

No. 22-976

In the Supreme Court of the United States

MERRICK B. GARLAND, ATTORNEY GENERAL, ET AL.,

Petitioners,

v.

MICHAEL CARGILL,

Respondent.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

**BRIEF OF *AMICI CURIAE* AMERICAN
MEDICAL ASSOCIATION, AMERICAN
ACADEMY OF PEDIATRICS, AMERICAN
COLLEGE OF PHYSICIANS AND AMERICAN
COLLEGE OF SURGEONS IN SUPPORT
OF PETITIONERS AND REVERSAL**

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INTEREST OF AMICI CURIAE

The American Medical Association (“AMA”) is the largest professional association of physicians, residents and medical students in the United States. Its purpose is to promote the art and science of medicine and the betterment of public health. Substantially all U.S. physicians, residents and medical students are represented in its policy-making process through state and specialty medical societies and other physician groups seated in its House of Delegates. The AMA joins this brief on its own behalf and as a representative of the Litigation Center of the American Medical Association and the State Medical Societies. The Litigation Center is a coalition of the AMA and the medical societies of each state and the District of Columbia. Its purpose is to represent the views of organized medicine in the courts.¹

The American Academy of Pediatrics represents approximately 67,000 pediatricians nationwide. It is dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults.

The American College of Physicians (“ACP”) is the largest medical specialty organization in the United States. Its members include 161,000 internal medicine physicians, related subspecialists, and medical students. Internists apply scientific knowledge and clinical expertise to the diagnosis, treatment, and compassionate care of adults across

¹ This brief was not authored in whole or in part by counsel for any party. No person or entity other than *amici curiae*, their members, or their counsel made a monetary contribution to the preparation or submission of this brief.

the spectrum from health to complex illness. ACP and its physician members lead the profession in education, standard-setting, and sharing knowledge to advance the science and practice of internal medicine.

The American College of Surgeons (“ACS”) is a scientific and educational association of more than 84,000 surgeons founded to improve the quality of care for surgical patients. Members are indispensable leaders in the provision of care to injured patients.

Amici respectfully submit this brief to offer their unique perspective, as an association of healthcare providers, on the compelling need to uphold 26 U.S.C. 5845(b), which prohibits the sale and possession of bump stock devices because they are “machineguns” under the statute.

Amici’s members have first-hand knowledge of the deaths and injuries inflicted by military-style assault weapons and bump stocks that transform them into automatic firearms. Their rapid-fire bullets cause enormous human carnage, destruction and chaos. They result in death on a large scale and cause gruesome injuries. Everyone is affected. Anyone can be a victim. The bullets do not discriminate.²

² In the 1960s, at the request of the U.S. military, ArmaLite created the first prototype of the AR-15, after studies showed its potential to cause maximum carnage without skilled marksmanship. Louis Klarevas, *Rampage Nation: Securing America from Mass Shootings* 196, 207 (2016); *Semiautomatic Assault Weapons—What Are They? What’s So Bad About Them? Modern Descendants of the STG-44 on America’s Streets*, Violence Policy Ctr. (2003),

Many of *amici's* members devote their lives to treating babies, children, parents, spouses, and other loved ones and friends in the most high-risk situations, when they are most vulnerable. The lives of firearm violence victims are placed in the hands of *amici's* members. The emergencies and trauma never end for *amici's* members.

Amici's members understand the importance of protecting our constitutional rights. They include many individuals who grew up with and value the recreational use of firearms or choose to own a firearm for self-defense.

But *amici's* members share the strong conviction, informed by their healthcare work and research, that allowing civilians to purchase and own bump stock devices would increase the deadly capability of semi-automatic weapons by converting them into even more destructive machineguns suitable for military purposes. Firearms modified by bump-stocks have no place in a civilized society.

Amici respectfully submit that this is a case in which this Court's decision will directly affect whether

<http://www.vpc.org/studies/hosefive.htm>. The military renamed the AR-15 the M16 and began using it for combat in the Vietnam War. *Kolbe v. Hogan*, 849 F.3d 114, 124–25 (4th Cir. 2017), *abrogated on other grounds by New York State Rifle & Pistol Ass'n v. Bruen*, 597 U.S. 1 (2022). After the war, the military's need for the M16 declined and ArmaLite began marketing the AR-15 to civilians as a weapon for hunting and self-defense. *Klarevas*, at 192, 225. An AR-15 modified with a bump stock can fire 600-700 rounds per minute, just like an M16 machinegun. *Bevis v. City of Naperville, Ill.*, 85 F.4th 1175, 1196 (7th Cir. 2023).

countless people will live or die. The stakes could hardly be higher.

**STATEMENT OF THE CASE AND SUMMARY
OF ARGUMENT**

The issue presented is whether a bump stock device is a “machinegun” as defined in 26 U.S.C. 5845(b). The Court should answer “yes” and reverse the decision below.

Point I presents the firsthand experiences of some of *amici*’s members who treat victims of firearm violence. Many of these members have been responsible for the treatment of patients who were shot with military assault weapons in some of the most infamous mass shootings, including at Aurora, Columbine, Las Vegas, Newtown, Oak Creek and San Bernardino.

Point II explains why semi-automatic weapons with bump stocks are a critical public health hazard, and prohibiting bump stocks saves lives.

Point III shows that bump stock devices are “machineguns” as defined in 26 U.S.C. 5845(b).

ARGUMENT

I. *AMICI'S* PHYSICIAN MEMBERS HAVE FIRSTHAND KNOWLEDGE OF THE DEADLY CONSEQUENCES OF SEMI- AUTOMATIC WEAPONS AND BUMP STOCKS

A. Dr. William Begg

Dr. Begg received his M.D. from New York Medical College in 1989 and completed his residency in emergency medicine at The Johns Hopkins Hospital in 1992. He has also worked in an army base community in upstate New York. Dr. Begg has seen and treated victims of military assault weapons.

Dr. Begg has been an emergency physician at Danbury Hospital in Connecticut since 1993 and is now the Endowed Chair of Emergency Medicine at Danbury and New Milford Hospitals. He is Chairman of the Board of Directors of the Newtown Health District. He is also a Clinical Assistant Professor in the Department of Surgery of the University of Vermont. In 2016, he received the Dr. Mark Quigley Award for Connecticut EMS Physician of the Year.

Dr. Begg was the emergency physician on duty in Danbury Hospital during the morning of the Sandy Hook mass shooting. He was also the EMS Medical Director in contact with EMS personnel at Sandy Hook who were deciding how to care for the victims. Most of the child victims never made it to the hospital because of the horrific injuries to their little bodies. Each child endured 3 to 11 AR-15 gunshot wounds. Because the AR-15 bullets explode in the body, organs

are obliterated, leaving nothing to resuscitate. An AR-15 equipped with a bump stock causes even greater harm.

Dr. Begg believes gun violence is a public health issue, and bump stock devices should not be permitted to make assault weapons even more dangerous and lethal.

B. Dr. Cherisse Berry

Dr. Berry is Division Chief of Acute Care Surgery and Associate Professor of Surgery at NYU Grossman School of Medicine in New York and Medical Director of the inpatient surgery unit at NYU Langone Health. An accomplished trauma and acute care surgeon scientist who recently received R01 funding from the National Institutes of Health for her work in health equity within the pre-hospital trauma system, she has received numerous awards and published 93 peer-reviewed articles and book chapters while maintaining a full-time clinical practice at the largest level one trauma center in Manhattan. Dr. Berry strongly supports reasonable regulations on the ownership of bump stocks that transform semi-automatic firearms into military-grade machine guns.

Dr. Berry has seen far too many young people die excruciating deaths as a result of inexplicable acts of firearm violence. People do not get up in the morning with the thought that they will be shot that day. But when individuals are shot day after day, it is incredibly difficult to witness so much death and to have to communicate each one to a devastated family.

Dr. Berry has witnessed the catastrophic damage that a single bullet can wreak on the human body. Individuals shot in the skull generally die quickly. If they survive, they tend to develop brain damage with a range of permanent complications, such as an inability to walk, eat or communicate. Some become completely dependent on machines for the rest of their lives.

If the bullet hits the spine, the victim is too often rendered quadriplegic or paraplegic. He cannot move. He may develop back ulcers. He is unable to urinate. If the bullet strikes high enough, the brain may be unable to send signals to the respiratory system. Every breath requires the aid of a ventilator. If an individual is shot in a limb and a nerve, artery, or vein is hit, it may cause a loss of function and require the amputation of the limb.

The most common gunshot wounds Dr. Berry treats are in the chest and abdomen, where multiple organs may be damaged. An individual shot in the heart may die of a massive hemorrhage or cardiac tamponade that causes so much blood to leak into the pericardium or the sac that covers the heart, that the heart is crushed by the pressure and cannot pump. If a bullet hits a major artery, the victim may die before he arrives at the hospital. If the lung is hit, blood may fill the chest, requiring evacuation with a chest tube or removal of the lung itself. Gunshot wounds to the liver can also be lethal because they can cause excessive bleeding. To control the bleeding and prevent the patient from dying of shock, the affected arterial blood vessels must be constricted with coils. That can cause necrosis and require removal of part of

the liver. If a victim is hit in her intestines, she may require an ostomy.

Some abdominal gunshot wounds cause the patient to become so unstable that the initial operation cannot be finished. Surgeons do what they can to stop the bleeding in a damage control approach and then send the patient—with her abdomen still open—to the ICU, where she is further resuscitated and warmed to prevent ongoing bleeding from trauma induced coagulopathy. Her bowels may swell, physically preventing closure of the abdomen; a mesh is used to cover it. The patient needs rehabilitation for weeks and eventually requires an abdominal wall reconstruction.

C. Dr. Kathleen Clem

Dr. Clem received her M.D. from Loma Linda University in 1989. She completed her residency in emergency medicine at Loma Linda, and served as chief resident in 1993. Dr. Clem is currently an emergency physician at Dartmouth-Hitchcock Medical Center and a Professor at the Geisel School of Medicine at Dartmouth University.

From 1999 to 2007, Dr. Clem was an Associate Professor and the Chief of the Division of Emergency Medicine in the Department of Surgery at Duke University. From 2007 to 2016, she was the Chair of the Level 1 Trauma Center Emergency Department at the Loma Linda University Medical Center and a Professor of Emergency Medicine and Pediatrics at the Loma Linda University School of Medicine. Dr. Clem received a Distinguished Faculty Award from Duke University in 2007 and a Hero of Emergency

Medicine Award from the American College of Emergency Physicians (“ACEP”) in 2008.

Dr. Clem was on duty as the Department Chair of Emergency Medicine of the Loma Linda Emergency Department on December 2, 2015, when Syed Rizwan Farook and Tashfeen Malik, armed with AR-15 style military assault weapons and 9-millimeter semiautomatic handguns entered the Inland Regional Center in San Bernardino, California, fired approximately 150 bullets, killed 14 people and wounded 21 others. When the most seriously injured victims of the San Bernardino mass shooting were brought into Dr. Clem’s hospital, she was in charge of ensuring that the appropriate trauma teams were in place and oversaw the treatment. She saw that the awful effects of the firing of military assault weapons were not confined to the victims who were shot. Families, hospital staff and the entire community were deeply affected. Earlier shootings in San Bernardino did not create anything close to the type of fear and concern for safety that the entire San Bernardino community felt after the mass shooting. The death toll would have been even higher had the shooter’s guns been equipped with bump stocks.

Dr. Clem’s husband owns guns and uses them for target shooting. Those guns are vastly different from the semi-automatic weapons and other firearms that bump stocks can transform into machineguns. Those weapons are not designed for sport or self-defense. They are weapons of war and have no place in civilian hands.

D. Dr. Joanna Cohen

Dr. Cohen is a pediatric emergency physician at Johns Hopkins Children's Center and an Associate Professor of Pediatrics at The Johns Hopkins School of Medicine. She previously worked as a pediatric emergency physician at Children's National Hospital in Washington, D.C.

In the last year, Dr. Cohen has treated more children who have been shot than at any time in her career. She has had patients who sustained spinal cord and other devastating injuries from gunshots. They are now (and likely forever) wheelchair bound, dealing with complications like infections. They must be cared for by family members whose lives are also forever changed by the additional burden and the psychological injuries.

For Dr. Cohen and her husband (who is also an emergency physician), the appalling epidemic of firearm violence they witness every day makes them perpetually anxious for their children. They live in the city and are proud to be raising "city kids" who go outside and are active, not sheltered. But the firearm violence is everywhere—including in the places where their children (and many other children) live and play. So now, when her husband hears that an incoming patient is a shooting victim, he asks "where?," and then tries to determine whether his children are there.

Dr. Cohen's personal experience treating victims of firearm violence has led her to believe that automatic weapons, or any parts which may convert a weapon

into an automatic weapon or machinegun have no place in a civilized society.

E. Dr. Christopher Colwell

Dr. Colwell, a California resident, received his M.D. from the Geisel School of Medicine at Dartmouth in 1992. He completed his residency in emergency medicine at Denver Health Medical Center in 1996. He has worked in trauma centers continually since then, in Michigan, Denver, and San Francisco. In Denver, he worked at Denver Health, one of the top referral centers for trauma in Colorado and the Western United States.

Dr. Colwell is now the Chief of Emergency Medicine at the Zuckerberg San Francisco General Hospital and Trauma Center, which is the only level one trauma center for the City and County of San Francisco. He is also a Professor and Vice Chair of the Department of Emergency Medicine of the UCSF School of Medicine.

Dr. Colwell was the physician on scene on April 20, 1999, after Eric Harris and Dylan Klebold entered Columbine High School in Littleton, Colorado, with semi-automatic assault pistols and other weapons, killed thirteen people and wounded twenty others before killing themselves. At Columbine, he pronounced each of the 13 victims dead and treated 17 or 18 of the more than 20 victims who survived. Later, he was called to the Denver Health Hospital to work on the night of the Aurora shootings. He treated victims who had shattered limbs and torn out chests.

Dr. Colwell has observed the dramatic difference between the damage caused by a .22 caliber pistol and an assault weapon. An assault weapon, especially one equipped with a bump stock, inflicts enormous, absurd, and mind-boggling injuries, including heads blown open. It causes mass destruction and can devastate numerous people in a matter of seconds, including unintended targets as bullets pass through walls and cars. Because a shooter using an assault weapon equipped with a bump stock can fire multiple bullets rapidly, the shooter can inflict injuries before anyone has time to react. If someone wants to cause mass injuries and death at a large gathering — such as a school, a mall, a parade or a sporting event — an assault weapon and bump stocks are the weapons of choice. Because of this potential for enormous destruction, Dr. Colwell believes bump stocks are correctly considered machineguns and should not be in the hands of civilians.

F. Dr. Marie Crandall

Dr. Crandall, a Florida resident, received her M.D. from the University of California, Los Angeles, and completed her residency in surgery at Rush University Medical Center in 2001. In 2003, she completed a fellowship in surgical critical care at the University of Washington/Harborview Medical Center. She has also received a Master's in Public Health from the University of Washington.

Dr. Crandall has more than 20 years of experience as an academic trauma surgeon. She spent the first 12 years of her career at Northwestern University in Chicago, and is currently the Division Chief of Acute

Care Surgery and Professor of Surgery at the University of Florida College of Medicine in Jacksonville. Dr. Crandall has authored or co-authored more than 250 peer reviewed research publications and is a nationally-recognized scholar and advocate in the area of firearm injuries.

Dr. Crandall has operated on gunshot victims, including victims of semiautomatic rifles, some outfitted with bump stocks, in Chicago, Los Angeles, Seattle, and Jacksonville, Florida. Although the number of these injuries dropped during the period the federal assault weapons ban was in effect, after the ban terminated the incidence soared and exceeded pre-ban levels. In 2021, there were 48,830 firearm-related deaths in the United States, the highest on record. Just over half were suicides, but more than 20,000 were firearm homicides. National statistics show mass shootings are increasing, and increasing proportions involve high capacity magazines and high velocity weapons.

Dr. Crandall has seen that being shot by an AR-15 is like being blasted with a cannon. A bullet fired by an AR-15 has enormous velocity and kinetic energy (equal to the mass times the velocity squared) because it travels at a rate of 1000–2000 meters per second, as compared to a bullet fired by a .22 caliber weapon which travels at a rate of 200–300 meters per second. This increased energy causes a shockwave that damages the tissue near the bullet's trajectory and creates a large hole in a victim's body. Surrounding blood vessels are damaged even if they are not hit by the explosive force of the missile. When a shooter

utilizes a bump stock it increases the pace at which bullets are fired.

Dr. Crandall believes there is no civilian or law enforcement need for semiautomatic rifles to fire even more rapidly. Easy access to bump stocks contributes to an already lethal weapon's lethality. Our society should not become inured to their horrific effects.

G. Dr. Stephen Hargarten

Dr. Hargarten is the Founding Director of the Comprehensive Injury Center at the Medical College of Wisconsin ("MCW"), where he is a Professor of Emergency Medicine and previously served as Director of the Firearm Injury Center. As one of the nation's most experienced and accomplished professionals in the field of firearm injury prevention, he believes there is no question that allowing bump stocks—devices that make it easier to fire more bullets in a short period of time—will have the unacceptable consequence of more injuries and deaths.

Dr. Hargarten's career in emergency medicine spans five decades. He joined the faculty at the MCW in 1989 and served in SE Wisconsin's only level one trauma center at Froedtert Hospital. In August 2012, he was the primary emergency physician to treat individuals injured in the mass shooting at a Sikh temple in Oak Creek, Wisconsin. Wisconsin is a shall-issue concealed carry state. Wade Michael Page, the shooter, was able to pass a background check and legally purchase the 9mm Springfield XD(M) semi-

automatic pistol he used to murder six people and injure three others.

Dr. Hargarten is concerned about the availability of bump stocks that make weapons that are inherently lethal even more destructive. They are a clear and present danger to public health. Even good people can become intoxicated, feel provoked, experience despair, or act impulsively. If they are able to shoot bullets more rapidly the probability that impulsive conduct will result in more injuries and deaths increases exponentially.

Firearm violence is gruesome. Bullets tear and rip through tissue and organs inside the body. Typical shooting victims can lose three to five liters of blood before they arrive at the emergency department. If they arrive and have signs of life, they may survive but have to endure spinal cord injuries and lifelong disabilities. There are also cascading behavioral injury and social effects: over-activation of stress hormones, long-term psychological trauma for the victim and family members, and crippling medical expenses. To protect the public's health, Dr. Hargarten strongly supports upholding the reasonable regulatory ban on bump stocks.

H. Dr. Michael Hirsh

Dr. Hirsh, a Massachusetts resident, is the son of two Holocaust survivors who met in a displaced persons camp. He received his M.D. from Harvard Medical School in 1979 and completed his residency in general surgery at the Columbia Presbyterian Medical Center. After completing his residency, Dr. Hirsh worked in pediatric surgery, pediatric trauma

and pediatric critical care in Pittsburgh. He is currently a pediatric trauma surgeon in Worcester, Massachusetts and the Medical Director of the Department of Public Health in Worcester.

Dr. Hirsh is a former president of the Injury Free Coalition for Children and the Worcester District Medical Society. He is the Medical Director of the Department of Public Health for the City of Worcester, MA and the Principal Investigator for the Worcester Chapter of the Injury Free Coalition for Kids of Worcester.

When Dr. Hirsh's mentor, friend and colleague in his surgical residency was shot to death outside their hospital after leaving to go home to be with his ill pregnant wife, Dr. Hirsh decided he would dedicate a part of his life to addressing gun violence. He has worked to remove guns, including semiautomatic assault weapons, from his community through buyback programs.

Dr. Hirsh runs a gun buyback program in Worcester that has collected more than 4,100 firearms and given out at least 1,200 trigger locks. The program has cost \$215,000, which is less than the cost of treating 7 gunshot wound victims at a hospital. Dr. Hirsh ran a similar program in Allegheny County. It has collected more than 13,000 guns in 29 years.

Dr. Hirsh has treated patients shot with an AK-47, the Russian semiautomatic weapon that can fire multiple rounds at high velocity. When a patient is shot with this sort of weapon or any weapon that fires rapidly, it wreaks havoc not just in the bullet's path, but in a large surrounding radius. As the bullet spins

like a drill, nearby tissue implodes, and organs turn to “goo.” When a blood vessel is hit with a lower velocity bullet, there is a possibility of repair. But the “blast effect” around the trajectory of bullets rapidly fired from a semiautomatic weapon can almost never be repaired. Such bullets knock out swaths of tissue and can amputate limbs. Because the bullets are not easily stopped, they hit other structures and can sever the spine and transect the body. The bleeding caused by these weapons is also far greater.

Being shot by a military assault weapon, especially one equipped with a bump stock, is carnage in the truest sense of the word. The police describe a phenomenon in gang-related violence and mass shootings called “Spray and Pray” in which the shooter simply pulls the trigger and showers an area with bullets, hoping to hit as many victims as possible. The shooter does not need to have marksman skills to cause mass casualties. Adding a bump stock to a semi-automatic weapon converts it into an automatic weapon and increases the likelihood of mass casualty events. These weapons and bump stock devices should not be in civilian hands.

I. Dr. Thomas Lew

Dr. Lew is an assistant clinical professor of Medicine at Stanford University School of Medicine and a hospital medicine attending physician at Stanford Health Care Tri-Valley.

During Dr. Lew’s medical training, he observed surgeons try to repair the bleeding organs and frayed muscles of a victim of bullets fired from a semi-

automatic rifle. He remembers the horrifying image of shredded meat.

Today, Dr. Lew regularly treats victims of gun violence. Many are paralyzed from bullets to the spine. They are treated repeatedly for infections or blood clots. Many have mental health difficulties or post-traumatic stress disorder.

In 2017, Dr. Lew's parents and members of his family were on vacation in Las Vegas when a shooter in their hotel fired AR-15-style rifles modified with bump stocks into a music festival, killing 60 men, women, and children and wounding hundreds of others — the bullets did not discriminate. Dr. Lew's family members were just floors below the shooter. They barricaded themselves in a room with other vacationers. All they could do was pray and send terrified texts to Dr. Lew, who felt helpless.

As mass shootings proliferate in this country, no one is immune. We may become numb to the incessant killings. But Dr. Lew believes we cannot fall into the trap of accepting mass shootings as unavoidable American occurrences. Banning bump stocks was an important step in the right direction. The ban should continue before more lives are lost.

J. Dr. Robert McNamara

Dr. McNamara is a Professor and Chair of Emergency Medicine at the Lewis Katz School of Medicine at Temple University. Dr. McNamara is a member of the American Academy of Emergency Medicine ("AAEM"), the AMA, and the Pennsylvania

Medical Society. He has researched and published in the areas of trauma, asthma, and joint dislocations. Dr. McNamara has received numerous awards, including the Peter Rosen Award and the David K. Wagner Award by the AAEM. Dr. McNamara has spent his entire medical career caring for victims of gun violence.

Now Chair of Emergency Medicine at Temple University's School of Medicine he has witnessed the increase in gun violence. When Dr. McNamara was training, stabbings and shootings were roughly equal causes of penetrating trauma. Now shootings predominate. There are also more victims per shooting, due in no small part to the proliferation of assault style weapons, including weapons equipped with bump stocks. The number of bullet wounds per victim has multiplied from one to nine, ten, or even fifteen. It is a rare day that Dr. McNamara does not treat someone who has been shot. The commitment of physical and emotional resources to victims affects the quality of care the emergency department is able to provide to other patients. Gun violence victims are prioritized, and consume greater resources.

Dr. McNamara does not oppose gun ownership. He knows many physicians who own guns for hunting, sports, or self-defense. But he believes it is vital that the government be able to enact commonsense laws to protect public health. Outlawing bump stocks saves lives.

Not long ago, Dr. McNamara was working when a nine-year-old girl was brought in with a fatal shot to her head. The victim's immediate and extended family and the entire staff were devastated. Shortly

after her death, Dr. McNamara treated a young man who was shot in the neck. He was brought to the hospital without vital signs. Dr. McNamara and his team saved his life, but could not prevent an awful outcome. The young man is now a quadriplegic. He will remain on a ventilator and never lift a finger again. And he faces an extremely restricted life, repeated visits to the emergency department to treat infections and complications, and the knowledge that his condition is imposing an enormous burden on his family. Sadly, these incidents are not in any way unique.

Continuously witnessing young lives destroyed by gun violence exacts a heavy toll on emergency physicians. It takes enormous effort to avoid burnout. Among the most stressful situations for a doctor is having to inform a parent that her child has died suddenly. But that is so common that one of Dr. McNamara's colleagues, Dr. Naomi Rosenberg, authored a 2016 article for the New York Times on "How to Tell a Mother Her Child is Dead."

K. Dr. Patrick Reilly

Dr. Reilly is the C. William Schwab Professor of Surgery in the Division of Traumatology, Surgical Critical Care and Emergency Surgery at Penn Medicine. He is also the current president of the American Association for the Surgery of Trauma and past Vice-Chair of the ACS Committee on Trauma.

Dr. Reilly earned his B.S. from the University of Notre Dame in 1983 and his M.D. from Sidney Kimmel Medical College at Thomas Jefferson University in 1987. He completed his residency at the

Medical Center of Delaware and his fellowship in surgical critical care at the University of Pennsylvania. Dr. Reilly is board certified in surgery and surgical critical care.

Dr. Reilly has treated victims of gun violence for nearly three decades as a trauma surgeon in Philadelphia, including victims of mass shootings with assault-style weapons.

Dr. Reilly knows the toll that gun violence imposes not only on its victims but also on their families and healthcare providers. Firearm trauma is much worse than any other trauma. The impact on victims' families is sometimes as great as or greater than on the victims themselves. There is a room near the trauma center where families wait to hear the outcome of critical surgery. Some family members refuse to enter the room because they associate it with the heart-wrenching news of a loved one's passing they have received there before or heard about from others.

Secondhand trauma is also an unavoidable reality for doctors and nurses on the hospital's staff. The first time some surgeons meet their patients' families is to inform them their loved ones did not survive their gunshot wounds. In some ways, it is most painful emotionally to treat patients who survive initially only to succumb days or weeks later, because the doctors and staff develop a relationship with the patient, and the family grows hopeful, only to be crushed. Continually treating victims of gun violence without any available path to address the source of the epidemic has left some of Dr. Reilly's colleagues

feeling helpless. They become numb to it and suffer the symptoms of post-traumatic stress.

L. Dr. Jeffrey Sankoff

Dr. Sankoff, a Colorado resident, received his M.D. from McGill University Faculty of Medicine in 1994. He is an emergency medicine doctor at Denver Health Medical Center, the Level 1 trauma center for the Rocky Mountain region. He has treated victims of gun violence and is familiar with the AR-15.

Dr. Sankoff believes militarized weapons, such as the AR-15 and attachments to such weapons that increase the rate at which they can fire have no place in a civilized society and should not be sold to civilians. These guns are promoted based on false hypotheticals and appeals to emotion — that civilians need them for protection, including from the possibility of a tyrannical government. The advertising ignores the extraordinary societal costs of these weapons.

Giving people with risk factors for violence access to assault weapons creates particular threats. The medical literature describes a “weapons effect” — the physical presence of a firearm may incite aggressive cognition and provoke violent behavior. Beyond that, violence has infectious qualities. Individuals may be inspired to commit acts of violence to emulate previous killers — a concept known as identification. Assault weapons advertisements also activate people who are predisposed to but might not engage in violence if they did not have access to the weapons.

Assault weapons are the type of guns that bump stocks are commonly attached to. These weapons have considerable external costs because of their ability to inflict mass casualties and consume resources. The huge costs are transferred to others that are not the gun makers and sellers. For example, because the AR-15 and other military assault weapons are and may be used by civilians to cause enormous casualties, an ACEP task force is now considering how to import military strategies into the civilian sector to deal with the casualties. Adding bump stocks exacerbates the number of casualties. Active Shooter Plans (also known as Code Silver emergency response plans) designed to improve survival in the event of an active shooter, have proliferated since the killings at Aurora and Newtown, and have been implemented in virtually all healthcare environments. These plans require not only administrative time for development, but regular training, drilling and review by all employees in the hospital. The costs associated with these plans are enormous — hundreds of thousands of dollars for large institutions. Only a fraction is reimbursed through federal grants. The majority of these costs is borne by hospital operating budgets, generally derived from patient care.

M. Dr. Babak Sarani

Dr. Sarani is a Professor of Surgery and Emergency Medicine at George Washington University School of Medicine and the Director of Trauma and Acute Care Surgery at The GW Medical Faculty Associates. He treats firearm violence victims. He also conducts research, and has published

extensively concerning mass shootings. Dr. Sarani has reviewed the autopsy reports of many of the victims of the Route 91 Harvest Moon mass shooting with a bump stock device in Las Vegas, Nevada on October 1, 2017.

Dr. Sarani strongly believes that common sense gun laws prohibiting the use of bump stocks — which enable the firing of dozens of rounds within mere seconds — should be permissible. When people have the means to act lethally on impulse, the chances of injury and death increase exponentially. One of the key variables that impacts probability of death in a mass shooting is the rate at which the assailant can discharge the firearm. High capacity magazines and bump stocks allow the assailant to rapidly shoot multiple rounds without the intended victims having time to escape or hide before law enforcement can respond.

Tragically, Dr. Sarani has seen countless patients die in the emergency department and on the operating table. The most painful part of his job is informing families that their loved ones have bled to death or sustained brain injuries and cannot be saved. When the patients survive, they generally bear long-lasting physical and mental health consequences.

Dr. Sarani's research confirms that at least 50–60% of victims of public shootings die at the scene before a physician can even try to save them. Most of these deaths are due to gunshot wounds to the head and torso. The probability of being shot there increases with every round fired.

N. Dr. Martin Schreiber

Dr. Martin Schreiber is a Professor of Surgery and Chief of the Division of Trauma, Critical Care and Acute Surgery at the Department of Surgery at Oregon Health & Science University. He is also a Colonel in the U.S. Army Reserve who has been deployed to war three times. Dr. Schreiber has fired and treated wounds from handguns, assault weapons and other weapons.

Dr. Schreiber has observed that the AR-15 rifle has been used in at least 10 of the 17 most deadly mass shootings in America, including the school shootings in Uvalde Texas, Sandy Hook, Parkland Florida, and Las Vegas. The AR-15 causes much more damage to the human body than a handgun. When it is combined with a bump stock it becomes a machinegun, suitable for the battlefield.

Bullets fired from high-powered rifles have a velocity of about 3000 feet per second. They can injure massive amounts of tissue in the human body. They destroy the organs in the region where they travel. They create a large temporary cavity. When combined with bump stocks, and fired in quick succession, the kinetic energy imparted to the bullets makes the effects even more lethal. When the bullets hit the central portion of the body, if the victim is not wearing personal protective equipment a huge hole is created that is almost always lethal. When high powered rifles cause gunshot wounds to the head, survival is virtually impossible.

Dr. Schreiber believes the only reason why a person would want to own such weapons is to be able to kill people. Adding a bump stock will lead to many more deaths because it converts semi-automatic weapons into the equivalent of an automatic weapon and makes firing multiple shots as easy as firing any other machinegun.

If these weapons and the parts that transform them into machineguns become more common, Dr. Schreiber is certain physicians will not see many of the people who are shot. The victims will almost certainly die before they can be treated. Dr. Schreiber supports the ban on bump stocks.

O. Dr. Carol Vidal

Dr. Vidal is an assistant professor of psychiatry and behavioral sciences at Johns Hopkins University Hospital and School of Medicine, and President of the Maryland Psychiatric Society. She started her practice in West Baltimore, an area that has experienced a high quantity of firearm violence-related deaths for decades. Many families brought their children to her to treat what they initially thought was ADHD. The children had nightmares, acted out, and were easily startled or “jumpy.” As she unpacked the layers and identified patterns, she soon realized they were not suffering from ADHD. The children were suffering from trauma and PTSD from witnessing firearm violence — live, and in some cases, on the web.

Dr. Vidal works with a school-based program in Baltimore City. Three of the four schools she visits

had shootings at or just outside the school last year. Friends and peers of gunshot victims vividly recount their reactions to the empty seats in their classrooms. Many fear attending school, or travelling to and from school, and are not interested in making plans for college. They have trouble concentrating and believe they have no future. Many have nightmares and self-medicate with cannabis. In the first month of this school year, there was a death outside a football game and a shooting outside the cafeteria of one of the four schools, exposing the students to the violence. More recently three weapons were found in one of the school buildings.

Children do not have a future if gun violence reigns supreme. That violence is exacerbated by devices like bump stocks that convert weapons into machineguns. The violence must stop. Dr. Vidal supports the ban on bump stocks — for the sake of her community, and the next generation.

II. BUMP STOCKS ARE A PUBLIC HEALTH ISSUE AND THEIR PROHIBITION SAVES LIVES

In 2016, the AMA warned that gun violence is a public health crisis that requires a comprehensive, public health-based approach.³ As the physician narratives in Section I show, physicians witness firsthand every day the carnage resulting from gun violence and the long-term consequences on

³ Press Release, *AMA Calls Gun Violence “A Public Health Crisis”*, AMA (June 14, 2016), <https://www.ama-assn.org/press-center/press-releases/ama-calls-gun-violence-public-health-crisis>.

individuals, families and communities. But most firearm-related deaths are preventable.

On October 1, 2017, Stephen Paddock committed the deadliest mass shooting in American history. In just eleven minutes he fired more than 1,000 rounds from his 32nd-floor suites at the Mandalay Bay hotel in Las Vegas into a crowd attending the harvest music festival on the Las Vegas strip. He murdered 60 people and 869 others sustained injuries from his attack, including more than 400 who had gunshot or shrapnel injuries.⁴ Thirteen of his rifles were modified with bump stocks that caused them to fire much faster.⁵ They were and functioned as automatic machineguns. The bump stocks enabled Paddock to murder and injure more people than any previous shooter in America.

Semiautomatic assault weapons are the weapon of choice for mass shooters because of their lethality.⁶ Studies show the use of assault weapons in mass shootings has tripled in the last 50 years, the number of deaths in such shootings has increased by more than 50% and assault weapons account for a higher share of guns used in mass murders, murders of police

⁴ Joseph Lombardo, *LVMPD Criminal Investigative Report of the 1 October Mass Casualty Shooting*, Las Vegas Metro. Police Dep't (Aug. 3, 2018), <https://www.lvmpd.com/home/showpublisheddocument/134/638298568313170000>.

⁵ *Id.*

⁶ Klarevas, *supra* note 2, at 220; Christopher Koper et al., U. Penn. Jerry Lee Ctr. of Criminology, *An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994–2003*, 87 (2004), <https://www.ncjrs.gov/pdffiles1/nij/grants/204431.pdf>.

and mass public shootings.⁷ The use of bump stocks further increases the number of casualties, as the Las Vegas shooting shows. Their ability to accelerate the rate of fire of semi-automatic firearms makes them extremely dangerous and poses a substantial risk to public safety. Yet bump stocks and other conversion devices are often marketed as novelty items for recreational shooters.

The dissent from the en banc decision below correctly explains that the panel’s reasoning “rewrite[s] a vital public safety statute banning machineguns since 1934” and “legaliz[es] an instrument of mass murder.” *Cargill v. Garland*, 57 F.4th 447, 483 (5th Cir. 2023) (en banc) (Higginson, J., dissenting). Bump stocks are designed to try to circumvent the restrictions on the possession of fully automatic firearms by allowing individuals to modify semi-automatic rifles to fire as quickly as automatic rifles.

The AMA has sought to address this public health crisis by supporting the banning of the importation, sale, manufacture, transfer and possession of high-capacity ammunition magazines and bump stocks and related devices. Banning the possession and transfer of bump stocks is “a critical step forward in preventing future mass shootings such as the one in Las Vegas.

⁷ Mayors Against Illegal Guns, *Mass Shootings Since January 20, 2009*, 1 (2013), https://www.washingtonpost.com/blogs/wonkblog/files/2013/02/mass_shootings_2009-13_-_jan_29_12pm1.pdf.

The continued presence of these dangerous devices puts all of our communities at risk.”⁸

The public health dangers of allowing civilians access to bump stocks are obvious. The lives that will be saved if they remain banned are precious.

III. BUMP STOCKS ARE MACHINEGUNS AS DEFINED IN 26 U.S.C. 5845(b)

The en banc panel erred in rejecting the finding by the Bureau of Alcohol, Tobacco, Firearms and Explosives (“ATF”), the district court, and three judges of the Fifth Circuit that bump stocks are machineguns as defined in 26 U.S.C. 5845(b). One year earlier a Fifth Circuit panel correctly found that bump stocks fit within the definition of “machinegun.” They enable the firing of multiple rounds with a single “function” of the trigger. *See Cargill v. Garland*, 20 F.4th 1004 (5th Cir. 2021). The en banc panel’s contrary reading fails to follow the plain language of the statute. This Court should reject it and uphold the commonsense reasoning of the ATF, the district court and the three-judge panel.

The sole purpose of a bump stock is to modify a semi-automatic weapon to cause automatic fire.⁹ Just one movement of the shooter’s finger sets off a chain reaction in which the bump stock harnesses and

⁸ Letter from James Madara, MD, Exec. Vice President, CEO, AMA, to Hon. Jefferson Sessions, III, Att’y Gen. of the United States (June 27, 2018).

⁹ *See* Larry Buchanan et al., *What is a Bump Stock and How Does It Work?*, N.Y. Times (Mar. 28, 2019), <https://www.nytimes.com/interactive/2017/10/04/us/bump-stock-las-vegas-gun.html>.

directs the firearm’s recoil energy. The firearm shifts back and forth, “bumping” the shooter’s stationary trigger finger each time, and firing automatically without additional pulls of the trigger. *See Staples v. United States*, 511 U.S. 600, 603 (1994) (defining automatically as “fir[ing] more than one shot with a single pull of the trigger”).

As a firearms expert explained at trial, “there is no meaningful difference between” weapons that shoot automatically and those that have been equipped with bump stocks. *Cargill v. Barr*, 502 F. Supp. 3d 1163, 1194 (W.D. Tex. 2020). The en banc plurality’s focus on the “mechanics of the firing process,” *Cargill*, 57 F.4th at 452, departs from the straightforward statutory language. But “[w]ords are to be understood in their ordinary, everyday meanings—unless the context indicates that they bear a technical sense.” Antonin Scalia & Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* 69 (2012).

This Court has reiterated that statutory terms should be interpreted in accordance with their everyday meaning at the time they were enacted, as informed by their context. *See Southwest Airlines Co. v. Saxon*, 596 U.S. 450, 455 (2022). ATF’s final rule accords with that meaning of “machineguns.”

When the National Firearms Act of 1934 (“NFA”) was enacted, “automatic” meant “[h]aving a self-acting or self-regulating mechanism that performs a required act at a predetermined point in an operation.” Webster’s New Int’l Dictionary 187 (2d ed. 1937) (“Webster”). “Self-acting” meant having the power of motion or action within itself” and, “produc[ing] results otherwise done by hand.” Oxford

English Dictionary 574 (1st ed. 1933). A bump stock “automates” by harnessing power from the recoil motion of the gun, a function that makes additional action from the trigger finger unnecessary. In 1934, a firearm capable of firing in such a manner was understood to be “automatic.”¹⁰

The legislative history of the NFA further demonstrates that the en banc plurality’s interpretation contradicts Congressional intent. The Senate and House reports on the NFA both explain that the bill “contains the usual definition of machine gun as a weapon designed to shoot more than one shot without reloading and by a single pull of the trigger.” S. Rep. No. 73-1444, at 2 (1934); H.R. Rep. No. 73-1780, at 2 (1934).

The NFA was intended to limit the lethal risk posed by civilian use of automatic weapons: “The growing frequency of crimes of violence in which people are killed or injured by the use of dangerous weapons needs no comment. . . . [And] there is no reason why anyone except a law officer should have a machinegun . . .” H.R. Rep. No. 73-1780, at 1. The interpretation of the statute should not hinge on “technical”, “mechanic[al]” constructs devised by the en banc plurality. *Cargill*, 57 F.4th at 451. It is not plausible that lawmakers who intended to ban automatic weapons would have permitted owners of

¹⁰ See Webster, at 187 (defining “automatic gun” as “[a] firearm which, after the first round is exploded, by gas pressure or force of recoil automatically extracts and ejects the empty case, loads another round into the chamber, fires, and repeats the above cycle, until the ammunition in the feeding mechanism is exhausted or pressure on the trigger is released”).

semi-automatic firearms to convert their weapons into the very weapons the NFA sought to forbid.

The words “single function of the trigger” were used to distinguish machineguns from other firearms that, although automatically chambering the next round, fire only one shot with “a single pull of the trigger” and require the shooter to “release the trigger and pull it again for the second shot to be fired.” National Firearms Act: Hearings on H.R. 9066 Before the Comm. on Ways and Means, 73d Cong. 41 (1934).¹¹ Bump stocks do not require a second pull of the trigger.

Moreover, immediately following the passage of the NFA, the Treasury Department published a letter ruling that defined a machinegun as “[a] semiautomatic pistol or an autoloading pistol when converted into a weapon which shoots automatically, that is, one capable of discharging the entire capacity of its magazine with one pull of the trigger” Rev. Rul. XIII-38-7035, S.T. 772, 13-2 C.B. 433-34 (July-Dec. 1934). That is exactly what a bump stock does. ATF’s final rule correctly “tak[es] into account that there are other methods of initiating an automatic firing sequence that do not require a pull.” *See Bump-Stock-Type Devices*, 83 Fed. Reg. 66514, 66515 (Dec. 26, 2018) (codified at 27 C.F.R. §§ 447–49).

¹¹ The testimony and discussions between Representative Samuel B. Hill and Karl T. Frederick, then-President of the NRA, make it clear that a “[single] function of the trigger” was not meant to limit the scope of the definition of machine gun. *Id.*

CONCLUSION

The judgment below should be reversed.

December 26, 2023

Respectfully submitted,

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