

Opening Statement and Testimony of

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on

"Thoughts and Prayers Are Not Enough: How Mass Shootings Harm Communities, Local Economies, and Economic Growth"

before the

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Subcommittee Chair Green, Ranking Member Emmer, and Members of the Subcommittee, thank you for inviting me to testify before you today. I am Ruchi Singh, Assistant Professor of Real Estate at the Terry College of Business at the University of Georgia; Post-Doctoral Fellow at the Homer Hoyt Institute; a Research Affiliate at the IZA Institute of Labor Economics; and a Co-Editor of the Journal of Real Estate Finance and Economics. I speak only for myself today.

My academic research since 2016 has focused on real estate economics and the economics of crime. I will be drawing today on my own research and on the evidence from the broader academic literature on the effects of mass shootings and gun violence. It is extremely important to understand the negative effects that such incidents have, so that steps can be taken both to reduce the likelihood of such incidents and to provide appropriate support to those who suffer the impacts.

I am honored to contribute to the discussion on this important topic today.

Background

The number of mass shootings is high in the United States compared to that in other developed countries.¹ The number of such episodes has risen in the past few years. The database of known shootings in the United States maintained by the Gun Violence Archive² shows that 700 mass shootings³ occurred in 2021; this is an increase from the 611 mass shootings that occurred in 2020, and a significant rise from the 417 mass shootings that occurred in 2019. There have been more than 340 mass shootings so far this year (as of July 17, 2022).

My comments today will focus specifically on the context of schools. I will first talk about the impact of such mass shootings that have occurred at schools. I will then discuss a certain kind of policy that may reduce violent crimes near schools, and mention some things to think about in considering policies to reduce school shootings.

¹ <https://www.bloomberg.com/graphics/2022-us-gun-violence-world-comparison/> (last accessed July 16, 2022).

² <https://www.gunviolencearchive.org/>

³ The Gun Violence Archive classifies an incident as a mass shooting if four or more people are injured or killed – not including the shooter.

Let me begin by sharing some statistics on incidents of firearm discharge on school grounds. Data collected by Everytown for Gun Safety show that 347 incidents of gunfire occurred on school grounds⁴ of an elementary, middle, or high school in the United States between 2013 to 2019. These data show that 270 people were wounded and 129 people were killed as a result of these gunfire incidents.⁵ In addition, a significant number of students who were not wounded or killed were exposed to these incidents, which could have had a negative impact on their mental health. The Washington Post estimated that as of May 2022, around 311,000 students at 331 schools have been exposed to gun violence at their schools during school hours since the 1999 Columbine incident.

Effect of mass shootings in schools on house prices

I am currently working on a paper with Dr. Juan S. Muñoz-Morales of the IÉSEG School of Management studying the effect of mass shootings in schools on residential real estate prices.⁶ We define mass shootings using the definition adopted by the Stanford Mass Shooting of America data project.⁷ In our paper, a mass shooting is defined as a gun-related episode of violence with three or more victims (not necessarily fatalities), not including the shooter; it is an episode that does not involve gangs, drugs, or organized crime. We examine eleven incidents of such mass shootings in schools that took place across the United States from 1998 to 2014.

A large body of academic research finds that crime, in general, negatively affects real estate prices in the area.⁸ This is likely to be unsurprising to most people because households might prefer to stay away from areas with high levels of crime to avoid becoming victims of such crimes in the future, and to avoid the associated losses they would incur. However, a mass shooting incident at school is extremely unlikely to be repeated in the same area. Nevertheless, we find that house prices in the school attendance area of the affected school decline after such an incident. This

⁴ This refers to every time a firearm discharges a live round inside or into a school building or on (or onto) a school campus or grounds. Incidents in which a person brought a gun into a school but did not discharge it are not included.

⁵ <https://everytownresearch.org/report/preventing-gun-violence-in-american-schools> (last accessed July 16, 2022).

⁶ Muñoz-Morales, J., and Singh, R., (2022) “Do School Shootings Erode Property Values?” (Work in Progress)

⁷ Different academic papers often adopt slightly different definitions of mass shootings.

⁸ See, for instance, Thaler (1978), Lynch and Rasmussen (2001), Gibbons (2004), Pope (2008), Linden and Rockoff (2008), Ihlanfeldt and Mayock (2010), and Pope and Pope (2012).

decline could result from the desire of the parents of affected students to move out of the area, and from homebuyers' reluctance to move into these areas either because of (1) an irrational, negative association with the school in their minds, or (2) a rational and correct anticipation of a lower quality of educational experience for at least the next few years. We estimate the magnitude of this house price decline to be 2.4 percent on average over a four-year period following mass shootings at schools.⁹ We also find suggestive evidence that the negative impact on house prices starts to fade away around seven years after the incident.

Our findings complement that of Gourley (2019), who estimates the effect of the 1999 Columbine shooting incident on housing values. Gourley documents that house prices in the Columbine catchment area declined by 5.7 percent compared to other properties in the rest of Jefferson County in the first year after the Columbine shooting.

Impact on students of exposure to school shootings

A number of academic studies show that students are negatively impacted in various ways after being exposed to shooting episodes at school. These studies did not restrict their attention only to mass shootings. For instance, a recent study (Cabral et al. 2021) found exposure to a school shooting incident led to higher rates of absenteeism and an increased probability of students repeating grades over the following two years. Such students also suffered negative impacts in the long term; they were less likely to graduate from high school, less likely to enter college, and less likely to graduate from college. Furthermore, they also had lower earnings, and they were less likely to be employed at the ages of 24 to 26. They also show that after such incidents, these schools experience a higher turnover of teachers and teaching support staff.

Other researchers have also found similar evidence of lower test scores and increases in absenteeism as a result of exposure to school shootings. For instance, Beland and Kim (2016) find that fatal shootings in high schools significantly decrease enrollment of students in grade 9 (which is the high school entrance grade) and test scores, and Levine and McKnight (2021) find that exposure to school shootings leads to lower test scores and an increase in chronic absenteeism (an

⁹ Because we are still working on this paper, we caution that this estimate is subject to revision.

absence rate of greater than 10 percent). Moreover, Rossin-Slater et al. (2020) find that the use of antidepressant medications increases after such incidents in the areas where the affected schools are located. Finally, Levine and McKnight (2021) show that shootings lead school districts to spend more money on support services (which include counseling and security but may also represent other services).

More broadly, several studies have examined the effect on students of exposure to violent crimes – not necessarily involving guns. These studies also find adverse effects on short- and long-term outcomes of students who have been exposed to violent crimes.¹⁰

Reducing exposure of students to violent crime

In our paper, "Do more eyes on the street reduce crime? Evidence from Chicago's safe passage program" (*Journal of Urban Economics* 2019), Dr. Daniel McMillen, Dr. Ignacio Sarmiento, and I examine one potential solution for reducing crime: placing civilian guards around schools. Specifically, we analyze the effectiveness of the Chicago Public School Safe Passage program, which draws upon parents and other adults from the local community to act as civilian guards around schools during arrival and dismissal times. We find that the presence of "more eyes" on the street reduced crime, especially violent crime. Moreover, the program resulted in improved school attendance. Our cost-benefit analysis suggests that this program is a cost-effective way of reducing crime around schools. While we did not show any direct evidence of such a program on school shooting incidents, our work does imply that such programs are likely to reduce the exposure of students to violent crimes in general.

It is important to recognize that school shooting incidents are of different types. More students are exposed to gun violence at their schools because of personal attacks and crime-related shootings

¹⁰ For instance, Burdick-Will (2013) finds that increase in violent crime in schools negatively affects learning and has an adverse effect on test scores. Schwartz et al. (2021) find that exposure to violent crime results in lower test scores, and that the negative effect increases with exposure. Laurito et al. (2019) find that students have lower test scores following exposure to violent crime if they attend schools perceived as being less safe or if they have a weak sense of community. Grogger (1997) shows that violence in schools reduces the likelihood that a student will graduate from high school and the probability that a student will attend college. Billings and Hoekstra (2019) show that an increase in school and neighborhood crime-prone peers increases arrest rates at ages 19 to 21.

than indiscriminate shootings, although the latter get more media and public attention (Levine and McKnight 2020). While community policing is likely to reduce crime-related shootings, this may have a limited effect on reducing indiscriminate shootings.¹¹ Thus, when designing policies intended to prevent school shootings, policymakers should consider multi-pronged approaches.

¹¹ Levine and McKnight (2020) highlight this point.

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