School Closures Disproportionately Affect Disadvantaged Communities

By Noli Brazil, University of California, Davis

As public-school closures have increased in number across U.S. cities, opponents have argued that the closures bring many negative consequences, such as greater local crime rates. In a recent study of the 2013 Chicago mass school closure, during which 49 elementary schools were shut, I tested this claim. Looking at each school’s status after closure (vacant, repurposed, or merged with an existing school), I found that vacancy and repurposing of a non-school were associated with decreased crime. In contrast, merging a closed school with an existing school was associated with increased crime. The vacancy and repurposing effects were concentrated in the 75-meter area surrounding the school, and disappeared after a year. The student-merger effect persisted over time, however, and across larger spatial scales. My results suggest that the relationship between closure and neighborhood crime is not straightforward. Given that closed schools are often located in poor, minority neighborhoods, policy makers should prioritize proper planning and cost-benefit analysis to ensure that disadvantaged communities do not experience unnecessary increases in hardship.

In 2013, Chicago experienced the largest mass school closure in U.S. history when it closed 49 of its elementary schools—most of which were located in disadvantaged neighborhoods. By Noli Brazil, University of California, Davis

Measuring the Impact of School Closures on Crime

In my study, I estimated the effects of school closures on crime using Chicago’s 2013 mass school closure as a case study. 1 In addition to representing an important case deserving study in and of itself given its historic size, Chicago’s mass closure offers several attractive methodological features, including the formation of a valid comparison group based on the schools considered but not selected for closure, the significant and unexpected shock of the closures on their communities due to inadequate community engagement during the district’s planning and execution of the closure process, and the five-year moratorium on school closures that the district instituted after 2013.

I used a monthly panel of crime counts between 2008 and 2018 in order to test the differential impact of school vacancy, repurposing, and merger on neighborhood crime. I collected crime incident data from Chicago’s online open data portal. The data include the type of crime as classified under the Uniform Crime Reporting Program, geographic location, and date of each crime. A total of 282,373 violent and 2,898,693 nonviolent crimes are included in the 10 years covered by the data.

I constructed a data set containing monthly crime for the neighborhoods surrounding public elementary schools on the February 2013 list. My definition of a neighborhood was a circular buffer of radius r surrounding each elementary school. I tested several radii, specifically r = 75, 150, 300, and 450 meters. I then spatially joined crime data to each buffer.

Neighborhoods with Merged Schools Saw Biggest Rise in Nonviolent Crime

First, I found that merged school locations experienced an increase in nonviolent crime at the 75-meter scale. Second, I found that the increase, although declining in magnitude, persisted at the 150-meter (22 percent increase in crime) and 300-meter (4 percent) scales. These findings support arguments offered by

Key Facts

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The effects of these closures on local crime rates were much wider than previously thought, particularly when a closed school was merged with a non-closed one.

Adequate community engagement, cost-benefit analysis and long-term planning are all crucial to mitigating the negative consequences of public-school closures.


teachers, students, parents, and public-school advocates that closures increase local crime through the merger of student populations. The persistence of the effect across larger distances suggested explanatory mechanisms such as commuting across gang boundaries that went beyond something about the area immediately surrounding the school. Third, I found an opposite effect (a 35 percent decrease in nonviolent crime) in the 75-meter areas surrounding schools that were vacant. However, this effect was not significant at larger spatial scales. Fourth, neighborhoods surrounding schools that were repurposed into a non-school experienced a 33 percent decrease in nonviolent crime. Similar to the vacancy effect, the decrease disappeared after the 75-meter radius.

I also tested the persistence of the effects over time (Figure 1). There was a 34 percent decrease in violent crime in the first year in the 75-meter areas surrounding schools that were vacant.

The results from my analysis carry several implications. First, contrary to claims made by opponents of school closures, building vacancy was associated with a decrease in local violent and nonviolent crime. I also found that nonviolent crime decreased when a school building was repurposed into a non-school. This decrease may be due to the removal of students from the area, who act as both potential offenders and victims of crime. This explanation makes sense since the effects were found only in the neighborhood surrounding the school and in the short term, persisting for less than two years for nonviolent crime and less than a year for violent crime. My results indicate that public officials should be proactive in repurposing closed school buildings, ideally establishing a plan well before schools officially close.

Second, I found that neighborhoods with schools that merged two or more student communities experienced an increase in nonviolent crime that persisted beyond one year across spatial scales. This suggests that the land use effects of school closure are spatiotemporally localized, whereas the student merger component has much broader community-wide consequences. Third, I found that closures impact not just the neighborhoods surrounding the schools that were officially closed but also the neighborhoods surrounding the non-closed schools that received displaced students. Taken as a whole, my findings suggest that the effects of closures are much wider than previously conceived.

Policy makers and local officials conducting cost-benefit analyses of school closures should take these broader factors into account—especially given that such closures disproportionately affect disadvantaged and minority communities.

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This negative effect was significant, but decreased in magnitude at larger spatial scales. I also found a decrease in nonviolent crime, but only at the 75-meter scale. This effect persisted after a year (36 percent decrease), becoming smaller in the second year (28 percent), and disappearing thereafter. These results indicate that the effects of vacancy on crime are not only spatially localized but short term.

Neighborhoods with merged schools experienced no change in violent crime across all time periods and buffer sizes (Figure 1). In contrast, I found a persistent increase in nonviolent crime across time at the 75-, 150-, and 300-meter scales. Nonviolent crime increased by 52 percent in the first year after merger at the 75-meter scale. This increase diminished in the second year (32 percent) but increased thereafter (46 percent). At the 150-meter scale, neighborhoods with a merged school experienced a 32 percent increase in nonviolent crime in the first year of merger. The increase was 18 percent and 20 percent in the second year and thereafter, respectively. I also found a persistent albeit smaller increase in nonviolent crime at the 300-meter buffer. Neighborhoods within 300 meters of a merged school experienced a 7 percent and 4 percent increase in nonviolent crime in the first and second year after merger, respectively. Overall, school merger exhibits more expansive spatiotemporal effects on nonviolent crime than building vacancy.

Analysis, Planning and Engagement All Essential

Closures impacted not just neighborhoods surrounding schools officially closed but also neighborhoods surrounding non-closed schools that received displaced students.

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