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## Poverty and Low Education Don't Cause Terrorism

In the minds of many, poverty and violence often go together. After the events of September 11, several prominent observers, ranging from George W. Bush to George McGovern, drew a connection. The head of the World Bank even proclaimed that terrorism will not end until poverty is eliminated. Perhaps surprisingly, then, a review by NBER Research Associate Alan Krueger and co-author Jitka Maleckova provides little reason for optimism that a reduction in poverty or an increase in educational attainment, by themselves, would meaningfully reduce international terrorism.

"Any connection between poverty, education, and terrorism is indirect, complicated, and probably quite weak," the authors note in **Education, Poverty, Political Violence, and Terrorism: Is There a Causal Connection?** (NBER Working Paper No. 9074). "Instead of viewing terrorism as a direct response to low market opportunities or ignorance, we suggest it is more accurately viewed as a response to political conditions and long-standing feelings (either perceived or real) of indignity and frustration that have little to do with economics."

The authors are concerned that drawing a connection between poverty and terrorism — if it is not justified — is potentially quite dangerous because the international community may lose interest in providing support to developing nations when the imminent threat of terrorism recedes. That support, they note, waned in the aftermath of the Cold War. Connecting foreign aid with terrorism also risks the possibility of humiliating many in less developed countries, who are implicitly told they only receive foreign aid to prevent them from committing acts of terror.

Further, premising aid on the threat of terrorism could create perverse incentives for some groups to engage in terrorism to increase their prospect of receiving aid. "Alleviating poverty is reason enough to pressure economically advanced countries to provide more aid than they are currently giving," Krueger and Maleckova write.

Defining terrorism is difficult; there are more than 100 diplomatic or scholarly definitions, the authors

ly, Krueger and Jörn-Steffan Pischke found that in Germany neither average education nor the average wage in the country's 543 counties was related to the amount of violence against foreigners.

Turning to terrorism, the authors' analysis of the results of a public opinion poll conducted in the West Bank and Gaza Strip in December 2001 indicates that support for violent attacks against Israeli targets does not

"Members of Hezbollah's militant wing who were killed in action in the 1980s and early 1990s were at least as likely to come from economically advantaged families and have a relatively high level of education as they were to come from impoverished families without educational opportunities."

note. One problem is that there are valid disputes as to which party is a legitimate government. Since 1983, the U.S. State Department has defined terrorism as "premeditated, politically motivated violence perpetrated against noncombatant targets by sub-national groups or clandestine agents, usually intended to influence an audience." In their study, Krueger and Maleckova cast a broad net.

To reach their conclusions, they look first at hate crimes, which are closely related to terrorism. These include the lynchings of African Americans and the violence against Turks in Germany. About 10 percent of the 3,100 counties in the United States are currently home to a hate group, such as the Klu Klux Klan, according to the Southern Poverty Law Center. A study by Phillip Jefferson and Frederic Pryor found that the likelihood that a hate group was located in a county was unrelated to the unemployment rate in the county, and positively related to the education level in the county. Similar

decrease among those with higher education and higher living standards. A majority of the Palestinian population said that the attacks against Israeli civilians helped achieve Palestinian rights in a way that negotiations could not have. A 92 percent majority also did not consider the suicide bomb attack that killed 21 Israeli youths at the Dolphinarium night club in Tel Aviv last summer to be terrorism.

From analyzing earlier opinion polls and economic trends in the West Bank and Gaza Strip, Krueger and Maleckova conclude, "There is little evidence here to suggest that a deteriorating economy or falling expectation for the economy precipitated the latest intifada." They observe, "Protest, violence, and even terrorism can follow either a rising or declining economic tide."

The core of the study entails a comparison of the characteristics of members of Hezbollah (or Party of God), which the U.S. Department has designated a terrorist organization, with those of the gen-

eral population of Lebanon. Their analysis indicates that members of Hezbollah's militant wing who were killed in action in the 1980s and early 1990s were at least as likely to come from economically advantaged families and have a relatively high level of education as they were to come from impoverished families without educational opportunities.

Likewise, looking at the Israeli Jewish underground, which conducted numerous violent attacks against Palestinians in the late 1970s and early 1980s, killing 23 Palestinians

and maiming many others, the study finds that these Israeli extremists were "overwhelmingly well educated and in high paying occupations."

Economists have found a link between low incomes and property crimes. But in most cases terrorism is less like property crime and more like a violent form of political engagement, the authors suggest. "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 and wealthy enough to concern themselves with more than mere economic subsistence," they write. And terrorist organizations may prefer to use highly educated individuals as operatives because they are better suited to carry out acts of international terrorism than are impoverished illiterates since the terrorists must fit into a foreign environment to be successful.

— David R. Francis

## The Small Cost of Accountability

**O**ne of the chief arguments against the wider implementation of accountability in American public education — comprehensive and properly administered testing, well-defined standards, and an effective report card system—is that it is simply too expensive. In fact, critics argue that accountability is so costly it must come at the expense of such educational aims as reducing class size or increasing teachers' salaries. But in **The Cost of Accountability** (NBER Working Paper No. 8855), **Caroline Hoxby** assesses publicly available data and concludes that in proportion to the cost of other education programs, the cost of accountability is minuscule.

The cost of accountability is readily discernible in state budgets, school budgets, and in the revenues of the commercial firms that prepare the testing instruments, grade them, and issue reports. Because of the small number and large market shares of the firms involved, Hoxby says, analysts have a very clear sense of the industry's revenues from accountability systems. According to the Association of American Publishers, total revenues from the sales of tests, related teaching materials, and services amounted to \$234.1 million in 2000. But even though this figure includes revenues from a wide range of tests (I.Q., diagnostics for disabled children, career guidance tests, and the like), Hoxby calculates

that the revenues amount to only \$4.96 per student. Even adding in the cost of the National Assessment of Educational Progress, the only significant test not produced by a commercial test publisher, the accountability cost per pupil reaches only \$5.81. Since the overall average cost of educating a child in the United States in the 2000-1 school year was \$8157, payments to all test makers represented just 0.07 percent (seven-hun-

the upper bound on how much it costs to maintain an accountability system.

Hoxby analyzes the educational accountability costs of 25 states, including all the states that have very well known or expensive systems. The systems vary in regard to the amount of testing and in how test results are reported and tracked from year to year. Other factors include the specific testing required in a par-

"Even if accountability costs were 10 times as large as they are, they would still not amount to 1 percent of the cost of public education!"

dredths of 1 percent) of the cost of elementary and secondary education. Put another way, Hoxby states, even if accountability costs were 10 times as large as they are, they would still not amount to 1 percent of the cost of public education!

Hoxby notes that average costs differ from state to state depending on a number of factors, including the amount of test evaluation done "in house," the degree to which tests are tailored to a specific state's requirements, and so on. But because accountability systems tend to be highly popular with the public, states have an incentive to overstate rather than to underestimate their financial commitment to accountability. Thus, she writes, once we add up a state's reported expenses for its accountability system, we will certainly find

ticular state and the size of the state's population. Thus the statewide expenditures range from a low of \$1.79 per student in fiscal 2001 (South Carolina) to a high of \$34.02 (Delaware). Arizona's fairly comprehensive accountability system, often cited as a model for other states, costs \$8.72 per pupil. California's more elaborate system costs \$19.93. But Hoxby maintains that even if every state spent as much as Delaware does per student on accountability, this still would amount to only 0.4 percent, or less than one half of 1 percent, of the total per pupil expenditure in the nation's public schools.

Analyzing national data, Hoxby finds that an educational policy of a reduction in class size of 10 percent (which typically translates into an

average of two fewer students per class) requires an increase in per-pupil spending that averages \$615 in the United States. Thus, such a class size reduction would cost *12,399 percent more* than the current average cost of an accountability system. Likewise, a 10 percent increase in teachers' salaries would cost the average American school \$437 per student, which would be *8,810 percent more* than the average cost of assessment.

Finally, Hoxby examines the common criticism that accountability systems result in "teaching to the test." Noting that the goal of accountability systems is to give schools strong incentives to teach the material that is ultimately tested, she

argues that we must distinguish between teaching *the test* (bad) and teaching the curriculum on which the test is based (good). Policymakers mean to encourage teaching the curriculum, but they should discourage teaching *the test*, which occurs through outright cheating and when teachers know the test questions and prepare students with specific answers. Hoxby notes that annually revised tests and outside proctors who deliver, administer, and return tests to the test-grading company would cost no more than \$4 per student, which is less than 0.05 percent (5 one-hundredths of 1 percent) of U.S. school spending per pupil. With such cheap solutions to the problem of teaching

the test, there is no reason for any accountability system to have less than sterling integrity.

Overall, Hoxby concludes that accountability is so cheap compared to other educational reforms that almost any cost-benefit analysis will favor it over other reforms. Moreover, she notes that many other reforms work better when parents and policymakers can evaluate progress continuously, something that is much easier to do if an accountability system is in place. Accountability tends to be complementary with other reforms, and it is so inexpensive that it can always be combined with them.

— Matt Nesvisky

## Does In-Service Teacher Training Raise Student Achievement?

School districts and states often use in-service teacher training to improve student learning. Seventy-two percent of teachers nationally report having participated in training in their subject area in the previous twelve months and a comparable number in training on implementing new teaching methods. Despite widespread use, the intensity of the training is typically low. More than half of the teachers had eight hours or less of such training per year.

In *The Impact of Teacher Training on Student Achievement: Quasi-Experimental Evidence From School Reform Efforts in Chicago* (NBER Working Paper No. 8916), authors **Brian Jacob** and **Lars Lefgren** study the effect of in-service teacher training on the math and reading performance of elementary students in probationary schools in Chicago. The authors find that moderate increases in teacher training have no statistically or academically significant effect on either reading or math achievement. The results did not vary across race, gender, socio-economic background, or student ability.

The Chicago Public School System (CPS) is the nation's third largest school district, serving over 430,000 largely low-income students.

In 1996, CPS placed 71 of its 489 elementary schools on academic probation, based on the results of standardized reading test scores. Probation schools received special funding for teacher professional development along with other support services aimed at improving teacher effectiveness. The authors find that probation increased the frequency of professional development activities by about 25 percent in the

"Moderate increases in teacher training have no statistically or academically significant effect on either reading or math achievement."

first year, with teachers reporting an increase in the quality of the training as well.

Consistent with most earlier research on teacher training in the United States, the teacher training and technical assistance provided to probation schools in Chicago had no meaningful effect on student achievement. Since national data suggest that the frequency and nature of professional development activities in Chicago were comparable to other school districts in the United States, the authors suggest that such modest increases in the intensity of professional development efforts commonly undertaken in the United States

will likely fail to improve the achievement of elementary students in high poverty, failing schools.

The authors contrast the results of the professional development activities in Chicago with those from other areas. One recent study of the Jerusalem public schools showed that teacher training there did increase student achievement. The authors offer several reasons to explain the disparate results from the Chicago

and Jerusalem studies. First, the Chicago program was implemented in extremely high poverty, low-achieving schools. The Jerusalem schools included mostly middle to lower-middle class neighborhoods and some upper-middle class students. Second, the Jerusalem training was highly structured and closely aligned with the school curriculum, which was not the case in Chicago. Finally, the Jerusalem training was complemented by direct services to students in the form of after-school learning centers and programs for immigrant families.

— Les Picker

# Drug Treatment is a Crime Fighting Tool

In **Drug Treatment as a Crime Fighting Tool** (NBER Working Paper No. 9038) authors **Mireia Jofre-Bonet** and **Jody Sindelar** consider whether decreased drug use resulting from drug treatment programs reduces the number of days in a given month that inner-city drug users engage in crime for profit. The approximately 3,500 drug users who provided the data for this study were entering treatment at the time of their first interview. The participants were asked about their use of illicit drugs and alcohol, physical and mental health, family characteristics, criminal history, and socioeconomic and demographic characteristics. They were surveyed both on entering treatment and about seven months later. By that time, most had finished their treatment programs or had dropped out. The resulting data allowed the authors to compare changes in individual behavior before and after treatment for drug abuse.

The authors find that after drug treatment, "crime days per month" decreased by .78 for the sample as a whole, by .64 for those in outpatient treatment, and by .57 for those who were on parole. Before treatment, the

crime days reported by each of those groups were 1.28, 1.31, and 1.04, respectively. For the full sample, this corresponded to an 18 percent reduction in crime attributable to a reduction in heroin use after treatment, a 33 percent reduction in crime attributable to a reduction in the use of

their treatment began or at the follow-up interview also reported the most days of drug and alcohol use when they started treatment, and reported substantially more crime days in total (almost 11 in the last month). For this group, use of heroin, other drugs, and alcohol explained

"… this corresponded to an 18 percent reduction in crime attributable to a reduction in heroin use after treatment, a 33 percent reduction in crime attributable to a reduction in the use of other drugs, and a 9 percent reduction attributable to decreases in alcohol consumption."

other drugs, and a 9 percent reduction attributable to decreases in alcohol consumption. Overall, the authors find that "the crime reduction induced by reduced drug use and alcohol intake explains a very high percentage of the crime at the beginning of the treatment." For each single percent reduction in days spent using heroin, other drugs, and alcohol, crime days are reduced by 0.27 percent, 0.53 percent, and 0.14 percent, respectively.

The subgroup of people who reported committing crimes when

15 percent, 21 percent, and 12 percent of the drop in crime days after treatment, respectively.

Outpatient drug treatment costs about \$300 for counseling based treatment and \$3,000 for a year of methadone treatment. A year in jail costs about \$23,000. Thus, the authors conclude that treatment may be a cost-effective alternative for preventing crime by drug abusing individuals.

— Linda Gorman



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