

Classroom Security Volunteers

George Rebane – 28may22

On my *Rebane's Ruminations* blog I posted an approach ([here](#)) to provide per classroom security for the country's K-12 classrooms using trained community volunteers. A reader objected to the idea on several counts, most of which were the result of misunderstandings. However, he did posit that there might not be enough volunteers available to implement my proposed solution for including an armed security volunteer in classrooms in which the teacher would be unarmed. Here we examine the quantitative aspects of that criticism.

There are about 130,000 public and private K-12 schools in the US that employ about 4,000,000 teachers over the course of a 150-day school year. Not all teachers are active during the entire school year. However, it is the cohort of active teachers in schools that choose to provide armed classroom security which is the seminal parameter that will drive our calculation of the relevant parameters describing the cohort of security volunteers required to implement the proposed solution.

To start, assume that fraction $f_A = 0.9$ of $n_T = 4e6$ total teachers are active during any time of the school year of length $n_D = 150$ days. And let's say that only a fraction $f_A = 0.75$ of the teachers can/will be armed. Furthermore, assume that for whatever reasons, only $f_S = 0.67$ fraction of schools will participate in armed classroom security programs. This says that on the average there will be a requirement for $n_V = n_T * n_D * f_S * (1 - f_A) = 100,500,000$ armed security volunteer days per school year.

The 2022 US population numbers about $n_P = 330,000,000$, of which about $n_A = 140,000,000$ are adults between 50 and 75 years of age. Suppose security volunteers are only available from this cohort, and only $f_V = 0.05$ of these volunteer to be trained and serve. This means that the security volunteer corps will number $n_S = n_A * f_V = 7,000,000$. Using the above result, this means that each volunteer will have to serve $n_{DV} = n_V / n_S = 14.36$ days per school year. This and even higher levels of service seems to be very doable for a volunteer corps, especially with a hefty share of retirees and/or flex-working parents.

Since the security volunteer program is primarily meant to be a deterrent for would-be killers, staffing shortfalls may also be acceptable by assigning available volunteers in a random order to a school's classrooms during a teaching day. And even with such random placement, a would-be killer would be confronted much more quickly by the security volunteer(s) already on duty in the school. We must keep in mind that this security program, like most security programs, is always a 'probability game' that will provide fractional coverage to effectively reduce the crime rate (here school massacres) in the same manner as security is provided by law enforcement agencies throughout the land – there are never enough resources to put a cop on each corner 24/7 or an air marshal on every flight.

When/if such volunteer security programs are implemented, the country will quickly learn best practices from the various communities that will inevitably innovate to make such enhanced security work. And there is no guarantee of 100% effectiveness, there never was. But

confronting an active shooter within seconds rather than minutes (or hours), is clearly a better solution than today's response of continuing to wring our hands, blame each other, and pass more senseless gun control laws. Bottom line – schools need more than fewer trained guns to defend against crazed and armed punks who seek their place in the sun through mass murder.