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## Have U.S. Gun Buyback Programs Misfired?

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here are 1.2 guns for every person in the United States, and the total number of firearms in circulation is estimated to be over 393 million. Gun violence is the leading cause of death among young men aged 15–19, and firearms are involved in 51 percent of completed suicides and 73 percent of all homicides. The link between the supply of firearms and gun violence has been the subject of intense debate among policymakers and academics studying the economics of crime. To limit the supply of firearms in circulation, a number of U.S. cities have implemented gun buyback programs (GBPs). GBPs use public funds to purchase civilians' privately owned firearms. We examined the effect of GBPs and found no evidence that they reduce gun crime.

The first GBP was launched in Baltimore in 1974, when the city paid anyone who turned in a firearm to a local police station \$50 (\$259 in 2019 dollars), after which the gun was destroyed. There were no questions asked of those who turned in their guns, and no limits were placed on the type of firearm that could be submitted to authorities. In total, the GBP collected approximately 13,500 firearms, 8,400 of which were handguns, and cost taxpayers approximately \$660,000. Reports suggested that firearms were turned in by individuals who were afraid someone would use the firearm in anger or feared it would be stolen. However, homicides and firearm-related assaults rose by over 50 percent following the Baltimore GBP, raising concerns among policymakers about its effectiveness.

After the Baltimore experiment, dozens of U.S. cities held GBPs, including a flurry of buybacks in 2021. For instance, from April to May 2021, GBPs were held in Reading, Pennsylvania; Albany, Georgia; Canton, Ohio; Philadelphia, Pennsylvania; Birmingham, Alabama; Rochester, New York; and Albuquerque, New Mexico. GBPs have generally been funded by government dollars at the state and local levels rather than the federal level. However, following mass shootings in El Paso, Texas, and Dayton, Ohio, in 2019, 12 members of Congress cosponsored the Safer



Neighborhoods Gun Buyback Act of 2019 (H.R. 1279, 116th Congress), which would have permitted the Bureau of Justice Assistance to issue grants to state and local governments to fund GBPs. While congressional Democrats did not pursue this legislation during the Trump presidency, the May 2021 introduction of the Buyback Our Safety Act (H.R. 3143, 117th Congress) to establish a federally funded gun buyback program suggests that this issue remains salient.

Proponents of GBPs, including former New York governor Andrew Cuomo, former president Bill Clinton, and President Biden, argue that GBPs may be an important tool in the fight against gun crime and firearm-related violence. Some proponents, including Biden and Senator Bernie Sanders (I-VT), have called for a federal GBP that specifically targets assault weapons. Opponents, including the National Rifle Association, argue that GBPs will do little to reduce gun crime because potential criminals are unlikely to participate in such programs. In March 2020, the Michigan House of Representatives passed House Bill 5479, which would have banned the use of state funds for local gun buybacks. Similar legislation has recently been introduced in Wyoming.

The theoretical effect of a GBP on firearm-related violence is unclear. GBPs may reduce gun crime if criminals who would otherwise commit firearm-related crime sell their firearms to local governments and eschew criminal activity. Moreover, GBPs may also reduce gun crime if law-abiding individuals sell their firearms, reducing the supply of guns available for theft by potential criminals. Finally, a reduction in the supply of firearms could reduce firearm-related suicides if such acts are impulsive and influenced by the ease of firearm access at a time of high emotion.

On the other hand, GBPs may fail for a number of reasons. First, if the price that city governments are willing to pay gun owners is generally less than the value of the firearm, a relatively small number of firearms may be collected. Second, if criminals believe that law-abiding citizens (and potential victims) are relinquishing their firearms, they may be more willing to commit gun crimes following a GBP. Moreover, if GBPs induce owners to turn in older firearms that are not well-functioning and the income gained from the sale of the firearm is used to purchase newer, more effective guns, firearm-related violence could rise. Finally, repeated GBP programs may permanently lower the cost of owning a firearm, also leading to an increase in newer firearm purchases.

While policymakers are fiercely debating whether to implement GBPs, little is known about their effectiveness. Our research is the first to present credible causal estimates on the effects of GBPs in the United States. We highlight three key findings. First, using data from the 1991–2015 National Incident-Based Reporting System, we found no evidence that GBPs are effective at deterring gun crime in either the shortor long-run. The precision of our estimates is such that we can rule out decreases in gun crime of 1.2 percent or more in the 12 months following a GBP and 2.3 percent or more one year after a GBP and beyond. Second, in the two months following a GBP, we detected a small increase in gun crimes with no corresponding change in nongun crimes. This finding is consistent with a possible criminal response to perceptions about the likelihood of self-defense among law-abiding gun owners. Finally, turning to data from the National Vital Statistics System, we found no evidence that GBPs affected firearm-related suicides or homicides.

We conclude that GBPs are an ineffective policy strategy to reduce gun violence, a finding consistent with descriptive evidence that firearm sales prices are set too low by cities to appreciably reduce the local supply of firearms, most GBP participants are drawn from populations with low crime risk, and firearms sold in GBPs tend to be older and less wellfunctioning than the average firearm.

## NOTE

This research brief is based on Toshio Ferrazares, Joseph J. Sabia, and D. Mark Anderson, "Have U.S. Gun Buyback Programs Misfired?," National Bureau of Economic Research Working Paper no. 28763, December 2022.



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