2018 (California Department of Finance, n.d.) and data
on free and reduced-price lunch for the 2017–2018 school year (California Department of
Education, n.d.).

Variables
Dependent variables: The two dependent variables used in this study are composite variables
that measure perceptions of police in a youth’s community and the perception of police in a
youth’s school. Perceptions of the police in the community are a seven-item index that
measures the extent to which youth have positive attitudes toward the police in their
community. The seven positively worded statements in the scale are: (1) “I trust the police.”;
(2) “I respect the police.”; (3) “The police make me feel safer.”; (4) “The police treat all people in
the community fairly.”; (5) “The police are respectful of all people in the community.”; (6) “The
police are helping to reduce crime and improve safety.” and (7) “Police officers treat people in
my community with respect regardless of race, ethnicity, or perceived immigration status.”
The items were measured on a 1 (not at all true) to 4 (very much true) scale. Perceptions of the
police in school are a nine-item index that measures the extent to which youth have positive
perceptions of police in their school. The nine positively worded statements in the scale are: (1)
“I like having an officer at school.”; (2) “I feel safer with the officer at school.”; (3) “The officer is
helpful to students needing help.”; (4) “The officer has a good relationship with students.”; (5)
“The officer treats all students fairly.”; (6) “The officer treats all students with respect
regardless of race, ethnicity, or perceived immigration status.”; (7) “The officer does a good
job stopping violence at school.”; (8) “I respect the officer in my school.” and (9) “I feel
comfortable with the officer in my school.” Each of the items was also measured on a scale
from 1 (not at all true) to 4 (very much true). Two composite scale variables were created by adding the scores (range: 1–4) for each of the items comprising the scales and then dividing the sum of the scores by the number of items in the scale to obtain an average (mean) score for youth who completed six or more items on the police in the community scale and seven or more items on the police in their school scale. This resulted in two continuous, composite outcomes with values ranging from 0 to 4. The reliability of both scales was high (Cronbach’s alphas > 0.95).

**Individual-level variables:** The independent variable, race/ethnicity, is a categorical variable with four groups: (1) White Non-Hispanic (13.2%), (2) Black Non-Hispanic (5.6%), (3) Hispanic (69.9%) and (4) Asian (11.3%). The race/ethnicity variable was based on two items on the CHKS: (1) “Are you of Hispanic or Latino origin?” and (2) “What is your race?” All youth who responded “yes” to the first question, regardless of their response to the second question were categorized as Hispanic. Youth who responded “no” to the first question and selected “Black or African American,” “White” or “Asian” for their race were placed into the three corresponding racial/ethnic groups. A total of 2,363 youth who responded “no” to the first question and reported their race as “American Indian or Alaska Native,” “Native Hawaiian or Pacific Islander” and “Mixed (two or more) races” were excluded from the study, due to the low percentages of youth in these categories and because of the various races that could be included in the “mixed” category. From the race/ethnicity variable, a series of dummy-coded variables were created for the racial/ethnic categories. The individual-level controls are sex and grade level. Gender is operationalized as male (47.7%), female (51.3%), or transgender/non-binary/questioning/other (1%). Grade level has five possible response options: 9th (46.2%), 10th (5.8%), 11th (38.5%), 12th (5.1%) and non-traditional (NT; 4.5%). Dummy-coded variables were also created for the gender and grade level variables.

**Macro-level variables:** Economic disadvantage is a school-level variable that is operationalized as the percentage of youth at the school who are eligible for free and reduced-price lunch in 2017–18. For the 67 schools included in the analysis, the free and reduced-lunch rate ranged from 16.0% to 94.5% with a mean of 68.3% (SD = 50.2). Violent crime rate is a city-level control variable operationalized as the number of violent crimes in the city per 1,000 residents. This is calculated by dividing the number of violent crimes by the population and multiplying the result by 1,000. For the 13 cities included in the analysis, the violent crime rate ranged from 1.2 to 9.5 with a mean of 4.8 (SD = 2.3).

**Analytic strategy**
We utilized hierarchical linear modeling (HLM; Raudenbush and Bryk, 2002) to address the research questions using Stata/MP 16.0’s (StataCorp, 2019) xtmixed command. The HLM models appropriately accounted for the clustering of individuals (i.e. level 1) within schools (i.e. level 2) and cities. The models specified the intercepts as random effects and the predictors as fixed effects only. We used a listwise deletion procedure, which excluded 4,775 individuals for the models for police in the community and 6,622 individuals for the models for police in the school who did not complete the required survey items (i.e. the dependent variables, gender and grade level) and youth who were not in one of the four racial/ethnic groups under study. This resulted in a final sample of 18,991 individuals used in the models for police in the community and 17,144 individuals for the models for police in the school. We used a stepwise procedure and conducted four models for each of the two outcome variables. Model 1 included only the individual-level variables and allowed for the examination of the differences between the racial/ethnic groups after accounting for gender and grade level. Model 2 added economic disadvantage at the school as a level-2 predictor and Model 3 added violent crime in the community as a level-3 predictor. Finally, Model 4 included both the economic disadvantage at the school and violent crime in the community as predictors.
All predictors except the dummy-coded race/ethnicity variables were grand mean centered based on the analytic sample. Grand mean centering allows variables to be rescaled so that the intercept represents a meaningful value (Robson and Pevalin, 2016). For this study, all variables except race/ethnicity variables are grand mean centered so that the intercept in the model represents the mean score for the Black group for a hypothetical individual who is at the mean on the other control variables.

Results
Descriptive results
Table 1 presents the numerical averages of individual responses to questions assessing perceptions of police in community and in their school. Across the seven statements about police, the average response by Black youth is nearly “a little true” (1.99), while the average response for White youth is slightly lower than “pretty much true” (2.96). Latino and Asian youths’ average reported perceptions of police in their community fall between those of the sample’s Black and White youth.

At 2.41, the average response given by Black youth to the items assessing perception of police in school was between “a little true” and “pretty much true.” At 2.92, the average response for White youth was the most positive of the groups, approaching “pretty much true.” The difference between the average responses of the two groups is less than the difference for items about police in the community (Table 1).

Multilevel results
Table 2 presents the results of the HLM models predicting perception of the police in the community. The HLM estimate of the intraclass correlation (ICC) revealed that 8.4% of the variation in perception of police in the community is attributed to differences between schools and 1.3% of the variation is attributed to differences between cities, while the rest is attributed to differences between youth. Model 1 showed the effects of only the individual-level predictors of race/ethnicity, grade and gender on perception of police in the community. Consistent with the descriptive results, each of the dummy-coded race variables were found to be statistically significant with Whites having the greatest perceptions of police, followed by Asians, Hispanics and Blacks. Specifically, being White (versus Black) increased perception of the police by 0.81, being Asian increased it by 0.61 and being Hispanic increased it by 0.37. The difference between Blacks and Whites was equivalent to an effect size of 0.92, while the effect sizes indexing the differences between Blacks and Asians and Blacks and Hispanics were 0.75 and 0.42, respectively.

All grade variables in Model 1 were statistically significant predictors of perception of the police in the community. Compared to 9th graders, youth who identified as belonging to the

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Community M</th>
<th>Community SD</th>
<th>Community n</th>
<th>School M</th>
<th>School SD</th>
<th>School n</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>2.96</td>
<td>0.88</td>
<td>2,538</td>
<td>2.92</td>
<td>0.84</td>
<td>2,030</td>
</tr>
<tr>
<td>Black</td>
<td>1.99</td>
<td>0.87</td>
<td>1,033</td>
<td>2.41</td>
<td>0.88</td>
<td>914</td>
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<tr>
<td>Hispanic</td>
<td>2.45</td>
<td>0.88</td>
<td>13,193</td>
<td>2.67</td>
<td>0.85</td>
<td>11,890</td>
</tr>
<tr>
<td>Asian</td>
<td>2.68</td>
<td>0.79</td>
<td>2,227</td>
<td>2.82</td>
<td>0.76</td>
<td>2,037</td>
</tr>
</tbody>
</table>

Note(s): All items were rated using a Likert scale (1 = not at all true; 2 = a little true; 3 = pretty much true; 4 = very much true)
Table 2. Hierarchical linear models predicting perceptions of police in the community (N = 18,991)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>B</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>2.07</td>
<td>0.05</td>
<td>43.38**</td>
<td>2.07</td>
<td>0.05</td>
<td>42.38**</td>
<td>2.07</td>
<td>0.04</td>
<td>51.88**</td>
<td>2.06</td>
<td>0.05</td>
<td>41.38**</td>
</tr>
<tr>
<td>Model 2</td>
<td>0.81</td>
<td>0.03</td>
<td>24.45**</td>
<td>-0.10</td>
<td>0.03</td>
<td>-3.07**</td>
<td>-0.12</td>
<td>0.03</td>
<td>-3.88**</td>
<td>-0.11</td>
<td>0.03</td>
<td>-3.19**</td>
</tr>
<tr>
<td>Model 3</td>
<td>0.37</td>
<td>0.03</td>
<td>12.92**</td>
<td>0.08</td>
<td>0.05</td>
<td>6.29**</td>
<td>0.06</td>
<td>0.05</td>
<td>3.02**</td>
<td>0.04</td>
<td>0.02</td>
<td>1.35</td>
</tr>
<tr>
<td>Model 4</td>
<td>0.61</td>
<td>0.03</td>
<td>18.90**</td>
<td>-0.49</td>
<td>0.05</td>
<td>-9.77**</td>
<td>-0.51</td>
<td>0.05</td>
<td>-9.66**</td>
<td>-0.43</td>
<td>0.05</td>
<td>-9.06**</td>
</tr>
</tbody>
</table>

Note(s): All of the variables, with the exception of the race/ethnicity variables, were grand mean centered. aPercent free lunch was a proportion with values ranging from 0.160 to 0.945. bViolent crime rate was the number of violent crimes per 1,000 people and ranged from 1.2 to 9.5. *p < 0.01, **p < 0.001, ***p < 0.001. Grand mean centered.
non-traditional (NT) grade level had much lower perceptions of police in their community. Specifically, being in the NT grade decreased perception of the police in the community by 0.49 versus being in the 9th grade. Additionally, youth in grades 10, 11 and 12 all had significantly lower perceptions of police in their community than 9th graders. Being male (versus female) significantly increased perception of the police in community by 0.08 while being in the “other” category (versus female) significantly decreased positive perception of the police in the community by 0.30 (Table 2).

Model 2 introduces the school-level predictor, percent free lunch. This variable was found to be significantly associated with a decrease in the perception of the police. For each one percentage increase in students eligible for free lunch, perception of police decreased by 0.004 ($p < 0.001$), with no individual-level predictors changing significance. The addition of the city-level predictor, violent crime rate, in Model 3 was found to significantly decrease perception of police with no individual-level predictors changing significance. For every one additional violent crime rate and percent free lunch in Model 4, violent crime rate is reduced to non-significance and percent free lunch was the only macro-level variable that significantly predicted perception of police. For each one percentage increase in the percentage of students eligible for free lunch, perception of police decreased by 0.37 ($p < 0.001$). All individual-level predictors remained statistically significant across Models 1 to 4 and the magnitudes of the differences between Blacks and the other racial/ethnic groups were nearly identical across models.

Table 3 presents the results of the HLM models predicting perception of the police in school. The HLM estimate of the ICC revealed that 5.8% of the variation in perception of police in school is attributed to differences between schools and 0.1% of the variation is attributed to differences between cities, while the rest is attributed to differences between individuals. Model 1 indicates that all race/ethnicity and grade variables are statistically significant. However, the coefficients for the race/ethnicity variables predicting perception of police in school were smaller than those predicting perception of police in the community. Being White (versus Black) increased perception of the police by 0.43, being Asian increased it by 0.36 and being Hispanic increased it by 0.20. The effect size indexing the difference between Blacks and Whites was 0.50. Additionally, the effect sizes based on the differences between Blacks and Asians and Blacks and Hispanics were 0.45 and 0.23, respectively. In regard to the gender variables, male is not statistically significant in any of the four models, while being “other” is associated with a decrease in perception of school police by 0.26 (in all models). Model 2 adds only percent free lunch as a school-level predictor, which is not significant and does not change the significance of any individual-level variables. Model 3 adds only the violent crime rate variable, which is also not significant and does not change the significance of any of the individual-level predictors. With both percent free lunch and violent crime rate added in Model 4, neither is a significant predictor of perception of police in school. There were no changes in significance of any individual-level predictors when comparing across Models 1 to 4 and the magnitudes of the differences between Blacks and the other racial/ethnic groups were nearly identical across models (Table 3).

Discussion
Relying on data from over 17,000 youth in California, the purpose of the current study was to build on the limited amount of prior research on race/ethnicity and youths’ attitudes toward the police by examining the impact of macro-level factors such as economic disadvantage of a school and the local crime rate in addition to youth race/ethnicity and other demographic characteristics on perceptions of police, both in the community and at school. Several main findings emerged. At the individual-level, these results suggest that youth who identified
### Table 3.
Hierarchical linear models predicting perceptions of police in schools (N = 17,144)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>t</td>
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</tr>
<tr>
<td><strong>Constant</strong></td>
<td>2.46</td>
<td>0.04</td>
<td>58.25**</td>
<td>2.46</td>
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<tr>
<td><strong>Individual level</strong></td>
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</tr>
<tr>
<td>Race/ethnicity (reference = Black)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.43</td>
<td>0.03</td>
<td>12.52**</td>
<td>0.42</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.20</td>
<td>0.03</td>
<td>6.81**</td>
<td>0.20</td>
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<td>0.03</td>
<td>10.83**</td>
<td>0.36</td>
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<tr>
<td>10</td>
<td>-0.13</td>
<td>0.03</td>
<td>-3.92**</td>
<td>-0.13</td>
</tr>
<tr>
<td>11</td>
<td>-0.11</td>
<td>0.01</td>
<td>-7.77**</td>
<td>-0.11</td>
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<tr>
<td>12</td>
<td>-0.16</td>
<td>0.03</td>
<td>-4.52**</td>
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<td>0.06</td>
<td>-7.92**</td>
<td>-0.44</td>
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<tr>
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<td>0.01</td>
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<tr>
<td>Other</td>
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<td>0.07</td>
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<td>-0.26</td>
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<td><strong>School level</strong></td>
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<tr>
<td>Percent free luncha</td>
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<td>0.13</td>
<td>-0.66</td>
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<td><strong>City level</strong></td>
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<tr>
<td>Violent crime rateb</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.77</td>
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</table>

**Variance explained**
- Between individuals: 68%
- Between schools: 1%
- Between cities: 1%

**Note(s):** All of the variables, which the exception of the race/ethnicity variables, were grand mean centered. 
*Percent free lunch was a proportion with values ranging from 0.160 to 0.945. 
Violent crime rate was the number of violent crimes per 1,000 people and ranged from 1.2 to 9.5

*p < 0.01, **p < 0.001
themselves as Black were the least likely to hold positive perceptions toward the police, both in their community and at school. However, the disparities among the racial/ethnic groups in the perceptions of police at school were smaller than the disparities among these groups for the index of items assessing perceptions of the police in their community. These findings were consistent regardless of the addition of the macro-level factors of school disadvantage and crime rate of the school’s city. These results suggest that compared to police outside of school, police in school are conducting policing activities in a manner that is resulting in smaller racial/ethnic disparities in how youth view them. Students may be more likely to have positive encounters with school police that they do not have with municipal police. Future research might seek to examine what school police are doing that is resulting in a smaller disparity.

These results of individual-level effects mirror findings from the research on race and attitudes toward the police among the general population which indicates that Hispanics tended to have more positive views of the police compared to Blacks, but perceive police more negatively than Whites (Peck, 2015). However, they contrast with the findings from Brown and Benedict (2005) which reported that race/ethnicity and year in school has no impact on youths’ perceptions of the police at school. While that study was the first to show that race/ethnicity has no impact on perceptions of school police in a single school district in an impoverished area with a large racial/ethnic minority (i.e. Hispanic) population, the results here found that race/ethnicity was significantly related to perceptions of police in schools in multiple schools districts with large and diverse minority populations.

The study also found that macro-level factors—specifically school poverty and the local crime rate affects youths’ perceptions of police in their community but not at school. However, when considering both school poverty and city crime rate in the same model, the findings suggest that the percent of students at a school eligible for free or reduced-priced lunch—a measure of school-level poverty—is the only macro-level factor that has significant influences on student perceptions of police in the community. In contrast to the findings from Sampson and Bartusch (1998) which found that the effect of race/ethnicity was reduced to non-significance once neighborhood-level factors such as concentrated disadvantage and violent crime were controlled for, these results indicate that the views of youth toward the police cannot be explained away by the inclusion of macro-level factors such as school disadvantage and the rate of violent crime. This suggests that race/ethnicity is at least as important as school concentrated disadvantage in explaining attitudes of youth toward the police.

Several limitations of the study should be noted. First, although the use of a city-level crime variable provides additional context on how structural factors might influence perceptions of police, the number of cities included in the analysis was small, which limited the statistical power of the analyses that examined the association between the violent crime rate and the two outcomes. Second, external validity of the study results is unknown. Participation in the CHKS is voluntary rather than being due to random selection (WestEd, 2019). Only schools in districts participating in the TCE-funded initiative are included, which are in low-income communities and those communities that completed the surveys were largely from northern California. Moreover, although data were collected from public schools in multiple cities and school districts, findings cannot be generalized to youth who are not currently enrolled in school or who are enrolled in private, vocational, or alternative schools. Therefore, the generalizability of the results may be limited.

Another limitation is that individual-level variables included in the models are limited to the youths’ race/ethnicity, grade level and gender. However, there are other variables known to be correlated with perceptions of police. For instance, contact with the police at the individual level is a key factor in determining citizen perceptions of police, although this measure is not provided in the data (Weitzer and Tuch, 2006). Furthermore, the CHKS
includes other measures related to youths’ behaviors that would have reason to be correlated with perceptions of police, including membership in a gang and the number of times at school youth was a victim of a violent act. Some of these variables have been included in previous studies assessing attitudes toward police (Brown and Benedict, 2005; Wu et al., 2015). For example, youth self-reporting as gang members are more likely to feel disrespected by the police than non-gang members (Friedman et al., as cited in Wu et al., 2015). However, inclusion of the variable assessing gang membership would have reduced the analytic sample by nearly half, as several large school districts that participated in the TCE-funded initiative did not ask this question on their surveys. Furthermore, although items measuring the frequency of behavioral incidents youth experienced at school might be hypothesized to influence perceptions of school police, there is no evidence to suggest that problem incidents experienced at school would be correlated with perceptions of police outside of school. Therefore, these variables were not included in the models to keep the predictors in both sets of models consistent. The inclusion of such variables into the models predicting perception of school police were found to be statistically significant but did not reduce the effects of other variables to non-significance. Future research should attempt to use additional individual-level variables that are likely to be predictive of both attitudes toward police inside and outside of school.

Based on the finding that youth from schools that are more economically disadvantaged are less likely to have positive perceptions of the police, there should be continued efforts to end racial inequality and deliver equal and quality services to disadvantaged communities with high minority populations. Because this study found that racial/ethnic disparities in perceptions of police is greater in the community than in school, providing training to police that work outside of the school environment to learn from school-based police might help reduce racial disparities in attitudes toward police that do not work in school. The current results also have implications for action regarding police in schools. The Black Lives Matter movement has called to defund and remove police from schools. However, the current results do not allow us to conclude whether police should be removed from schools. At a minimum, school police must place greater emphasis on promoting procedural justice, which concerns fairness in the processes of resolving disputes. Police should be accountable not only to crime in the community or safety in school, but how fair and respectful they are viewed in that community or school. When people believe that authority figures are fair, respectful and willing to listen to other perspectives, they are more likely to comply with the law (Tyler, 2007). For instance, holding open forums or meetings between youth of different racial/ethnic groups and officers in the school could allow for a mutual airing and resolution of grievances. This would provide adolescents of different racial/ethnic groups with opportunities for favorable interactions with the police.

References


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Further reading


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