

Does Poverty Cause Terrorism?

The Economics and the Education of Suicide Bombers

I
That investment in education is critical for economic growth, improved health, and social progress is beyond question. That poverty is a scourge that the international aid community and industrialized countries should work to eradicate is also beyond question. There is also no doubt that terrorism is a scourge of the contemporary world. What is less clear, however, is whether poverty and low education are root causes of terrorism.

In the aftermath of the tragic events of September 11, several prominent observers and policymakers have called for increased aid and educational assistance as a means for ending terrorism. "We fight against poverty," President George W. Bush has declared, "because hope is an answer to terror." But a careful review of the evidence provides little reason for optimism that a reduction in poverty

or an increase in educational attainment would, by themselves, meaningfully reduce international terrorism. Any connection between poverty, education, and terrorism is indirect, complicated, and probably quite weak. Instead of viewing terrorism as a direct response to low market opportunities or lack of education, we suggest it is more accurately viewed as a response to political conditions and long-standing feelings of indignity and frustration (perceived or real) that have little to do with economics.

An understanding of the causes of terrorism is essential if an effective strategy is to be crafted to combat it. Drawing a false and unjustified connection between poverty and terrorism is potentially quite dangerous, as the international aid community may lose interest in providing support to developing nations when the imminent threat of terrorism

recedes, much as support for development waned in the aftermath of the Cold War; and connecting foreign aid with terrorism risks the possibility of humiliating many people in less developed countries, who are implicitly told that they receive aid only to prevent them from committing acts of terror. Moreover, premising foreign aid on the threat of terrorism could create perverse incentives in which some groups are induced to engage in terrorism to increase their prospects of receiving aid. In our view, alleviating poverty is reason enough to pressure economically advanced countries to provide more aid than they are currently giving. Falsely connecting terrorism to poverty serves only to deflect attention from the real roots of terrorism.

To make any headway investigating the determinants of terrorism, one must have a working definition of terrorism. This is a notoriously difficult task. More than one hundred diplomatic and scholarly definitions of the term exist. . . .

The State Department, which acknowledges that no single definition of terrorism has gained universal acceptance, seems to have captured what is considered terrorism by many governments and international organizations. Since 1983, it has employed this definition for statistical and analytical purposes: "The term 'terrorism' means premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience. The term 'international terrorism' means terrorism involving citizens or the territory of more than one country." The State Department also specifies that "the term noncombatant is interpreted to include, in addition to civilians, military personnel who at the time of the incident are unarmed and/or not on duty. . . . We also consider as acts of terrorism attacks on military installations or on armed military personnel when a state of military hostilities does not exist at the site, such as bombings against U.S. bases in the Persian Gulf, Europe, or else-

where." The rub, of course, is that the definitions of "subnational" and "military hostilities" leave much latitude for disagreement.

The definitions of terrorism used by scholars, by contrast, tend to place more emphasis on the intention of terrorists to cause fear and terror among a targeted population that is considerably larger than the actual victims of their attacks, and to influence the views of that larger audience. The actual victim of the violence is thus not the main target of the terrorist act. Scholarly definitions often also include nation-states as potential perpetrators of terrorism.

Rather than dogmatically adhere to one definition, we have analyzed involvement in or support for activities that, at least when judged by some parties, constitute terrorism. Still, in the incidents that we have analyzed, the line between terrorism and resistance is often blurred. At the least, all of the cases we examine could be thought of as involving politically motivated violence. Moreover, it is reassuring that our main conclusions appear to hold across a varying set of circumstances, cultures, and countries. (We do not examine state terrorism because we suspect that the process underlying participation in state terrorism is quite different from the process underlying sub-state terrorism, and would involve a different type of analysis. We do not dispute that state terrorism exists, and that it has at times generated sub-state terrorism as a response.)

In economics, it is natural to analyze participation in terrorism in the framework of occupational choice. As is conventional in economics, involvement in terrorism is viewed as a rational decision, depending on the benefits, costs, and risks involved in engagement in terrorism compared with other activities. Not surprisingly, the standard rational-choice framework does not yield an unambiguous answer to the question of whether higher income and more education would reduce participation in terrorism.

In this context, we have also reviewed evidence on "hate crimes," which can be viewed

as a close cousin to terrorism in that the target of an offense is selected because of his or her group identity, not because of his or her individual behavior, and because the effect of both is to wreak terror in a greater number of people than those directly affected by the violence. A consensus is emerging in the social science literature that the incidence of hate crimes, such as lynchings of African Americans or violence against Turks in Germany, bears little relation to economic conditions.

Most significantly, we have considered data from a public-opinion poll conducted in the West Bank and Gaza Strip by the Palestinian Center for Policy and Survey Research (PCPSR). In December 2001, Palestinians were asked whether they supported attacks on Israeli civilian and military targets, and about whether they considered certain incidents acts of terrorism. Breaking down the data by education and occupation indicates that support for violence against Israeli targets is widespread in the Palestinian population, and at least as great among those with higher education and higher living standards as it is among the unemployed and the illiterate. Similarly, a review of the incidence of major terrorist acts over time in Israel, and an analysis that relates the number of terrorist acts each year to the rate of economic growth in that year or in the recent past, yields the same skepticism about the idea that poverty is a cause of terrorism.

The data on participation in and support for political violence, militancy, and terrorism that we have examined are meager, often indirect, and possibly nonrepresentative. In addition, participation in terrorist activities may be highly context-specific, and we have examined terrorism, militancy, and politically motivated violence in a small number of settings primarily in the Middle East. Consequently, our results must be considered tentative and exploratory. Yet we are not aware of compelling evidence that points in the opposite direction from what we have found. In light of our results, we would urge intellectuals and policymakers to exercise caution in presum-

ing that poverty and education have a direct and causal impact on terrorism.

II

A simple view of terrorism is that participation in terrorism is akin to participation in crime in general. Economists have a well-developed and empirically successful theory of participation in criminal activities. As emphasized by Gary Becker, individuals should choose to allocate their time between working in the legal job market or working in criminal activities in such a way that maximizes their utility. After accounting for the risk of being caught and penalized, the size of the penalty, and any stigma or moral distress associated with involvement in crime, those who receive higher income from criminal activities would choose involvement in crime. According to this model, crime increases as one's market wage falls relative to the rewards associated with crime, and decreases if the risk of being apprehended after committing a crime, or the penalty for being convicted of a crime, rises. Available evidence suggests that individuals are more likely to commit property crimes if they have lower wages or less education; but the occurrence of violent crimes, including murders, is typically found to be unrelated to economic opportunities.

Some economists, notably William Landes, Todd Sandler, and Walter Enders, have applied the economic model of crime to transnational terrorism. They focus on how an increase in penalties and law enforcement influences the incentive to partake in terrorist activities. But the economic model yields few concrete predictions insofar as the relationship between market opportunities and participation in terrorism is concerned, because participation in terrorist acts by individuals with different characteristics depends on the probability that participation will bring about the desired political change, as well as the differential payoff for the various groups associated with achieving the terrorists' desired aims versus the penalties as-

sociated with failure. It is possible, for example, that well-educated individuals will disproportionately participate in terrorist groups if they think that they will assume leadership positions if they succeed, or if they identify more strongly with the goals of the terrorist organization than less-educated individuals.

Other important considerations include the relative pay of skilled and unskilled individuals for participation in terrorist organizations and how it compares to relative pay in the legal sector, and the selection of particular terrorists by terrorist organizations. Bill Keller recently reported in *The New York Times* that Iraq decided in March to increase the payment to families of suicide bombers in the West Bank and Gaza from \$10,000 to \$25,000. In the month after that decision, suicide bombings increased, though it is unclear whether the connection is causal.

Even before the increase in the payment to families of suicide bombers, there was a large supply of willing suicide bombers, as Nasra Hassan, a relief worker for the United Nations, reported last year in *The New Yorker*. Between 1996 and 1999, Hassan interviewed nearly two hundred fifty militants and associates of militants involved in the Palestinian cause, including failed suicide bombers, the families of deceased bombers, and those who trained and prepared suicide bombers for their missions. One Hamas leader whom Hassan interviewed remarked: "Our biggest problem is the hordes of young men who beat on our doors, clamoring to be sent [on suicide missions]. It is difficult to select only a few." A senior member of the al-Qassam Brigades said: "The selection process is complicated by the fact that so many wish to embark on this journey of honor. When one is selected, countless others are disappointed." Thus, the demand side is also part of the equation.

With a queue of willing participants, how do terrorist or militant groups choose their suicide bombers? A planner for Islamic Jihad explained to Hassan that his group scrutinizes the motives of a potential bomber to be sure

that the individual is committed to carrying out the task. Now, a high level of educational attainment is probably a signal of one's commitment to a cause, as well as of one's ability to prepare for an assignment and carry it out. For this reason, the stereotype of suicide bombers being drawn from the ranks of those who are so impoverished that they have nothing to live for may be wildly incorrect. This interpretation is also consistent with another of Hassan's observations about suicide bombers: "None of them were uneducated, desperately poor, simple-minded, or depressed. Many were middle class and, unless they were fugitives, held paying jobs. More than half of them were refugees from what is now Israel. Two were the sons of millionaires."

Suicide bombers clearly are not motivated by the prospect of their own individual economic gain, although it is possible that the promise of larger payments to their families may increase the willingness of some to participate in these lethal missions. We suspect their primary motivation instead results from their passionate support for the ideas and the aims of their movement. "Over and over," Hassan reported, "I heard them say, 'The Israelis humiliate us. They occupy our land and deny our history.'" The eradication of poverty and the attainment of universal high school education are unlikely to change these feelings. Indeed, it is even possible that those who are well-off and well-educated experience such feelings more acutely. . . .

III

The Palestinian Center for Policy and Survey Research (PCPSR) is an independent, non-profit research organization in Ramallah that conducts policy analysis and academic research in the West Bank and Gaza. In December 2001, PCPSR conducted a public-opinion poll of 1,357 Palestinians eighteen years old or older in the West Bank and Gaza. The survey, which was conducted by in-person interviews, covered topics including the participants' views

toward the September 11 attacks in the United States, the participants' support for an Israeli-Palestinian peace agreement, and their opinions about armed attacks against Israel. Under trying circumstances in the middle of one of the worst periods of the Israeli-Palestinian conflict, a researcher at the center kindly provided us with tabulations of key questions broken down by the educational level and the occupational status of the respondents.

Although public-opinion polls are subject to multiple interpretations, such data can provide indirect information about which segments of the population support terrorist or militant activities. The PCPSR poll reveals several things. First, the support for armed attacks against Israeli targets by the Palestinian population is widespread, though it is important to emphasize that there is a distinction between support for armed attacks expressed in a public-opinion poll at a particular point in time and participation in or active support for such attacks. Second, a majority of the Palestinian population believes that armed attacks against Israeli civilians have helped to achieve Palestinian rights in a way that negotiations could not have achieved. This finding raises obvious implications concerning the difficulty of ending the attacks, and may partially account for the Palestinian public's opposition to a United Nations initiative to fight terrorism, which was also found in the poll. If the Palestinian public believes the attacks are efficacious, they are unlikely to cease supporting additional attacks unless their demands are met. Another question asked was: "To what extent do you support or oppose the position taken by President Arafat and the [Palestinian Authority] regarding the U.S. campaign against terror?" Thirty-six percent supported or strongly supported the position of Arafat in this case, and 50.4 percent opposed it.

Moreover, a majority of the Palestinian population did not consider suicide bombings, such as the one that killed twenty-one Israeli youths at the Dolphinarium disco in Tel Aviv, terrorist events. Toward the end of the ques-

tionnaire, respondents were also asked whether they thought the international community considered the Dolphinarium bombing a terrorist event. Ninety-two percent responded yes. These results highlight important differences in interpreting the meaning of the word "terrorism."

Most important for our purposes, there is no evidence in these results that more highly educated individuals are less supportive of violent attacks against Israeli targets than are those who are illiterate or poorly educated. Consider the percentage of individuals who say they support or strongly support armed attacks against Israeli targets less those who say they oppose or strongly oppose such attacks. By a margin of 68 points, those with more than a secondary school education support armed attacks against Israeli targets, while the margin is 63 points for those with an elementary school education and 46 points for those who are illiterate.

A survey conducted by PCPSR in November 1994, before the current intifada, asked respondents whether they supported a dialogue between Hamas and Israel. Responses were reported by educational attainment. More highly educated respondents were less supportive of a dialogue with Israel: 53 percent of those with a B.A. and 40 percent of those with an M.A. or a Ph.D. supported a dialogue, compared with 60 percent of those with nine years of schooling or less. (Based on other questions, it is clear that supporters of dialogue generally favored a more peaceful coexistence with Israel.)

The PCPSR study in 2001 showed also that support for armed attacks against Israeli targets is widespread across all Palestinian occupations and groups, but particularly strong among students (recall that respondents are age eighteen or older) and merchants and professionals. Notably, the unemployed are somewhat less likely to support armed attacks against Israeli targets. If poverty was indeed the wellspring of support for terrorism or politically motivated violence, one would

have expected the unemployed to be more supportive of armed attacks than merchants and professionals, but the public-opinion evidence points in the other direction. . . .

We also performed a detailed analysis of participation in Hezbollah in Lebanon, which has reportedly instructed Palestinian extremist groups on the use of suicide bomb attacks. We compared the background characteristics of 129 members of Hezbollah's militant wing who died in action mostly in the late 1980s to those of a random sample of 121,000 young people in the Lebanese population. Many of these militants died fighting Israeli occupation, while others died in suicide bomb attacks or while planting booby traps. The Hezbollah militants in this sample are likely to be representative of those who engaged in terrorist acts, and some were carrying out terrorist acts when they died. Compared to the general Lebanese population from the same age group and region, the Hezbollah militants were actually slightly less likely to come from impoverished households, and were more likely to have attended secondary school or higher. These results suggest that the militants were not particularly drawn from those with the least opportunities in society.

And this conclusion is ratified by political violence on the other side as well. In the late 1970s and early 1980s, numerous violent attacks against Palestinians were conducted by Israeli Jews in the West Bank and Gaza. These attacks included attempts to kill three Palestinian mayors of West Bank cities and attempts to blow up the Dome of the Rock mosque in Jerusalem. From 1980 to 1984, a total of twenty-three Palestinians were killed in attacks by what became known among Israelis as the Jewish Underground, and 191 Palestinians were injured. The *International Encyclopedia of Terrorism* (1997) refers to these attacks as acts of terrorism. In a ruling in 1985, an Israeli court convicted three Israeli settlers of murder and found others guilty of violent crimes in cases involving attacks in the West Bank.

What were the biographical backgrounds of those involved in these violent attacks by Israeli Jewish extremists? A list may be compiled of the name, the age, the occupation, and the nature of underground activity for twenty-seven individuals involved in the Jewish Underground in the early 1980s, based mainly on a memoir of the Jewish Underground by Haggai Segal, one of its members. It is clear from such a chart that these Israeli extremists were overwhelmingly well-educated and in high-paying occupations. The list includes teachers, writers, university students, geographers, an engineer, a combat pilot, a chemist, and a computer programmer. As Donald Neff observed in 1999 about the three men convicted of murder, "all were highly regarded, well-educated, very religious." Although we have not statistically compared the backgrounds of these extremists to the wider Israeli population, these twenty-seven individuals certainly do not appear to be particularly underprivileged or undereducated.

IV

The evidence that we have assembled and reviewed suggests that there is little direct connection between poverty, education, and participation in or support for terrorism. Indeed, the available evidence indicates that compared with the relevant population, participants in Hezbollah's militant wing in the late 1980s and early 1990s in Lebanon were at least as likely to come from economically advantaged families and to have a relatively high level of education as they were to come from impoverished families without educational opportunities. We should caution, however, that the evidence we have considered is tentative due to data limitations. In addition, our focus has been primarily on the Middle East, so our conclusions may not generalize to other regions or circumstances. . . .

While economic deprivation may not be associated with participation in terrorism and political violence at the individual level, it may

nonetheless matter at the national level. If a country is impoverished, a minority of the relatively well off in that country may turn to terrorism to seek to improve the conditions of their countrymen. One might question, though, whether the goal of many terrorist organizations is to install a political regime that is likely to reduce poverty. In addition, there are well-documented cases of homegrown terrorism in economically advanced countries (remember Timothy McVeigh?), so it is far from clear that poverty at a national level is associated with support for terrorism. Of course, this question can only be addressed by cross-country analyses.

In addition, poverty may indirectly affect terrorism through the apparent connection between economic conditions and the proclivity for countries to undergo civil wars. James Fearon and David Laitin have found that GDP per capita is inversely related to the onset of civil war, and Paul Collier and Anne Hoeffler have found that the growth rate of GDP per capita and the male secondary-school enrollment rate are inversely related to the incidence of civil war. Lebanon, Afghanistan, and Sudan are high-profile examples of countries where civil war provided a hospitable environment for international terrorists to operate. But there are other situations in which countries undergoing a civil war did not provide a breeding ground for international terrorism, so it is unclear how much one should extrapolate from the relationship between economic development and civil war. And terrorism has arisen in many countries that were not undergoing a civil war.

Enough evidence is accumulating that it is fruitful to begin to conjecture why participation in terrorism and political violence is apparently unrelated—or positively related—to individuals' income and education. The standard economic model of crime suggests that those with the lowest value of time should engage in criminal activity. But we would hypothesize that in most cases terrorism is less like property crime and more like a violent

form of political engagement. More-educated people from privileged backgrounds are more likely to participate in politics, probably in part because political involvement requires some minimum level of interest, expertise, commitment to issues, and effort, all of which are more likely if people are educated enough and prosperous enough to concern themselves with more than economic subsistence. These factors could outweigh the effect of opportunity cost on individuals' decisions to become involved in terrorism.

The demand side for terrorists must be considered as well as the supply side. Terrorist organizations may prefer highly educated individuals over less-educated ones, even for suicide bomb attacks. In addition, educated middle-class or upper-class individuals are better suited to carry out acts of international terrorism than are impoverished illiterates, because the terrorists must fit into a foreign environment to be successful. This consideration suggests that terrorists who threaten economically developed countries will disproportionately be drawn from the ranks of the relatively well off and highly educated.

On the whole, we must conclude that there is little reason to be optimistic that a reduction in poverty or increase in educational attainment will lead to a meaningful reduction in the amount of international terrorism without other changes. Jessica Stern has observed that many madrasahs, or religious schools, in Pakistan are funded by wealthy industrialists, and that those schools deliberately educate students to become foot soldiers and elite operatives in various extremist movements around the world. She further reported that "most madrasahs offer only religious instruction, ignoring math, science, and other secular subjects important for functioning in modern society." These observations suggest that, in order to use education as part of a strategy to reduce terrorism, the international community should not limit itself to increasing years of schooling, but should consider very carefully the content of education.