Are Charter Schools Safer in Deindustrialized Cities With High Rates of Crime? Testing Hypotheses in Detroit

Daniel Hamlin
University of Toronto

Families in deindustrialized cities with high crime rates report prioritizing school safety when opting for charter schools. Yet, very little research has investigated whether charter schools are safer than traditional public schools. This study compares charter and traditional public schools in Detroit, Michigan, on perceived school safety by linking student surveys to data on school, neighborhood, and parent-related characteristics. Charter schools exhibited higher perceived school safety than traditional public schools. However, controls for student commute distance and parental involvement largely diminished this difference. Neighborhood charter schools were an exception, maintaining higher perceived school safety net of controls. Overall results suggest that differences in perceived school safety between schools become less prominent after the attributes of school choosers are considered.

KEYWORDS: charter schools, education policy, school choice, school safety, urban schools

The provision of a safe learning environment is a fundamental condition for school success (Cornell & Mayer, 2010; Lacoe, 2015; Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006). In deindustrialized cities characterized by high rates of crime, concentrated poverty, and urban blight, students report persistent exposure to violence and criminal activity at school (Eaton et al., 2012; Kann et al., 2014). This lack of safety in school is disconcerting. Unsafe school environments tend to have deleterious effects on students' mental health, socio-emotional development, and academic performance (Ozer & Weinstein, 2004; Ripski & Gregory, 2009; Schreck & Miller, 2003; Woods, Done, & Kalsi, 2009). To address safety concerns, federal and state policies have envisioned school choice as
a mechanism for ensuring that students have an opportunity to attend a safe school (Astor, Guerra, & Van Acker, 2010; Lacoe, 2015; Michigan Department of Education, 2003; U.S. Department of Education, 2004). This rationale for school choice has contributed to advancing charter school reforms in many high-crime cities (Buckley & Schneider, 2009; Sebring et al., 2006). As charter schools have expanded, families in deindustrialized cities have routinely cited safety as one of the main reasons for seeking out a school of choice (Friedman, Bobrowski, & Geraci, 2006; Lake, Jochim, & DeArmond, 2015; Stewart & Wolf, 2012).

With school safety being a priority for charter schools in many deindustrialized cities, understanding whether charter schools enable safer learning environments than traditional public schools in these settings is crucial to evaluating charter school reforms. Nonetheless, studies comparing charter and traditional public schools have tended to focus on academic achievement (Betts & Tang, 2014; Center for Research on Education Outcomes, 2013; Lubienski & Lubienski, 2013; Xiang & Tarasawa, 2015) and competitive effects (Arsen & Ni, 2012; Bettinger, 2005; Bifulco & Ladd, 2006a; Jabbar, 2015; Ni, 2009), whereas research examining school safety is lacking. A small number of studies suggest that charter schools are safer than traditional public schools, but this research does not use controls for student demographics, school location, and self-selection (Christensen, 2007; Schneider, Teske, & Marschall, 2000). When comparing charter and traditional public schools, race and social class differences in school choice processes may influence school safety (Dauter & Fuller, 2016; Howell, 2004; Lindle, 2008). In cities with substantial crime and blight, charter schools may also increase perceptions of school safety by locating in neighborhoods with less physical disorder and lower crime rates than traditional public schools (Burdick-Will, Keels, & Schuble, 2013; Gulosino & Lubienski, 2011). Self-selection may be the most salient consideration when comparing charter and traditional public schools on safety. Controls for race and social class may not fully account for the distinguishing characteristics of families who opt for schools of choice in cities with high proportions of low-income African American families. Among demographically similar families, school choosers may have greater motivation and commitment to their children’s development (Davies & Aurini, 2011; Haynes, Phillips, & Goldring, 2010; Jones et al., 2009). For these reasons, the children of families who self-select into charter schools may exhibit fewer disciplinary and safety-related problems at school (Buckley & Schneider, 2005; Jones et al., 2009). This potential bias presents a methodological challenge to determining whether charter schools produce an improvement on school safety or whether they benefit from attracting highly committed families (Goldring & Phillips, 2008; Rose & Stein, 2014).

This study compares perceived school safety between charter and traditional public schools in Detroit, Michigan, using student-reported survey data administered by the Urban Education Institute in 2014 and 2015.
Student perceptions of school safety may be an important indicator of school safety, being associated with student well-being and academic performance as well as school violence and victimization rates (Hanson & Voight, 2014; Ripski & Gregogy, 2009; Skiba, Simmons, Peterson, & Forde, 2006; Whitlock, 2006). The analyses in this study improve on previous research comparing school safety between charter and traditional public schools by including controls for demographic, neighborhood, and school characteristics. To explore the potential for parent-related selection bias, the analyses take an additional step, controlling for student commute distance and parental involvement. In comparing charter and traditional public schools on perceived school safety in Detroit, this study examines a key indicator for evaluating charter school reforms in deindustrialized cities that has received little attention in the literature.

Charter School Reform in Deindustrialized Detroit

In deindustrialized cities with high rates of crime, physical deterioration, and poverty, politicians have tied school choice to not only school improvement but also community revitalization (Cucchiara, 2013; Davis & Oakley, 2013; Sugrue, 2014; W. J. Wilson, 2012). The case of Detroit, Michigan, epitomizes charter school reforms in Cleveland, Gary, Flint, and many other deindustrialized cities. Detroit’s once thriving automotive sector has steadily declined over the past several decades, dramatically diminishing manufacturing employment and leading to rising poverty (Hammer, 2011; Mirel, 2009). Detroit’s population has shrunk from nearly 2 million at its peak in the 1950s to under 700,000 today (Mirel, 2009; U.S. Census Bureau, 2010). Like other deindustrialized cities, continued departure of Detroit’s tax base has contributed to severe decay of physical infrastructure (Bettis, 1994; Solomon, 2014). Crime may be one of the most pressing challenges. Detroit has repeatedly ranked as one of the most dangerous cities in the United States (Hammer, 2011; Raleigh & Galster, 2015).

These social and economic declines have shaped the context for public education in the city. Among Detroit’s youth, 83% are African American, and 57% live below the poverty line (Stewart & Wolf, 2012; U.S. Census Bureau, 2011). The city’s students report alarmingly high exposure to crime and violence (Detroit Youth Violence Prevention Initiative [DYVPI], 2013; Kann et al., 2014; Lake et al., 2015). In 2013, 55% of Detroit’s high school students reported being a victim of violence, and 87% reported having a relative or friend shot, murdered, or disabled by violence in the past 12 months (DYVPI, 2013). As violent crime has frequently penetrated the city’s schools and made student commutes unsafe, school safety has long been a central concern (Horn & Miron, 1999; Stewart & Wolf, 2012). In 2010, Detroit became one of six cities to receive funding from the U.S. Department of Justice for its Youth Violence Prevention Initiative. The initiative has led to
new school violence prevention programs and enlisted community partners to patrol student routes to school (Detroit Public Schools [DPS], 2013). The city’s traditional public school district, Detroit Public Schools, has also expanded partnerships with local police by establishing a school district police department. Nearly 200 police officers and security personnel now work in the city’s traditional public schools. The school district police department operates a central command center, using video surveillance to monitor schools (DPS, 2013). For Detroit’s charter schools, some have received grants through the Youth Violence Prevention Initiative, and many tout safety and a highly structured learning environment as school priorities (Lubienski & Lee, 2016). Nearly half of all students residing in Detroit attend a charter school, constituting the second highest percentage in an urban district (National Alliance for Public Charter Schools, 2014). Similar to other high-crime cities where charter schools have rapidly proliferated, families in Detroit have consistently identified safety as one of main reasons for seeking out a charter school (Horn & Miron, 1999; Stewart & Wolf, 2012). Yet, it is uncertain whether Detroit’s charter schools are safer than their traditional public school peers.

School Safety

The provision of a safe learning environment may be a necessary step toward addressing educational underperformance in inner-city schools (Cornell & Mayer, 2010; Hanson & Voight, 2014). School safety is associated with a host of student outcomes, including academic achievement, health, and socio-emotional development (Hanson, Austin, & Lee-Bayha, 2004; Ozer & Weinstein, 2004; Voight, Austin, & Hanson, 2013). Exposure to violence and criminal activity in school may induce fear and psychological stress that detract from student learning (Schreck & Miller, 2003). Disruptions from violence and crime can divert resources away from the classroom, reduce instructional time, and create disorderly school processes (Hanson & Voight, 2014; Ripski & Gregogy, 2009; Skiba et al., 2006; Whitlock, 2006). Other influences may increase fear of victimization with detrimental consequences for student outcomes (Bryk, Sebring, Allensworth, Easton, & Luppescu, 2010; Schreck & Miller, 2003). Chronic disciplinary problems, negative school climate, and poor structural conditions of school buildings have also been found to lower student perceptions of school safety (Kutsyuruba, Klinger, & Hussain, 2015; Lacoe, 2015; Skiba et al., 2006; Tanner, 2000).

In cities with high crime rates, students routinely report greater violence and crime at school and during school commutes than students in other settings do (Eaton et al., 2012; Kann et al., 2014; Wiebe et al., 2013). Research further finds that African American students in inner cities report lower perceptions of safety than other students even when actual violence is taken into account (Lacoe, 2015). The school safety gap between students in inner
Cities and their peers in other locations represent a considerable disparity (Lacoe, 2015; Neiman & Hill, 2011). Neighborhood context is thought to be a critical factor (Harding, 2009; Leventhal & Brooks-Gunn, 2004; Steinberg, Allensworth, & Johnson, 2011). Criminal activity in high-crime neighborhoods may spread to school campuses and lead to victimization along student commutes (Lacoe, 2015; Schreck & Miller, 2003; E. J. Wilson, Marshall, Wilson, & Krizek, 2010). In distressed neighborhoods in deindustrialized cities, the combined effects of concentrated poverty, family dissolution, and other social problems may present complex challenges to maintaining a safe school environment (Sampson, 2012a). Neighborhood blight and other forms of disorder prevalent in many deindustrialized cities may also signal weak social control, lowering student perceptions of school safety (May & Dunaway, 2000). Although schools may be able to act as a buffer against neighborhood crime and disorder, the effectiveness of many commonly used school safety strategies has been questioned (Fuller, 2009; Harding, 2009; Johnson, 2009; Skiba & Rausch, 2006). For example, heavy security and monitoring on school campuses as well as zero-tolerance policies mandating expulsion for offenses committed on school grounds may raise fear and deepen inequities for the most vulnerable students (Mowen, Brent, & Kupchik, 2016; Schreck & Miller, 2003). By contrast, other interventions focusing on positive school climate, restorative justice programs, mental health services, and community partnerships seem to have had more promising results (Cornell & Mayer, 2010; Kutsyuruba et al., 2015; Skiba et al., 2006; Steinberg et al., 2011).

**Expectations for Charter School Reform**

In deindustrialized cities, charter schools are expected to be responsive to local demands for safe schools (Bauch & Goldring, 1995; Buckley & Schneider, 2009; Smith, Wohlstetter, Kuzin, & De Pedro, 2011). From the outset of the charter school movement, scholars have vigorously debated whether charter schools can deliver on such promises (Budde, 1988; Fuller, 2009; Maranto & Ritter, 2014). Supporters of charter schools claim that competition for per pupil funding will require charter schools to be responsive to local priorities, such as school safety concerns, in order to attract families (Maranto & Ritter, 2014; Miron, 2010). By operating independent of a school district, charter schools are further expected to have the flexibility to develop innovative school strategies that enable safe learning environments (Hess, 2001; Shober, Manna, & Witte, 2006; Teske, Schneider, Buckley, & Clark, 2000; Wohlstetter, Smith, & Farrell, 2013). As an additional safeguard, regulators and authorizers are meant to ensure accountability for results by revoking a school’s charter for poor performance (Miron, 2010). Critics of charter schools, however, have predicted a divergent set of outcomes (Miron & Nelson, 2002). For opponents of
charter schools, charter schools are anticipated to increase segregation by race and class (Jacobs, 2013; Miron & Nelson, 2002; Ritter, Jensen, Kisida, & McGee, 2010). In high-crime cities, families possessing financial and social resources are expected to congregate in safe havens, leading to neighborhood public schools becoming “dumping grounds” for students with the greatest educational needs (Buras, 2011; Cowen, 2010; Howell, 2004; Renzulli & Evans, 2005; Tuzzolo & Hewitt, 2006). Charter schools may also respond to safety concerns in inequitable ways, using subtle practices to remove disruptive students and those prone to violent behavior while encouraging enrollment of students with high prior performance and highly involved families (Zimmer & Guarino, 2013).

Charter and Traditional Public Schools on Safety

A large body of research has investigated competing predictions for charter schools. Results have been mixed and contingent on state jurisdiction, geographic area, and charter school type (Berends, 2015; Berends, Springer, Ballou, & Walberg, 2009; Lubienski & Weitzel, 2010). Students in no-excuses charter schools in inner cities have exhibited the largest academic gains relative to their counterparts in traditional public schools (Angrist, Pathak, & Walters, 2013; Berends, 2015; Betts & Tang, 2014; Dobbie & Fryer, 2011). In examining school safety, some studies have indicated that charter schools create a safe learning environment through strict enforcement of rules, orderly facilities, administrative oversight, and high expectations for the school community (Angrist et al., 2013; Maranto & Ritter, 2014; Teske et al., 2000; Whitman, 2008). In what may be the only prior statistical comparison of charter and traditional public schools on safety, Christensen (2007) conducted a national-level analysis using the 2006 Schools and Staffing Survey and found that school staff report fewer safety problems in charter schools than in traditional public schools. However, the results were mainly descriptive, lacking controls for demographic, neighborhood, and self-selection characteristics.

In considering student demographics, aggregated statistics show that charter schools disproportionately serve minority and economically disadvantaged students (Berends, 2015; Ritter et al., 2010; U.S. Department of Education, 2015). Yet, comparisons of charter and traditional public schools located within the same neighborhoods find similar distributions of students by race and social class (Jacobs, 2013; Lacireno-Paquet, Holyoke, Moser, & Henig, 2002; Ritter et al., 2010; Zimmer & Guarino, 2013). Within cities, flexibility in choice of location may confer an advantage to charter schools (Burdick-Will et al., 2013; Guloso & Lubienski, 2011). In deindustrialized cities where neighborhood blight and crime are prevalent, the potential for charter schools to locate in orderly neighborhoods may help them to create positive perceptions of school safety and attract safety-oriented families.
(Bell, 2009). In Chicago, Burdick-Will et al. (2013) found that new charter schools without boundary restrictions tended to locate in gentrifying areas, but those with missions to serve disadvantaged students located in the least affluent sections of the city. Gulosino and Lubienski (2011) examined locational strategies of charter schools in Metropolitan Detroit and reported that “mission-driven” charter schools tended to operate in high needs areas but that for-profit managed charter schools were more likely to establish in areas with a relatively higher socioeconomic profile.

Self-selection may be the most difficult obstacle to ensuring a valid comparison between charter and traditional public schools (Hoxby & Murarka, 2008). In depressed cities where a large proportion of families share a similar sociodemographic background, controls for race and class may not capture underlying differences between families who opt for a charter school and those who do not (Fleming et al., 2015; Goldring & Phillips, 2008). School choosers may be more academically motivated, possess broader social networks, and have greater access to resources (Davies & Aurini, 2011; Goldring & Phillips, 2008; Rose & Stein, 2014). These preexisting attributes may then introduce bias when evaluating the performance of charter schools (Betts & Tang, 2014; Hoxby & Murarka, 2008). One method for dealing with self-selection bias has been to use charter school lotteries to compare students winning admission to a charter school with those who do not win admission (Angrist et al., 2013; Dobbie & Fryer, 2011; Hoxby, Murarka, & Kang, 2009). This quasi-experimental approach offers a relatively effective means of removing self-selection bias and tends to find a charter school performance advantage (Angrist et al., 2013; Betts & Tang, 2014; Dobbie & Fryer, 2011). However, oversubscribed charter schools with sufficient demand to warrant a lottery may represent a class of higher performing charter schools (Tuttle, Gleason, & Clark, 2012; Zimmer & Guarino, 2013). Using only data from oversubscribed charter schools may then present an incomplete assessment of charter schools (Betts & Tang, 2014; Tuttle et al., 2012).

The Current Study

In comparing charter and traditional public schools in Detroit, Michigan, this study asks whether charter schools in deindustrialized cities exhibit higher perceived safety than traditional public schools. The analyses in this work have several strengths that substantially improve on previous scholarship. Student surveys are used to examine perceived school safety instead of reports on safety from school staff used in prior research (Christensen, 2007). While student reports remain subject to common limitations of survey research, school officials in competitive choice settings may overestimate school safety to present a positive image of their school, whereas students may not have such motivations when reporting on perceptions of school safety (Hoff, 2006). Student perceptions of school safety are
also highly relevant, being associated with numerous student outcomes and measures of actual school violence and victimization on school grounds (Hanson & Voight, 2014; Ripski & Gregogy, 2009; Skiba et al., 2006; Whitlock, 2006).

This study links together data from multiple sources to generate control variables for demographic, neighborhood, and parent-related selection characteristics. Neighborhood characteristics may be important, with neighborhood crime and physical disorder being negatively related to perceived school safety (Cornell & Mayer, 2010; Kirk & Sampson, 2011; Sampson, 2012a; Schreck & Miller, 2003). As charter schools may have the flexibility to locate in neighborhoods with less crime and blight (Burdick-Will et al., 2013; Gulosino & Lubienski, 2011), this study tests the following hypothesis:

**Hypothesis 1:** Relative to traditional public schools, charter schools will exhibit a positive relationship with perceived school safety (see Christensen, 2007), but this relationship will decrease after controlling for neighborhood characteristics (major reported crime and structural vacancy rate).

In addition, in deindustrialized cities with high percentages of low-income African American families, controls for demographic factors may explain less about differences in student composition between schools than other within-group characteristics (Davies & Aurini, 2011; Goldring & Phillips, 2008; Rose & Stein, 2014). This study uses controls for student commute distance and parental involvement to explore potential selection bias. In Detroit’s open enrollment system, transportation to a charter or traditional public school outside of a student’s neighborhood is typically a family responsibility (Gulosino & Lubienski, 2011; Lake et al., 2015). Charter schools largely do not provide transportation, and transportation for Detroit’s traditional public schools is generally limited to students attending their assigned neighborhood schools (Bell, 2009; DPS Office of Transportation, 2015). Schools have also created large catchment areas and a complex school transportation network (Lake et al., 2015) in which secondary school students residing more than two miles from their assigned neighborhood schools are issued city bus passes (DPS Office of Transportation, 2015). Families who commute to public and charter schools of choice in Detroit may have access to transportation, high commitment, and other social resources (Bell, 2009; Gulosino & Lubienski, 2011; Rose & Stein, 2014). These parental attributes may confer a self-selection advantage to charter schools in raising perceived school safety since the children of school choosers may be less likely to exhibit violent or disruptive behavior in school (Bell, 2009; Buckley & Schneider, 2005; Jones et al., 2009). Controlling for student commute distance may help to account for preexisting attributes of school choosers. Nevertheless, charter schools may still benefit from attracting the most motivated parents within a given neighborhood. Controlling for parental involvement may offer additional
understanding. Schools that disproportionately attract highly motivated parents may be likely to report greater parental involvement (Bifulco & Ladd, 2006b; Goldring & Philipps, 2008). To investigate these relationships, the following hypothesis is tested:

**Hypothesis 2:** After controlling for student commute distance and parental involvement, the relationship between charter schools and perceived school safety will decrease substantially, losing statistical significance.

Even though commute distance and parental involvement may be useful proxies for preexisting parental motivation and resources (Bell, 2009; Bifulco & Ladd, 2006b; Gulosino & Lubienski, 2011; Jeynes, 2012), this study is unable to rule out other forms of selection bias. School choosers may possess advantages unaccounted for by these two variables, while other unobserved experiences or events triggering school selection may produce unaccounted for differences in student composition between schools (Fleming et al., 2015; Hoxby & Murarka, 2008). Furthermore, an important limitation of these two variables is that they are likely to be interrelated with school characteristics (see Figure 1). A school that is able to foster a perception that it is safe may induce motivated parents to travel longer distances, and school approaches to parents may contribute to higher rates of parental involvement (Bifulco & Ladd, 2006b; Smith et al., 2011). The precise mechanisms underlying commute distance and parental involvement are uncertain, limiting interpretation of results. Despite this constraint, the two variables may shed light on potential selection bias as well as activities performed by parents that are related to perceived school safety.
Data and Methods

Table 1
Description of Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample</th>
<th>Population</th>
<th>Percentage of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>92</td>
<td>106</td>
<td>87</td>
</tr>
<tr>
<td>Charter</td>
<td>58</td>
<td>98</td>
<td>59</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>67</td>
<td>74</td>
<td>91</td>
</tr>
<tr>
<td>Charter</td>
<td>47</td>
<td>67</td>
<td>70</td>
</tr>
<tr>
<td>Secondary*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>25</td>
<td>32</td>
<td>78</td>
</tr>
<tr>
<td>Charter</td>
<td>11</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>Neighborhood school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>68</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Charter</td>
<td>19</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Commuter school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>25</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Charter</td>
<td>39</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>204</td>
<td>74</td>
</tr>
</tbody>
</table>

*Secondary includes two charter and two traditional public schools with primary grades in the sample.

Data Sources

Data were linked from four separate sources for the analyses in this study. For the dependent variable, student-reported survey data on perceived school safety administered by the University of Chicago’s Urban Education Institute in both 2014 and 2015 were used. From the same survey administrations, student-reported bullying and teacher-reported parental involvement measures were obtained. The majority of the schools reporting on these measures were the same in 2014 and 2015, and all schools participating in the survey are located within the city limits of Detroit, Michigan. Survey data collected on the same schools in both years together with other continuous variables were averaged to enhance the reliability of results and improve statistical power (Magnuson, Duncan, Lee, & Metzger, 2016). In merging these two years, 34 schools participating in only the 2015 survey and 15 schools participating in only the 2014 survey were included in the sample. A comparison of the final sample of schools to the total population of schools located in Detroit is presented in Table 1. The sample represents 74% of Detroit’s schools (59% of charter schools; 87% of traditional public schools). Many of the schools not represented in the survey had a highly specialized focus. Among traditional public schools not represented in the survey, there were three technical, two selective enrollment, one performing
Arts, and four special education schools. For charter schools, there were 18 conventional schools, seven bilingual schools (Hispanic majority), five strict discipline schools, two personalized learning high schools, one residential mental health school, one public services training school, one state turnaround school, one school for pregnant teenagers, and the only charter school in Detroit serving a predominantly Muslim student population. Charter schools not represented were demographically similar to charter schools in the sample, although unrepresented charter schools had statistically higher rates of Hispanic students ($p < .05$). The omission of charter schools with larger proportions of Hispanic students reduces overall demographic variation and may increase the importance of controls for non-race sources of variation.

School-level demographic data on race and economic disadvantage were compiled from the Michigan Department of Education’s Center for Educational Performance and Information. Major reported crimes occurring in Detroit from 2011 to 2014 were obtained from the Detroit Police Department. These data were matched to schools to measure neighborhood crime by school location. Police reports of crimes committed on school grounds over the same period were also matched to schools. Finally, school-level student commute distances were obtained from Data Driven Detroit, a nonprofit data analysis company that partnered with the Michigan Department of Education in 2013–2014 in determining school commute distances for Detroit’s students. Structural vacancy rates by census tract were obtained from Data Driven Detroit and mapped to schools in the sample. Table 2 provides a descriptive overview of the variables of analysis.

**Dependent Variable**

*Perceived School Safety*

A measure of perceived school safety was comprised of five student-reported items on a 4-point scale. The items were derived from the Five Essentials Framework, aggregated to the school level using Rasch analysis and standardized to facilitate interpretation of results (Bryk et al., 2010; Sebring et al., 2006). Higher scores indicate higher levels of perceived school safety. The five items include how safe students feel (*not safe* to *very safe*) outside/around the school, traveling between home and school, in the bathrooms of the school, in the hallways of the school, and in their classes. These in- and out-of-school items represent components influencing student perceptions of safety but exclude other indicators that may affect safety perceptions, such as school climate (Skiba et al., 2006).
Independent Variables

School Characteristics

A dummy variable for charter schools was created using traditional public schools as the reference category. Additional dummy variables were created for neighborhood charter, neighborhood public, commuter charter, and commuter public schools (categorization process detailed under commute distance variable). Table 1 shows that there is a greater proportion of secondary traditional public schools in the sample relative to charter schools. With students in secondary grades reporting lower fear of victimization in school than those in primary grades, school level was a binary variable (primary and secondary) used to control for potential grade-level differences in perceived school safety (Dauter & Fuller, 2016; Kann et al., 2014; Neiman & Hill, 2011; Schreck & Miller, 2003). A measure of general crime in school and a measure of violent crime (aggravated assault, assault, weapons offense, and kidnapping) in school were analyzed. In Table 2, violent crime on

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Table 2
Descriptives for Variables (N = 150)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Mean (SD)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived school safety (standardized)</td>
<td>0 (1.00)</td>
<td>-1.88</td>
<td>3.53</td>
</tr>
</tbody>
</table>

Student demographics (%)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Mean (SD)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>87.70 (26.82)</td>
<td>1.44</td>
<td>100.00</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7.73 (22.25)</td>
<td>0.00</td>
<td>94.27</td>
</tr>
<tr>
<td>Other</td>
<td>4.56 (11.53)</td>
<td>0.00</td>
<td>98.27</td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>82.24 (12.16)</td>
<td>15.79</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Neighborhood characteristics

| Neighborhood crime (n) | 293 (213) | 20 | 729 |
| Neighborhood vacancy rate (%) | 19.47 (12.16) | 1.94 | 42.68 |

School characteristics

| Crime at school (n) | 12.39 (15.90) | 0.00 | 66.00 |
| Violent crime at school (n) | 2.52 (4.05) | 0.00 | 25.00 |
| Bullyingb (std) | 0 (1.00) | -1.98 | 3.32 |
| Primary (n students) | 506 (217) | 62 | 1466 |
| Secondary (n students) | 579 (411) | 168 | 1572 |

Parent-related characteristics

<table>
<thead>
<tr>
<th>Student commute distance:</th>
<th>Mean (SD)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary (miles)</td>
<td>2.73 (1.75)</td>
<td>0.90</td>
<td>8.12</td>
</tr>
<tr>
<td>Secondary (miles)</td>
<td>4.58 (1.93)</td>
<td>1.83</td>
<td>9.35</td>
</tr>
<tr>
<td>Parental involvement (standardized)</td>
<td>0 (1.00)</td>
<td>-1.08</td>
<td>2.52</td>
</tr>
</tbody>
</table>

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*aAll figures reference the school level.

*bBullying is the only variable with missing data (n = 15).
school campuses ranges from 0 to 25 incidents among schools in the sample. A student-reported measure of bullying was used to explore measures related to perceived school safety.

Demographics

The school percentage of African American, Hispanic, and students of other backgrounds (White, Asian, Native American) were recorded for each school in the sample. The percentage of low-income students eligible for free or reduced price lunch in a school was used as a proxy for economic disadvantage. Race and social class variation in the sample appear to be relatively minimal. In Table 2, 88% of students are African American, and 82% are economically disadvantaged. Hispanic students constitute the second largest group in the sample, representing a possible source of racial variation (Haynes et al., 2010).

Neighborhood Characteristics

The number of major reported crimes within a scout car neighborhood were linked to schools in the sample. Scout car neighborhoods are demarcated for policing purposes and are approximately one square mile, comprising two to three census tracts (Bynum & McCluskey, 2007). Major reported crimes were homicide, robbery, larceny, burglary, stolen vehicle, and aggravated assault. Each major reported crime includes the type of crime that occurred, time and date that the crime was reported, and the address, census tract, and neighborhood where the crime occurred. As an indicator of non-crime neighborhood disorder, neighborhood structural vacancy rates were matched to schools in the sample using census tracts. The measure for vacancy rate was created through an evaluation of the structural vacancy of all buildings in a census tract that were likely or very likely vacant.

Commute Distance

Average student commute distances were linked to schools in the sample. Commute distance was also used to categorize charter and traditional public schools into commuter and neighborhood schools. In Detroit’s high choice arena, there are traditional public and charter schools that enroll large proportions of students who commute to school from outside of their neighborhoods as well as neighborhood public and charter schools that largely draw students from within the neighborhood in which a school is located. A commuter school was defined as a primary school with an average student commute distance of over 2.5 miles and a secondary school with an average student commute distance of over 3.5 miles. Neighborhood schools represented a primary school with an average student commute of 2.5 miles or less and a secondary school with an average student commute of 3.5 miles.
or less. These categories were developed in consultation with previous research (Schlossberg, Greene, Phillips, Johnson, & Parker, 2006). However, in Detroit’s open enrollment system, even neighborhood schools enroll students from outside of their catchment area, making average student commutes higher than what might be expected in cities without such extensive choice (Data Driven Detroit, 2014a, 2014b). With declining enrollments and large numbers of school closures in Detroit over the past 20 years, secondary schools tend to have longer commute distances than primary schools (DPS Office of Transportation, 2015; Lake et al., 2015). Table 2 shows that the minimum average student commute distance is 1.8 miles for secondary schools and 0.9 miles for primary schools in the sample. The average student commute distances are 2.7 miles and 4.6 miles, respectively. The neighborhood and commuter categories were further cross-referenced against student dispersion maps indicating the percentage of students attending a school by census tract. In verifying the categorization strategy, all schools classified as neighborhood schools had the majority of their students residing in both the census tract location of the school or contiguous census tracts. Table 1 shows that 73% (n = 68) of traditional public schools are neighborhood schools and 66% (n = 42) of charter schools are commuter schools in the sample. Student commute distance also has a positive relationship with perceived school safety (r = .30, p < .001).

Parental Involvement

An indicator of parental involvement was generated from four teacher-reported items on a 5-point Likert scale. Teachers reported the extent to which parents at a school volunteer their time to support the school, contact the teacher about their child’s performance, respond to the teacher’s suggestions for helping their child, and attend parent-teacher conferences. These in- and out-of-school measures of parental involvement were aggregated to the school level using Rasch analysis and standardized to facilitate interpretation of results. Higher scores indicate higher levels of parental involvement. The indicator of parental involvement has a strong positive relationship with perceived school safety (r = .57, p < .001). This relationship draws attention to a caveat. Namely, even though parental involvement may predict higher perceived school safety (Jones et al., 2009; Ozer & Weinstein, 2004; Sheldon & Epstein, 2002), an alternative possibility is that schools with higher perceived safety are able to elicit greater parental involvement. The data used in the analyses are unable to resolve this issue, underscoring a need for cautious interpretation of the relationship between perceived school safety and parental involvement.
Data Analysis

To gain an initial understanding of perceived school safety, correlations were explored between perceived school safety and other indicators of in- and out-of-school safety. Following this step, independent t tests were performed to examine differences between charter and traditional public schools in the sample on perceived school safety, student demographics, school characteristics, neighborhood characteristics, student commute distance, and parental involvement. Multiple regression analyses were then conducted to examine perceived school safety differences between charter and traditional public schools net of controls. In Model 1, controls for economic disadvantage, percentage of Hispanic students, school level, neighborhood vacancy rate, and major reported neighborhood crime were included in the model. In Model 2, average student commute distance and parental involvement were added. To deepen the analyses, schools were then categorized using the commute distance variable. Four dummy variables were created, denoting neighborhood public, neighborhood charter, commuter public, and commuter charter schools. Independent t tests were performed to compare charter and traditional public schools categorized as neighborhood schools and compare charter and traditional public schools categorized as commuter schools on perceived school safety, student demographics, school characteristics, neighborhood characteristics, and student commute distance. To compare the four types of schools on perceived school safety, multiple regression analysis was conducted, controlling for the aforementioned variables and using neighborhood public schools as the reference category. The final step of the analysis aimed to contextualize regression results for neighborhood charter and public schools where proximity to residence may have a greater role in determining what school a child attends (Stewart & Wolf, 2012). Each neighborhood public school reporting below average perceived school safety was compared to its nearest charter schools on perceived school safety. Conversely, each neighborhood charter school reporting below average perceived school safety was compared to its nearest traditional public school on perceived school safety. For this small subset of schools, dispersion maps were used to locate schools and ascertain nearest distances.

Results

Perceived School Safety

Correlations for perceived school safety and other components of safety are presented in Table 3. Perceptions of school safety are associated with several measures of in-school safety. Less bullying is associated with higher rates of perceived school safety ($r = .75, p < .001$), while both reported crime in school ($r = -.34, p < .01$) and reported violent crime in school ($r = -.39,$
p < .01) are negatively associated with perceived school safety. Conversely, neighborhood vacancy rate and major neighborhood reported crime have no statistical relationship with perceived school safety. For perceived school safety, in-school measures of safety are more salient than neighborhood measures, which may be important for determining school characteristics related to school safety perceptions.

Comparison of Charter and Traditional Public Schools on Perceived School Safety

Table 4 presents the means, standard deviations, and statistically significant differences between charter and traditional public schools on the variables of analysis. Charter schools report statistically higher perceived school safety than traditional public schools (p < .01). This result is consistent with previous school safety comparisons between charter and traditional public schools that do not use rigorous controls (Christensen, 2007). Traditional public schools also show statistically higher rates of reported crime in school (M = 19.17, SD = 16.58, p < .001) and reported violent crime in school (M = 3.87, SD = 4.63, p < .001) than charter schools on reported crime in school (M = 1.62, SD = 5.49) and reported violent crime in school (M = 0.38, SD = 0.95). For both charter and traditional public schools, the majority of students is African American and economically disadvantaged, but charter schools in the sample have a statistically higher percentage of African American (p < .01) and economically disadvantaged students (p < .001). Approximately 91% of charter school students are African American, and 87% are economically disadvantaged compared to 86% and 79% in traditional public schools. By contrast, traditional public schools have a statistically larger proportion of Hispanic students (p < .05) in the sample. Based on student enrollment, there are no statistical differences in school size between charter and traditional public schools at primary and secondary levels. At the neighborhood level, charter schools are not located in areas with
less major reported crime or lower rates of vacancy relative to the locations of traditional public schools. The similarity between charter and traditional public schools on major reported neighborhood crime and neighborhood vacancy rate is notable given that charter schools may be expected to locate in safer and more orderly areas than traditional public schools (Bell, 2009).

Both average student commute distance and parental involvement are statistically higher in charter schools. Charter primary schools ($M = 3.71, SD = 2.03, p < .001$) in particular have statistically longer average commutes compared to those of traditional public primary schools ($M = 2.04, SD = 1.12$). Charter school families appear to participate more frequently in their children’s education and travel greater distances to school.

Table 5 presents the results of two regression models comparing charter and traditional public schools on perceived school safety. In Model 1, the charter school coefficient ($B = .68, SE = .17, p < .001$) is positive and statistically significant net of controls. The results exhibit a large association,
charter schools scoring .68 of a standard deviation higher than traditional public schools on perceived school safety. For the demographic variables, the percentage of economically disadvantaged students is not statistically significant, but the percentage of Hispanic students is positive and statistically significant (\( p < .001 \)). The dummy variable for secondary schools is not statistically significant. The two neighborhood indicators, major reported crime and vacancy rate, are not statistically significant. Whether traditional public or charter, these two neighborhood indicators are unrelated to perceptions of school safety in the sample. Model 1 explains 14% of the variability in perceived school safety. In Model 2, student commute distance and parental involvement are added. Student commute distance (\( B = .13, SE = .05, p < .05 \)) and parental involvement (\( B = .53, SE = .08, p < .001 \)) reduce the charter school coefficient by 88%, and it is no longer statistically significant. The coefficient for percentage of Hispanic students remains statistically significant (\( p < .05 \)). Compared to Model 1, Model 2 explains a greater proportion of the variability in perceived school safety at 38%. In diminishing the relationship between charter schools and perceived school safety, the commute distance and parental involvement variables suggest that attributes of school choosers may be underlying higher perceived school safety in charter schools to some extent. It is worth reiterating that school characteristics also likely contribute to these relationships (Bifulco & Ladd, 2006b; Preston, Goldring, Berends, & Cannata, 2012).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charter school(^b)</td>
<td>0.68*** (0.17)</td>
<td>0.08 (0.18)</td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>−0.01 (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Percentage Hispanic</td>
<td>0.01*** (0.01)</td>
<td>0.01* (0.01)</td>
</tr>
<tr>
<td>Secondary (dummy)</td>
<td>0.12 (0.19)</td>
<td>−0.46* (0.18)</td>
</tr>
<tr>
<td>Neigh. Crime</td>
<td>0.01 (0.01)</td>
<td>−0.01 (0.01)</td>
</tr>
<tr>
<td>Vacancy rate</td>
<td>−0.01 (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Student commute (miles)</td>
<td></td>
<td>0.13* (0.05)</td>
</tr>
<tr>
<td>Parental involvement</td>
<td></td>
<td>0.53*** (0.08)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.19 (0.59)</td>
<td>−1.49** (0.66)</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.174</td>
<td>0.416</td>
</tr>
<tr>
<td>Adjusted ( R^2 )</td>
<td>0.139</td>
<td>0.383</td>
</tr>
<tr>
<td>( N )</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

\(^a\)Unstandardized coefficients are presented with standard errors in parentheses. 
\(^b\)The reference category is public schools. 
\(* p < .05. ** p < .01. *** p < .001.\)
Comparison of Neighborhood and Commuter Traditional Public and Charter Schools

Table 6 compares the means, standard deviations, and statistically significant differences between traditional public and charter schools categorized as neighborhood schools and traditional public and charter schools categorized as commuter schools. For neighborhood schools, neighborhood charter schools report statistically higher perceived school safety than neighborhood public schools ($p < .05$). Neighborhood charter schools have a higher percentage of economically disadvantaged students at 93% compared to 82% in neighborhood public schools ($p < .001$). Neighborhood public schools, however, report statistically higher reported crime in school ($M = 20.08, SD = 15.97, p < .001$) and reported violent crime in school ($M = 4.28, SD = 4.92, p < .001$) compared to reported crime in school ($M = 4.32, SD = 9.12$) and reported violent crime in school ($M = 0.84, SD = 1.50$) in neighborhood charter schools. There are no statistical differences between charter and traditional schools for neighborhood crime, neighborhood vacancy rate, parental involvement, and student commute distance. For commuter schools, commuter charter schools report higher perceived school safety than commuter public schools, but this difference is not statistically significant. In commuter charter schools, 85% of students are economically disadvantaged, whereas this percentage is 71% in commuter public schools ($p < .001$). Commuter public schools have statistically higher rates of reported crime in school ($M = 16.63, SD = 18.30, p < .001$) and reported violent crime in school ($M = 2.71, SD = 3.57, p < .01$) compared to rates of reported crime in school ($M = 0.31, SD = 0.57$) and reported violent crime in school ($M = 0.15, SD = 0.37$) in charter schools. There are no statistical differences between commuter charter and public schools for neighborhood crime, neighborhood vacancy rate, parental involvement, and student commute distance.

Table 7 presents the results of two regression models with dummy variables for neighborhood charter, commuter charter, and commuter public schools. In Model 1, relative to neighborhood public schools, all three other types of schools exhibit a large positive association with perceived school safety net of controls. Neighborhood charter ($B = .70, SE = .25, p < .01$) and commuter public schools ($B = .66, SE = .25, p < .01$) score nearly .70 of a standard deviation higher than neighborhood public schools while commuter charter schools ($B = .89, SE = .20, p < .001$) score nearly .90 of a standard deviation above neighborhood public schools. The percentage of Hispanic students is the only other statistically significant variable in the model ($B = .2, SE = .01, p < .001$). Despite commuter charter and commuter public schools being located in areas with less major reported crime and lower vacancy rates, neither of these variables is statistically significant. Model 1 explains 17% of the variability in perceived school safety. In
<table>
<thead>
<tr>
<th>Variable</th>
<th>Neighborhood Schools Mean (SD)</th>
<th>Commuter Schools Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Traditional Public</td>
<td>Charter</td>
</tr>
<tr>
<td>Perceived school safety</td>
<td>–0.36 (0.96)</td>
<td>0.25* (1.06)</td>
</tr>
<tr>
<td>Student demographics (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>83.24 (32.35)</td>
<td>83.44 (31.77)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>12.61 (28.01)</td>
<td>7.60 (22.11)</td>
</tr>
<tr>
<td>Other</td>
<td>4.15 (7.85)</td>
<td>8.96 (23.38)</td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>81.96 (10.99)</td>
<td>92.64*** (7.89)</td>
</tr>
<tr>
<td>School characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime at school (n)</td>
<td>20.08*** (15.97)</td>
<td>4.32 (9.12)</td>
</tr>
<tr>
<td>Violent crime at school (n)</td>
<td>4.2*** (4.92)</td>
<td>0.84 (1.50)</td>
</tr>
<tr>
<td>Bullying</td>
<td>–0.33 (0.96)</td>
<td>–0.01 (1.15)</td>
</tr>
<tr>
<td>Students (n)</td>
<td>537 (257)</td>
<td>495 (223)</td>
</tr>
<tr>
<td>Neighborhood characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood crime (n)</td>
<td>311 (194)</td>
<td>356 (246)</td>
</tr>
<tr>
<td>Neighborhood vacancy rate (%)</td>
<td>22.88 (11.76)</td>
<td>25.17 (11.91)</td>
</tr>
<tr>
<td>Parent-related characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student commute distance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary (miles)</td>
<td>1.66 (0.41)</td>
<td>1.86 (0.40)</td>
</tr>
<tr>
<td>Secondary (miles)</td>
<td>2.79 (0.49)</td>
<td>2.96 (0.19)</td>
</tr>
<tr>
<td>Parent involvement</td>
<td>–0.40 (0.77)</td>
<td>–0.32 (0.75)</td>
</tr>
<tr>
<td>N</td>
<td>68</td>
<td>19</td>
</tr>
</tbody>
</table>

All figures reference the school level
*p < .05. **p < .01. ***p < .001.
analyzing schools categorized by commute distance, it is unsurprising that commuter charter and public schools outperformed neighborhood public schools given the results for commute distance in the first set of regression models.

Model 2 includes a control for parental involvement. When accounting for parental involvement, the coefficients for both commuter charter ($B = 0.25, SE = 0.20$) and commuter public schools ($B = 0.25, SE = 0.20$) are reduced by 72% and 62%, respectively, and are no longer statistically significant. The coefficient for neighborhood charter schools also drops by 29% but remains statistically significant ($B = 0.5, SE = 0.22, p < .05$), with neighborhood charter schools scoring 0.5 of a standard deviation higher than neighborhood public schools. In Model 2, the coefficient for Hispanic students is no longer statistically significant with the inclusion of the parental involvement variable. Higher perceptions of school safety reported in schools with larger numbers of Hispanic students appear to be positively related to rates of parental involvement. Model 2 explains 37% of the variability in perceived school safety. Considering the substantial decrease in the charter school coefficients, Model 2 suggests that higher perceived safety exhibited by commuter public and charter schools is related to parental involvement. By contrast, neighborhood charter schools exhibit higher perceived safety net of parental involvement. To examine this result further, Table 8 compares mean perceived school safety of neighborhood public schools reporting below average perceived school safety to that of the

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood charter</td>
<td>0.70** (0.25)</td>
<td>0.50* (0.22)</td>
</tr>
<tr>
<td>Commuter public</td>
<td>0.66** (0.25)</td>
<td>0.25 (0.22)</td>
</tr>
<tr>
<td>Commuter charter</td>
<td>0.89*** (0.20)</td>
<td>0.25 (0.20)</td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>−0.01 (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Percentage Hispanic</td>
<td>0.02*** (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Secondary (dummy)</td>
<td>0.02 (0.19)</td>
<td>−0.36* (0.17)</td>
</tr>
<tr>
<td>Neighborhood crime</td>
<td>0.01 (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Vacancy rate</td>
<td>0.01 (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Parent involvement</td>
<td></td>
<td>0.58*** (0.09)</td>
</tr>
<tr>
<td>Constant</td>
<td>−0.50 (0.64)</td>
<td>−0.63* (0.60)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.214</td>
<td>0.406</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.170</td>
<td>0.368</td>
</tr>
<tr>
<td>$N$</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

*Unstandardized coefficients are presented with standard errors in parentheses.

bNeighborhood public schools is the reference category.

*p < .05. **p < .01. ***p < .001.
nearest charter schools as well as mean perceived school safety of neighbor-
hood charter schools reporting below average perceived school safety to
that of the nearest public schools. The closest alternative charter school
for students in neighborhood public schools has, on average, much higher
perceived school safety ($M = -0.03$, $SD = 0.65$) than the neighborhood public
schools ($M = -0.98$, $SD = 0.48$). The closest alternative public schools for
neighborhood charter school students report similar perceived school safety
($M = -0.31$, $SD = 1.41$ compared to $M = -0.43$, $SD = 0.31$). These additional
findings could be indicative of school strategies being partly responsible for
higher perceived school safety in neighborhood charter schools. However,
this potential underlying mechanism is speculative since the analyses are
based on a small subset of schools and are unable to rule out selection
bias. Neighborhood charter schools may experience higher perceived school
safety as a result of attracting families with subtle advantages unaccounted
for in these analyses (Fleming et al., 2015).

**Discussion**

This study compared charter and traditional public schools on perceived
school safety in a high-crime deindustrialized city with extensive school
choice. The analyses shed light on a priority for charter school reform on
which little research has been done. Initial findings showed that traditional
public schools had higher reported crime in school, higher reported violent
crime in school, and lower perceived school safety than charter schools.
Charter schools as a whole exhibited a large positive association with per-
ceived school safety net of controls for student demographics, neighbor-
hood crime, and neighborhood vacancy rate. However, when student
commute distance and parental involvement were controlled, the positive

---

**Table 8**

<table>
<thead>
<tr>
<th>Neighborhood Schools</th>
<th>Perceived School Safety Mean (SD)</th>
<th>Perceived School Safety at Closest Alternative Mean (SD)</th>
<th>Distance to Closest Alternative (miles) Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below average neighborhood public schools ($n = 32$)</td>
<td>$-0.98 (0.48)$</td>
<td>$-0.03 (0.65)$</td>
<td>$1.26 (0.60)$</td>
</tr>
<tr>
<td>Below average neighborhood charter schools ($n = 12$)</td>
<td>$-0.43 (0.31)$</td>
<td>$-0.31 (1.41)$</td>
<td>$1.18 (0.36)$</td>
</tr>
</tbody>
</table>

*For neighborhood public schools, closest alternative refers to nearest charter schools. For neighborhood charter schools, closest alternative refers to nearest public schools. Eighteen of the closest charter schools were neighborhood charter schools. Eight of the closest public schools were neighborhood schools.*
relationship between charter schools and perceived school safety decreased substantially, losing statistical significance. Analyses by school type demonstrated that neighborhood public schools also had lower perceived school safety than neighborhood charter, commuter charter, and commuter public schools. After controlling for parental involvement, all differences by school type decreased considerably, and only neighborhood charter schools remained statistically higher on perceived school safety relative to neighborhood public schools.

The overall results showed that commute distance and parental involvement diminished the positive association between charter schools and perceived school safety. One interpretation of this finding is that once the attributes of school choosers are taken into consideration, differences in perceived school safety become much less prominent between charter and traditional public schools. While the literature suggests that commute distance and parental involvement may be closely associated with preexisting parent attributes (Bell, 2009; Bifulco & Ladd, 2006b; Gulosino & Lubienski, 2011; Jeynes, 2012; Rose & Stein, 2014), an important caveat to this interpretation is that commute distance and parental involvement are likely interrelated with characteristics of schools. To induce safety-oriented families to commute outside of their neighborhoods, for instance, schools of choice may at a minimum have to foster a perception that they are safe, possibly through advertising the school as a safe and orderly environment, adopting specific safety measures, and encouraging parent participation at school (Angrist et al., 2013; Hoxby et al., 2009). Rates of parental involvement in charter schools may also be driven by school approaches to parents and even influenced by perceptions of safety fostered by schools (Bifulco & Ladd, 2006b; Bryk et al., 2010; Preston et al., 2012; Smith et al., 2011). If commute distance and parental involvement are more reflective of school characteristics than parent attributes, controlling for them would underestimate the relationship between perceived school safety and charter schools. As this study is unable to isolate the relative contribution of school and parent attributes to these variables, the results of this study are suggestive and require modest interpretation. Despite this limitation, whether driven by preexisting parent attributes or school strategies, the results do underscore a positive association between the activities of parents and perceived school safety.

Additionally, in classifying charter and traditional public schools into commuter and neighborhood schools, commuter public schools seem to experience dynamics similar to those of charter schools. They attract families with the initiative to seek out a school and the means to commute to schools outside of their neighborhood. Commuter public schools also exhibited higher perceived school safety relative to neighborhood public schools until parent involvement was controlled. Another notable finding was that only neighborhood charter schools maintained higher perceived school safety relative to neighborhood public schools after controlling for parental
involvement. Examination of a small subset of neighborhood public schools reporting below average perceived school safety showed that the nearest charter schools had, on average, higher perceived school safety. Given these results, a possibility is that neighborhood charter schools raise student perceptions of safety through school strategies such as a highly structured learning environment and strict enforcement of behavioral codes (Maranto & Ritter, 2014; Whitman, 2008; Zimmer & Gaurino, 2013). However, this interpretation is speculative since this study neither examines specific school safety strategies nor is it able to rule out unaccounted forms of selection bias. Families that apply to charter schools located in their neighborhoods may have unobserved advantages, such as efficacious social networks and access to information, that bias the results in this study (Betts & Tang, 2014; Goldring & Philipps, 2008; Fleming et al., 2015). Similarly, if neighborhood charter schools use strict disciplinary measures, they may also experience relatively higher student attrition, producing differences in student composition that may further distort school comparisons of perceived school safety (Zimmer & Guarino, 2011).

Neighborhood Crime and Vacancy Rate

Much research has demonstrated a negative relationship between neighborhood crime and blight and perceived school safety (Cornell & Mayer, 2010; Kirk & Sampson, 2011; Sampson, 2012b; Schreck & Miller, 2003). In this study, neighborhood crime and structural vacancy rate were unrelated to perceived school safety. Several reasons may explain the absence of this relationship. First, high rates of crime and vacancy are pervasive throughout Detroit and may be more uniform across neighborhoods than in other U.S. cities (Raleigh & Galster, 2015). Very few neighborhoods exist in Detroit that have low crime and low physical disorder within which schools might locate, and even relatively safer neighborhoods are often adjacent to areas with high rates of crime and urban decay (Detroit Residential Parcel Survey, 2010; Raleigh & Galster, 2015). Second, families who opt for a school outside of their neighborhood are responsible for transportation to and from school (Raleigh & Galster, 2015). This situation may lessen the effects of neighborhood factors on perceptions of school safety as commuting students may have less exposure to the neighborhood surrounding their school (E. J. Wilson et al., 2010). Third, charter schools in the suburbs outside of Detroit serve 17,000 students who reside within Detroit (Center for Educational Performance and Information, 2014). In these suburban schools, prior research suggests that the relationship between neighborhood crime and disorder and perceived school safety may be stronger (Gulosino & Lubienski, 2011) and resemble patterns that tend to be observed within cities, such as Chicago (Burick-Will et al., 2013).
Policy Implications and Directions for Future Research

The gap in perceived school safety between students in inner-city schools and those in other settings represents an educational disparity of considerable importance (Eaton et al., 2012; Kann et al., 2014; Lacoe, 2015). In deindustrialized cities with high crime rates, parents' perceptions of school safety seem to take precedence in school choice decisions over many other indicators of school performance (Friedman et al., 2006; Stewart & Wolf, 2012; E. J. Wilson et al., 2010). Yet, this process of safety-seeking through school choice may highlight parental sorting mechanisms should more committed and well-resourced families be capable of seeking out schools of choice (Goldring & Philipps, 2008). As safety-seeking families depart neighborhood public schools, perceptions of school safety may rise in the schools that they choose while possibly leaving neighborhood public schools to educate students with fewer home advantages and greater behavioral problems (Buras, 2011; Cowen, 2010; Howell, 2004). Such processes may indicate that school choice reforms in distressed cities offer little benefit to the most vulnerable students. On the other hand, families have long opted for private, Catholic, and selective enrollment public schools of choice in inner cities (Bauch & Goldring, 1995; Bell, 2009). Charter school reforms may then have expanded school options for economically disadvantaged African American families who might otherwise have not had access to other educational alternatives. Among these families, there is also much within-group variation in school choice participation (Stewart & Wolf, 2012). Clearer understanding of the factors underlying these within-group differences may help demonstrate ways to improve the fairness of school choice. In Detroit, a common enrollment system has recently been rolled out for the city's charter schools that may help create a fairer school selection process (Gross, DeArmond, & Denice, 2015). Nonetheless, access to transportation and reliable information may be greater needs for bridging gaps among families (Lake et al., 2015; Stewart & Wolf, 2012).

Alongside school choice policies, schools in cities with high crime rates have undertaken various strategies to improve school safety. Since 2010, Detroit Public Schools has created school safety hubs, increased security and monitoring, and initiated volunteer patrols along student commutes (Detroit Public Schools, 2013). Such initiatives may affect students' perceptions of safety in different ways (Cornell & Mayer, 2010; Kutsyuruba et al., 2015; Skiba et al., 2006). Although the effects of specific initiatives on perceived school safety are not examined in this study, the observed relationship between parental involvement and perceived school safety may have implications for improving students' perceptions of school safety (Jones et al., 2009; Ozer & Weinstein, 2004). Some evidence indicates that school-led initiatives that increase the presence of parents at school raise student perceptions of safety while parenting supports from schools may lead to
improved student behavior (Sheldon & Epstein, 2002). Whether these school-led parental involvement strategies are able to enhance perceived school safety in challenging school environments is a question for further study. Future inquiry might also expand on the results of this study by investigating specific safety strategies used in charter and traditional public schools and how differences in strategies may relate to perceived school safety.

Notes

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1 Merging survey administrations increased coverage. In 2014, 41% of charter and 76% traditional public schools responded to the survey on the variables of interest. In 2015, 56% of charter and 73% of traditional public schools responded.

2 Instructional time is 50% online and 50% face-to-face.

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