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One Eye on the Past,
One Eye on the Future

Any organization that’s been around for nearly 60 years has a right to tout the enduring value of its work—and a responsibility to do so when the lessons of the past could be overlooked to the detriment of the present. Any organization that plans to be around for another 60 years should harbor a doubly vigorous skepticism toward the present way of doing things, especially when clear-cut opportunities for improvement arise. This issue of RAND Review offers examples of both.

A news item and an editorial recall lessons that have been corroborated throughout 45 years of counterinsurgency research. When the Vietnam War ended 30 years ago, many policy experts believed that counterinsurgency theories and practices had passed their useful shelf lives and that the real action lay in understanding the Cold War face-off between the superpowers. Yet in Iraq and Afghanistan today, applying the lessons of counterinsurgency is long overdue.

The 30-year history of the all-volunteer U.S. military force is another example of how lessons often need to be relearned. As outlined in a feature story and centerpiece, cutbacks in military pay and recruiting have often been imposed at the worst times. The conflicts in the Middle East today have placed an unprecedented burden on the all-volunteer force, leaving little margin for further repetition of the historical error.

As for opportunities for improvement, health researchers have found reason to doubt some long-held assumptions about the best ways to improve health in developing countries. As described herein, four developing countries that have flouted the conventional wisdom appear to have benefited tremendously because of doing just that.

Vast opportunities to improve public policy on behalf of the common good now exist in the Gulf Coast states as a result of Hurricane Katrina. The cover story reports on some ways in which that nightmare of a year ago can give rise to a better morning—if community members and policy professionals seize the day. In a case as all-encompassing as this, any organization that’s been around a while understands that seizing the “day” means committing to the work for decades—and reminding people of the lessons learned when they are forgotten.

—John Godges
Counterinsurgency Lessons Can Inform Global War on Terror

As the U.S. military struggles with ever-evolving insurgencies in Iraq and Afghanistan, it does not need to reinvent the wheel, according to a new summary of the lessons learned from RAND’s five decades of counterinsurgency research. Tactics used to battle Cold War–era insurgencies—such as offering amnesty to combatants and securing national borders—could help the United States in its current confrontations with insurgents in Iraq and Afghanistan.

The new report argues that while counterinsurgency details may vary greatly between the Cold War and today, many of the differences are overstated. For example, some today view the fragmented nature of the Iraqi insurgency as almost without precedent. Yet “many insurgencies during the Cold War were fragmented, with rebel groups fighting each other as well as a central opposition force,” said Austin Long, author of the RAND report.

Long, a doctoral candidate in securities studies at the Massachusetts Institute of Technology, reviewed dozens of past RAND studies about tactics used against insurgencies in such disparate places as Vietnam, Algiers, and El Salvador to distill lessons for today’s conflicts. His work included efforts to declassify several reports so that their lessons could be incorporated into his study.

He found four lessons of particular relevance to today’s ongoing battles: the proper organization of counterinsurgency efforts; the use of amnesty and reward programs; the control of national borders; and pacification of a nation’s population.

He concluded that the best way to organize against insurgencies would be to bring together political and military components into one decisionmaking group so that the efforts of one do not undercut the progress of the other. He suggested that the Provincial Reconstruction Teams currently operating in Iraq and Afghanistan be expanded to create similar efforts at the regional and national levels.

Another proven strategy would both extend amnesty to those involved in an insurgency and offer rewards to people who turn in those involved in insurgent fighting. Amnesty should be offered in Iraq even to insurgents who have been involved in killings, said Long, but only if the combatants agree to cooperate fully with the government and relocate away from insurgent-dominated areas. He noted that the current reward program in Iraq is heavily focused on top leaders, with little funding to encourage reporting on rank-and-file insurgents.

A third recommendation is to improve border security systems for each country. The use of technologies such as remote-piloted vehicles cued by ground-based sensors could provide a cost-effective way to monitor border infiltration, allowing troops to respond quickly, said Long.

The fourth recommendation is to focus on ways to pacify local areas rather than an entire nation. In addition, development efforts should target local areas that show a willingness to support their own defense, while development efforts at the national level should emphasize the improvement of infrastructure and other shared resources.

The report also highlights the relevance of two RAND-formulated theories: “hearts and minds” and “cost/benefit.” The former stresses the need to win popular support by ameliorating some of the negative effects of economic development while accelerating the delivery of modernity’s benefits. The latter points out that coercive methods could actually stimulate an insurgency, leading to a spiral of fighting between insurgent and counterinsurgent—a spiral that might be unwinnable by modern democracies with moral and political limitations on the use of force.

The best way to organize against insurgencies would be to bring together political and military components into one decisionmaking group so that the efforts of one do not undercut the progress of the other.

Maritime Terrorism Risk Involves More Than Just Container Shipping

A new RAND report has found that the heightened perception of maritime terrorism risks does not conform to the reality of today’s threats and vulnerabilities. The study assessed whether the maritime terrorism threat is increasing, what maritime terrorist scenarios appear to be the most worrisome, and whether current liability rules can help the private sector manage the risks.

The study compared a series of attack scenarios within three shipping categories: container ships, cruise ships, and ferries. It assessed the magnitude of the human and economic consequences of the various scenarios and the likelihood of their occurrence—as determined by target vulnerability and terrorist intent and capability.

As shown in the figure, which plots the scenarios within the three groups, two classes of risk emerge as most important. First, although container shipping attacks are less likely, some—such as the detonation of a nuclear bomb in a container within a port—merit attention because of their extreme potential consequences. Second, smaller attacks on cruise and ferry ships—such as onboard bombs or food and water contamination—are considered important because they are well within the capabilities of contemporary terrorists and have direct ramifications for human life, even if the overall consequences are relatively moderate.

According to Peter Chalk, one of the report’s coauthors, both classes of risk would variously “meet the interrelated terrorist requirements of disruption, destruction, and publicity.”

The study offers a number of recommendations. It argues that policymakers should base maritime terrorism policy on empirical risk analysis rather than on perceived threats. In addition, because the greatest risks to human life turn out to involve onboard bombs or biological attacks on cruise ships and ferries, the study stresses the need for policymakers to audit the soundness of vessel and facility security procedures for passenger ships, to improve security measures at ports for passengers and luggage, and to implement vigorous procedures for documenting crew and staff.

“Focusing solely on securing the container supply chain without defending other parts of the maritime environment is like bolting the front door and leaving the back door wide open,” said Henry Willis, a report coauthor.

The authors state that civil liability is the de facto, principal approach to managing maritime terrorism risks through private-sector incentives. However, current liability standards in this context are so ambiguous that “the civil justice system may not be effective either as a compensation mechanism or in generating clear incentives for private-sector firms,” according to coauthor Michael Greenberg.

Because current civil liability standards provide so little guidance to firms, the study argues that policymakers should both review the rationale of third-party liability for terrorist attacks (by which firms are held responsible for attacks perpetrated by terrorists) and consider the pros and cons of civil liability as a method for dealing with maritime terrorism risks and injuries. ■

News

Felons Reload While No One Is Watching, Report Finds

Federal and state laws prohibit certain criminals from possessing ammunition, but that did not stop 52 such criminals from purchasing more than 10,000 rounds of ammunition in a two-month period, according to a new RAND report published in the October 2006 issue of *Injury Prevention*.

The study is based on information collected from ten ammunition retailers by the Los Angeles Police Department and screened by the federal Bureau of Alcohol, Tobacco, Firearms, and Explosives to see whether the buyers appeared in federal or state criminal databases. The study covers the months of April and May 2004.

Over those two months, more than 2,000 people bought ammunition from the ten retailers, and the vast majority had no criminal records (see figure). Of the 133 buyers with criminal records, 52 were explicitly prohibited by law from buying ammunition. Those 52 people bought 2.3 percent of the nearly 440,000 rounds of ammunition sold, amounting to more than 10,000 rounds.

Past studies have shown that guns and ammunition possessed by felons and others prohibited from owning weapons are more likely to be used in violent crimes than are weapons bought by people with no criminal histories, but there are no mechanisms to prevent ammunition purchases. Los Angeles and a few other cities require ammunition sellers to collect information about ammunition buyers, but in the past those records have not been routinely reviewed.

“If lawmakers want to prohibit the illegal sale of ammunition, they could extend the instant background checks required before guns are sold to also cover the sale of ammunition,” said report coauthor Greg Ridgeway. “But unless such a step is taken at the state level, a felon could simply purchase ammunition in a nearby city to avoid the check.”

Another alternative is for law enforcement officials to monitor the sales records of ammunition to gather tips about felons who might illegally possess firearms. “Ammunition logs have been used by Los Angeles area law enforcement officials to obtain search warrants that have led to the recovery of illegal firearms,” noted lead author and criminologist George Tita.

Felons might resort to underground dealers. However, a study conducted in Chicago communities with high levels of gun violence found that stricter enforcement of ammunition policies did not necessarily lead to a black market in the product.

Although the study focused on one part of Los Angeles, the researchers point out that the findings have implications for other states and nations that monitor firearm sales but not ammunition purchases.

Of 133 buyers with criminal records, 52 were explicitly prohibited by law from buying ammunition.

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**Few Who Purchased Ammunition Were Legally Prohibited from Doing So, But Those Few Still Bought More Than 10,000 Rounds in Two Months**

<table>
<thead>
<tr>
<th>Ammunition purchasers (2,031)</th>
<th>Ammunition purchasers with criminal record (133)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal record (133)</td>
<td>Prohibited from purchasing ammunition—felony record (30)</td>
</tr>
<tr>
<td>No criminal record (1,898)</td>
<td>Prohibited from purchasing ammunition—non-felony record (22)</td>
</tr>
<tr>
<td>Allowed to purchase ammunition (81)</td>
<td>10,050 rounds bought (2.3%)</td>
</tr>
</tbody>
</table>


NOTE: Ammunition was purchased over a two-month period (April and May 2004) from ten retailers in Los Angeles.
As for Implementation, Comprehensive School Reform Is Anything But

To improve student performance, more than 8,000 schools across the United States have adopted comprehensive school reform (CSR) models that are intended to align the core components of education with a coherent vision. The schools have used more than $2 billion in federal funds to implement various CSR strategies.

So far, evaluations have shown mixed results. “The effectiveness of any intervention depends on whether it’s delivered as its designers intended,” said Georges Vernez, lead author of a new RAND study on the topic. “Our research shows that schools are not fully implementing the CSR models they adopted.”

The study quantifies the levels of implementation of four different CSR models in 250 schools in two states (Florida and Texas). The implementation scores are based on a survey of principals and teachers, supplemented with in-depth case studies in 12 schools, allowing researchers to compare a large sample of CSR schools and to compare CSR schools with non-CSR schools.

As shown in the table, few CSR schools have implemented the core components very highly. For all four models, the mean (average) scores for the schools surveyed do not approach 2.0 (full implementation) in any component.

Regardless of the model chosen, some core components, such as curriculum and student assessments, were implemented more fully than others, such as methods of instruction and increasing parental involvement. But the study found that implementation falls short of the recommended levels.

In general, teachers reported only a lukewarm commitment to implementing a school’s model, with most feeling that the training received did not adequately prepare them to start using the model.

“One of the more surprising findings,” said Vernez, “was that, on average, all schools in the survey engaged in many of the same activities at the same frequency and level of intensity, regardless of whether schools used one of the four CSR models.” Only a handful of practices differed either among the types of model schools or between the model schools and their matched non-model schools.

The findings, if replicated in future studies, have several broad implications, with this particularly salient one: At the current level of implementation, CSR models are likely to have modest or no effects on student achievement.

There is significant room to raise the level of implementation. For instance, schools could ensure that teachers receive the necessary initial training and are committed to implementing the adopted models. Without such support, the implementation of CSR models cannot be expected to help schools meet the federal No Child Left Behind goal of 100-percent proficiency in reading and mathematics by 2014.


Surveyed Schools Are Not Fully Implementing Their Chosen Reform Models

<table>
<thead>
<tr>
<th>Core Component</th>
<th>Model 1 (36 schools)</th>
<th>Model 2 (42 schools)</th>
<th>Model 3 (93 schools)</th>
<th>Model 4 (79 schools)</th>
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<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>Percent Highly Implemented</td>
<td>Mean Score</td>
<td>Percent Highly Implemented</td>
</tr>
<tr>
<td>Curriculum</td>
<td>1.46</td>
<td>42</td>
<td>1.43</td>
<td>31</td>
</tr>
<tr>
<td>Methods of instruction</td>
<td>1.19</td>
<td>0</td>
<td>N/A</td>
<td>—</td>
</tr>
<tr>
<td>Governance</td>
<td>1.36</td>
<td>3</td>
<td>1.26</td>
<td>12</td>
</tr>
<tr>
<td>Student assessments</td>
<td>1.30</td>
<td>22</td>
<td>1.47</td>
<td>37</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>1.01</td>
<td>13</td>
<td>0.84</td>
<td>10</td>
</tr>
</tbody>
</table>

NOTES: Mean (average) scores range from 0 (no implementation) to 2.0 (full implementation). Ranges are low (0–0.39), medium-low (0.40–0.79), medium (0.80–1.19), medium-high (1.20–1.59), and high (1.60–2.0). N/A = not applicable, meaning that a component is not part of a model’s prescribed set of practices.
News

Public Spends Little to Provide Health Care for the Undocumented

Much political attention has focused on the public burden of providing health care for nonelderly undocumented immigrants. But a new RAND study in the November/December 2006 issue of Health Affairs by Dana P. Goldman, James P. Smith, and Neeraj Sood shows that a relatively small amount of U.S. tax money is spent on health services for this population.

Researchers analyzed information collected by the Los Angeles Family Neighborhood Survey, which interviewed families in 65 L.A. County neighborhoods during 2000 and 2001. The county has the largest concentration of immigrants in the nation. Nonelderly participants—those between the ages of 18 and 64—were asked about their health status, whether they had health insurance, the type and amount of care used, and their immigration status, a “very rare piece of information about immigrants,” said Smith.

After deriving estimates for L.A. county, the researchers extrapolated estimates to the national level. As shown on the left side of the figure, total national medical spending for nonelderly adults in 2000 was nearly $430 billion. Native-born residents accounted for 87 percent of the population but for 91.5 percent of the spending.

Foreign-born residents (including U.S. citizens, permanent residents, undocumented immigrants, and temporary legal immigrants) accounted for 13 percent of the population but for only 8.5 percent of spending. Undocumented immigrants, who constituted 3.2 percent of the nation’s population, accounted for only about 1.5 percent of medical costs, according to the study.

The lower medical spending is driven by lower utilization of health services. In L.A. County, many foreign-born residents had almost no contact with the formal health care system. Whereas only about a tenth of native-born residents had never had a checkup, that fraction jumped to a quarter for foreign-born residents and to a third for undocumented immigrants. Moreover, because L.A. County is known as an immigrant-friendly location for services, the national estimates may overstate undocumented immigrant service use and, thus, overstate medical costs.

One key reason for the lower use of services is that immigrants, especially the undocumented, appear to be much healthier than native-born residents.

The right side of the figure shows that foreign-born residents use less funding from public insurers (such as Medicare and Medicaid) and pay more for health care out of pocket than do native-born residents—a pattern even more pronounced for undocumented immigrants.

Given these findings, the study argues, the policy debate over immigration should focus not on health care costs but on a fuller analysis of the fiscal benefits and costs of immigrants. “A more comprehensive analysis would incorporate the taxes paid by immigrants. But it also should include other public benefits received—in particular, public school costs, where the costs of all types of immigrants, including undocumented immigrants, are likely to be much larger,” said Smith.

Undocumented Immigrants Account for a Small Amount of Medical Costs and Pay More for Health Care Out of Pocket Than Do Other U.S. Residents

<table>
<thead>
<tr>
<th>Percentage of population</th>
<th>Undocumented immigrants account for 3.2% of the population and 1.5% of total spending.</th>
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</thead>
<tbody>
<tr>
<td>Total national medical spending in 2000 (millions of dollars)</td>
<td>Native-born ($392,511 = 91.5% of total spending)</td>
</tr>
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</table>
New Study Suggests Three Steps to Improve Mental Health Care

According to the National Healthcare Quality Report, published by the U.S. Agency for Healthcare Research and Quality, only 4 of 179 quality indicators relate to mental health care.

“Mental health has not been well-represented in nationwide quality improvement initiatives, and it has not been clear how to accelerate progress,” said Kavita Patel, a RAND Corporation researcher and lead author of a study published in the May/June 2006 issue of Health Affairs.

The study makes a case for how to accelerate progress, identifying three steps. The first step involves expanding the range of mental health disorders for which quality improvement programs exist and adapting those programs for more diverse ages, groups, and service settings. For example, the strongest mental health quality improvement programs have centered on treating depression in well-established primary care settings (such as hospital-based outpatient clinics), but further progress is needed to adapt these programs to other current practice settings (such as those of individual practitioners or private group practices).

Second, the mental health system needs a better set of accountability mechanisms. Cognitive-behavioral treatment, for example, currently has no standards or certification requirements, and consumers have no easy way to identify practitioners who deliver the best quality care. The profession needs strong leadership to develop standards and minimum competency requirements, according to the study, which argues for harnessing market forces to help enforce them. For example, insurance firms could offer financial incentives for providers to seek additional training.

Third, health care financing should be linked directly to innovations in quality improvement and mental health care delivery. The study suggests one approach—pay-for-performance—which would link salary bonuses or other monetary rewards to quality indicators, such as patient satisfaction. Fully developing such an approach to mental health care would need to account for the system’s complexity—its division into public and private spheres—while balancing the needs for access, efficiency, and quality.

The study concludes that taking these three steps would require engaging the public in a meaningful fashion, and it outlines the roles that each group of stakeholders could play in taking each step. The table illustrates the potential roles for those involved in the first step.

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The mental health system needs a better set of accountability mechanisms.

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<table>
<thead>
<tr>
<th>Involving Multiple Stakeholders Is Key in Expanding the Range of Quality Improvement Programs for Mental Health Care</th>
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<tbody>
<tr>
<td><strong>Stakeholders</strong></td>
</tr>
<tr>
<td>Health care providers</td>
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<tr>
<td>Insurance companies</td>
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<tr>
<td>Researchers</td>
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<tr>
<td>Policymakers</td>
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<td>Professional health care organizations</td>
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<tr>
<td>Consumers</td>
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THE AMERICAN-LED intervention in Iraq—with its immediate goal of regime change and its ultimate goal of spreading democracy throughout the Middle East—has been the cornerstone of the Bush administration’s foreign policy. But as the situation continues to deteriorate in Iraq and the prospect of democracy there fades away, difficult questions have arisen about how history will judge the intervention and the ideas underlying it. Even more important, the outcome of the intervention could have serious ramifications for America’s future foreign policy.

Francis Fukuyama, director of the international development program in the Paul H. Nitze School of Advanced International Studies at Johns Hopkins University, addressed these questions in a wide-ranging discussion at the RAND Corporation. Drawing from his recent book, *America at the Crossroads: Democracy, Power, and the Neoconservative Legacy*, he focused on what has led to the current situation in Iraq, what effect that situation is having on U.S. foreign policy now, and what direction U.S. foreign policy should take in the future.

**A Series of Misjudgments**

Fukuyama noted that although he initially shared the neoconservative principles that motivated the Bush administration’s foreign policy, he was never persuaded by the administration’s rationale for the war in Iraq. According to Fukuyama, America finds itself where it is today in Iraq because of three fateful misjudgments.

First, he argued that the Bush administration applied a doctrine of preventive war, which was “eminently justifiable against al Qaeda,” to the rogue state proliferation problem presented by Iraq. “The latter is a very serious problem, but of a lower order of magnitude than the prospect of an attack by a stateless, nihilistic terrorist group potentially armed with weapons of mass destruction.”

Unlike preemption, which deals with imminent threats, preventive war tries to head off threats that are months or more often years in the future. The problem with such a strategy is that it requires the United States to be able to accurately predict the future, not just in terms of enemy capabilities but also in terms of the complex calculations that foreign leaders will make years hence. “In Iraq,” he said, “American knowledge of enemy capabilities—even its near-term capabilities with respect to weapons of mass destruction—was sorely deficient.”

This misjudgment was compounded by the American failure to account for the undercurrents of anti-American sentiments at the time of the 2003 intervention—“sentiments that had been brewing long before the Bush administration took office and that had centered on U.S. support for globalization,” according to Fukuyama. When administration policymakers formulated their neoconservative doctrine of “benevolent hegemony,” he continued, they naïvely assumed that the U.S. assertion of power in Iraq would be supported because it was so widely understood that American foreign policy was “simply more moral” than that of other countries.

The final misjudgment stemmed from the administration’s failure to heed the manifold lessons of nation-building in attempting to bring democracy to Iraq. As Fukuyama noted, RAND and other organizations, including many within the U.S. government, had accumulated and disseminated a great deal of knowledge about what is necessary for successful nation-building—in particular, knowledge about the levels of troops, money, and time required in a variety of nation-building environments.
Unfortunately, he noted, “the Bush administration made little use of any of this extensive body of knowledge.” The administration assumed that once Saddam Hussein was removed from power, there would be a relatively painless transition to democracy, as happened in Eastern Europe after 1989; when that did not happen, the administration was taken by surprise.

Avoiding a Backlash
The deepening failure in Iraq has yielded a bitter harvest of deleterious consequences for American foreign policy, according to Fukuyama. “One of the unfortunate legacies of the Bush administration is that its actions are being increasingly viewed as ‘toxic’”—something that has led to a growing movement in foreign policy circles toward what Fukuyama calls a Henry Kissinger–like “realism,” a more isolationist U.S. foreign policy, and a retreat from the world stage. Actors on both sides of the political aisle are now disparaging the promotion of democracy as an illegitimate activity and are increasingly phobic about any use of American power whatsoever.

Fukuyama views this stance as an overreaction to the over-militarized means used by the Bush administration to promote democracy abroad, not the ends. The failure of nation-building in one country, he suggested, should not discredit the notion of nation-building in every country.

Fukuyama believes that greater modernization and democracy will actually increase the alienation underlying terrorism in the short run. In the long run, however, democracy is a better bet than relying on illegitimate authoritarians. “The only way to get at political and social actors who support terrorist movements,” he said, “is to give them some political space in which to operate, hopefully under democratic rules.” As one example of how exercising power in a pluralistic setting can lead to a gradual process of political acculturation, he cited the Islamist PJD (Justice and Development Party) in Morocco, which has steadily adopted more moderate rhetoric over the past few years.

The Limits of Democracy Promotion
According to Fukuyama, the primary lesson that America should learn from its travails in Iraq is not that the United States should eschew promoting democracy abroad, but that there are limits to what any nation can do in promoting democracy abroad. “No country has ever been democratized without the people doing it themselves,” he noted. The demand must come from within.

But once democracy has taken root organically in a country, there is much that outsiders can do to support the process. This support includes monitoring elections, promoting civil society groups, providing open access to media, and helping to develop political parties.

“Ultimately, democracy is spread by the prestige and moral credibility of countries that are democratic,” Fukuyama said, pointing out that the United States was a beacon to Eastern European countries throughout the Cold War because of what America represented, not because of the way it used its military power.

The failure of nation-building in one country . . . should not discredit the notion of nation-building in every country.
Steady Under Fire
All-Volunteer Force Proves Its Resilience, So Far

By Bernard D. Rostker

Bernard Rostker is a senior RAND fellow who has held many senior government posts. In 1979, he was appointed director of the Selective Service System by President Jimmy Carter. From 1994 to 1998, Rostker served as assistant secretary of the U.S. Navy for manpower and reserve affairs, and from 1998 to 2000 as the 25th undersecretary of the U.S. Army. From 2000 to 2001, he served as undersecretary of defense for personnel and readiness, the official who is the U.S. Secretary of Defense’s senior policy adviser on recruitment, career development, pay, and benefits for 1.4 million active-duty military personnel, 1.3 million National Guard and National Reserve personnel, and 725,000 civilian employees of the U.S. Department of Defense.

America’s all-volunteer military has been an overwhelming success since its inception in 1973, but the force faces an unprecedented challenge posed by the wars in Iraq and Afghanistan. The all-volunteer military has become the world’s strongest fighting force, attracting recruits who are better educated and more skilled than those who served under the U.S. military draft. However, after four years of war with mounting casualties in Iraq, continuing insurgent attacks in Iraq and Afghanistan, and multiple additional deployments throughout the world, the all-volunteer force has experienced recruiting shortfalls for the first time since the late 1970s.

To date, the all-volunteer force has done the job. Under the draft, people served because we in America made them serve. Under the all-volunteer force, people serve because they want to serve, and they are serving very well in the most trying of circumstances. Short of a total collapse of the system, there is no better way to, in the words of the U.S. Constitution, “raise and support armies” and “provide and maintain a navy.”

The all-volunteer force has shown it can be successful during periods of conflict as well as during peacetime. Nevertheless, the sustained conflicts in the Middle East pose obstacles not faced before. Reenlistment rates have remained high in spite of the wars in Iraq and Afghanistan, sustaining the overall size of the force. But the U.S. Army, Army National Guard, and Army Reserve have faced difficulty recruiting new personnel. There are no guarantees with a volunteer force. Only time will tell if the current level of operations can be sustained into the future.

The volunteer force has proven much more resilient than we had any reason to hope it would be and has far exceeded the early estimates of those who put it into place. But logic tells us there is a limit. Just because we have not yet broken the force does not mean it cannot be broken.

Evolution of the All-Volunteer Force

The United States has conscripted its armed forces for only 35 of its 230 years—nearly all in the 20th century—and the American people have been generally willing to accept the practice of conscription when service has been perceived to be universal. That acceptance began to erode in the 1960s. There were five major reasons:

• **Demographics.** The size of the eligible population of young men reaching draft age each year was so large and the needs of the military so small in comparison that, in practice, the draft was no longer universal.

• **Cost.** Obtaining enough volunteers was possible at acceptable budget levels.
• **Moral and economic rationale.** Conservatives and libertarians argued that the state had no right to impose military service on young men without their consent. Liberals asserted that the draft placed unfair burdens on the underprivileged members of society, who were less likely to get deferments.

• **Opposition to the war in Vietnam.** The growing unpopularity of the Vietnam War meant the country was ripe for a change to a volunteer force.

• **The U.S. Army’s desire for change.** The army had lost confidence in the draft as discipline problems among draftees mounted in Vietnam.

In 1969, President Richard Nixon created the President’s Commission on an All-Volunteer Armed Force, also known as the Gates Commission. It considered key military-manpower issues, including personnel supply and demand, attrition and retention, and the ideal mix of career and noncareer members in the context of management efficiency and personal equity.

The commission concluded that the nation’s interests would be better served by an all-volunteer force rather than by a combination of volunteers and conscripts. In 1971, Nixon signed a law to end the draft and to put the selective service structure on standby. After a two-year extension of induction authority, the end of the draft was formally announced in January 1973.

### Changes for the Better

The quality of military personnel has improved since the end of the draft, as measured by scores on intelligence tests. The percentage of new recruits with high school diplomas has surged (see Figure 1). The proportion of career personnel and the proficiency and professionalism of the force have also dramatically increased (see Figure 2). A largely unexpected consequence of moving to a professional military with better pay was a higher rate of reenlistment and a sharp rise in the size of the career force relative to the overall force. At the same time, the all-volunteer force has made the military more representative of the nation as a whole.

For 26 years, the U.S. Department of Defense has reported annually on social representation in the U.S. military. The 2004 report noted the following:

• **Education level.** The most recent statistics show that 92 percent of new enlistees to the active-duty force are high school graduates. The figure for the reserve components is 87 percent. This compares favorably with both the 1973 goal of 45 percent and the 2002 civilian graduation rate of 79 percent. In addition, 95 percent of active-duty officers have baccalaureate degrees, and 38 percent have advanced degrees.

• **Mental aptitude.** Today’s American military scores well above the civilian population on standard tests of intelligence (see Figure 3).

• **Marital status.** The larger career force means that the number of service members who are married has increased. Today, 49 percent of enlisted personnel are married, compared with 40 percent in 1973. Among active-duty officers, 68 percent are married.

• **Gender.** Today, 15 percent of the active-duty enlisted force is female, compared with less than 2 percent when the draft ended. Sixteen percent of the officer corps is female. Despite these improvements, women are still underrepresented in the military.
• Race and ethnicity. In fiscal year 2002, African Americans were slightly overrepresented among new enlistees relative to the civilian population: 16 percent compared with 14 percent. However, this is considerably more equitable than was the 1973 level of 28 percent. Latinos are currently underrepresented, making up 16 percent of all civilians but only 11 percent of new enlistees (see Figure 4).

• Socioeconomic status. Recruits come primarily from families in the middle or lower middle classes. Few recruits come from upper-income families, leading some to criticize the all-volunteer military. But historically, few people from elite backgrounds have ever served in the military except during times of mass mobilization such as occurred during World War II.

• Geographic representation. The South continues to be overrepresented, with more than 41 percent of enlistments compared with 35 percent of the civilian population (see Figure 5).

Pillars of Success

America’s experience with the all-volunteer force suggests four principal reasons for its success: leadership, analysis, targeted programs, and adequate budgets. Whenever one of these factors has been missing over the past 30 years, the force has faltered.

The first factor is leadership from top management. The all-volunteer force would not have come into being when it did without the leadership of President Nixon, who began the planning process and announced the formation of the Gates Commission within weeks of taking office in 1969.

Within the military, U.S. Army General Maxwell Thurman is considered by many as the single most important person in the history of the all-volunteer force, because he taught the Pentagon how to recruit. He often said that it may be called an all-volunteer force, but it is really an “all-recruited force.” More than any other uniformed leader, Thurman recognized throughout the 1980s that the military had to compete aggressively in the civilian labor market for American youth—and had to do so with the right tools based on market research and statistical analysis.

The second factor, then, is the use of quantitative analysis to test, adjust, and evaluate policies. Almost every change to the all-volunteer force has been made only after research demonstrated its likely effect.

*2002 statistics were the most recent data available at the time of publication.
The research of the 1960s and early 1970s reassured decisionmakers that such a force might be possible at acceptable budget outlays. In the 1970s and 1980s, test programs demonstrated the value of advertising, educational incentives, and bonuses in encouraging enlistment. Analytical evidence later helped reform the compensation system.

Studies of enlistee test scores and job performance proved what now seems logical but was once very controversial: People who score higher on standardized tests do better on the job than do those who score lower. The resulting emphasis on quality attracted capable people and led to the increasing professionalism of the military. And ever since the fall of the Soviet Union in 1991, which eliminated the threat that had dominated national security strategy for four decades, personnel research has helped defense managers make the adjustments necessary to transform the post–Cold War force into a smaller, more agile, and more engaged one.

The third factor is the implementation of targeted programs to attract the required types and numbers of recruits. To appeal to high-quality youths, the services had to craft marketing strategies and advertising campaigns that conveyed the benefits of military service; offer money for education, bonuses for enlisting in certain occupations, and enlistment tours of different lengths; and provide career opportunities that had civilian relevance. The services also had to train a professional and motivated recruiting staff. Finally, the key to creating a truly outstanding force was persuading the most capable members to reenlist. Careerists demanded not just good pay but also quality-of-life benefits, such as good housing, child care, health benefits, family advocacy programs, and military stores. It was crucial that the services become “family friendly.”

The fourth factor required for success is adequate financial resources. The defense budget must be large enough to accomplish three things at once: support pay raises that keep pace with both inflation and civilian-sector pay increases; provide resources for advertising, recruiters, bonuses, and educational benefits; and fund the military retirement program and quality-of-life initiatives.

**Old Questions Resurface**

In 1969, Crawford Greenewalt, a member of the Gates Commission, shared his misgivings in a memorandum to the chairman, former Secretary of Defense Thomas Gates, Jr. “While there is a reasonable possibility that a peacetime armed force could be entirely voluntary,” wrote Greenewalt, “I am certain that an armed force involved in a major conflict could not be voluntary.” So far, Greenewalt’s reservations have not been borne out.

But given the ongoing war in Iraq—with casualties rising, enlistments dropping, deployments being extended, the situation on the ground deteriorating, and a majority of the American public no longer believing that the war is worth fighting—the issue of recruiting enough volunteers to maintain the U.S. military at required levels is again relevant. With nearly 150,000 U.S. troops in Iraq and Afghanistan today, military commanders point to the outstanding job being done in these nontraditional conflicts. Remarkably, while enlistments have fallen off, retention remains at historically high levels. There were initial fears that soldiers would not reenlist if they had to deploy twice into combat zones. Yet some soldiers are now completing their third and fourth tours. U.S. troops have demonstrated their continuing commitment and willingness to serve.

Some critics say that one solution to the current dilemma would be to reinstate the draft as part of a universal system requiring all young people to commit time to national service of some type. But creating a system to employ all four million young people who reach adulthood every year would be very costly, if such a system were to be universal. And if not everyone were to serve, we would be in the same quandary in which we found ourselves during the 1960s.

A final judgment on the all-volunteer force has not been made. The 40-year partnership between policymakers and policy analysts has produced not only the finest fighting force the United States has ever fielded but also one that is broadly representative of the American people. The past 30 years—particularly the experiences in Iraq and Afghanistan—have proven that an all-volunteer force can be sustained in peace and during the initial periods of military conflict. Whether or not an all-volunteer force can be sustained over longer periods of ongoing conflicts and recurring deployments, as in the current situation, has yet to be determined.

**Related Reading**

Three Decades of Experience with the All-Volunteer Force

SEVERAL RECURRING THEMES characterize the evolution of the all-volunteer force: leadership in overcoming institutional resistance to change, analysis in forecasting the costs and benefits of alternative courses of action, determination in identifying the right people to recruit and how to recruit them, the difference that pay and benefits make in recruiting and retaining personnel, and the need for an ongoing budgetary commitment to sustain success.

At times since 1973, policymakers either allowed military pay to fall too far behind civilian earnings or curtailed recruiting and personnel programs. The cutbacks often came at the worst times: when the civilian economy was strong and youth unemployment was low. Each time, recruiting and retention suffered. It took a large infusion of resources in 1978 and 1979 to correct the oversight before recruiting turned around in 1980, and it took even larger increases in 1998 and 1999 before recruiting rebounded in 2000.

As noted by former U.S. Army General Maxwell Thurman, a principal architect of the all-volunteer force: It might be called an all-volunteer force, but it is really an “all-recruited force.”

1970—Critical Breakthrough by Gates Commission Staff Was to Estimate the Supply of New Recruits, Pointing to the Pay Increases Needed for an All-Volunteer Force

Economists transformed the blue area beneath a normal frequency distribution (top) into a point on an aggregate enlistment supply schedule (above), showing that small increases in expected military benefits would attract large increases in recruits—up to that point.

February 21, 1970—Gates Commission (above) informs President Richard Nixon (center right): “We unanimously believe that the nation’s interest will be better served by an all-volunteer force, supported by an effective stand-by draft, than by a mixed force of volunteers and conscripts.”

1976—Recruiting funds are cut sharply.

1979—All four services fail to meet their recruiting goals. Army falls short of its mission by 17 percent. Quality of recruits falls below minimum levels established by the U.S. Department of Defense.

1979—Army General Maxwell Thurman institutes “Be All You Can Be” advertising campaign.

U.S. Army General Maxwell Thurman (1931–1995), shown here in 1989, was an ardent supporter of the all-volunteer force. During the difficult years of the late 1970s and early 1980s, he argued that investments in “human capital” early on would ultimately yield great returns in an efficient and well-trained fighting force. In this effort, he challenged both the U.S. Department of Defense and the U.S. Congress to allocate the resources needed to recruit and to retain high-quality personnel.
1979—The armed services discover a “tragedy of errors” involving four years of inflated enlistee test scores on the Armed Services Vocational Aptitude Battery.


1980 and 1981—Congress legislates two large pay raises for the military: 11.7 and 14.3 percent, respectively.

1984—Congress passes Montgomery GI Bill, providing a “contributory educational program” for all who enlist after June 30, 1985. Enlistees may draw benefits upon completion of service.

1991—Operation Desert Storm (Persian Gulf War) proves “the all-volunteer force worked,” according to a Pentagon report. “The enlisted force exhibited unprecedented skill, commitment, maturity, and professionalism. The entire officer corps . . . consistently demonstrated skill, excellence, leadership, and professionalism we have not seen in this century—if ever.”

December 25, 1991—Soviet Union ceases to exist. The end of the Cold War prompts leaders of both major political parties to champion a smaller, transformed force throughout the 1990s despite the rapid spread of nontraditional operations.

1998 and 1999—Congress approves large increases in recruiting resources, including pay raises, bigger advertising budgets, and a “college-first” program.

Since 2003—With nearly 150,000 U.S. troops in Iraq and Afghanistan, the all-volunteer force is being tested as never before.

2004—U.S. House votes 400 to 2 to reject a return to conscription.

Delta Dawning
Gulf Coast Efforts Look Beyond Recovery Toward Lasting Renewal

By John Godges

John Godges is a RAND communications analyst and editor-in-chief of RAND Review.

Ben Springgate never thought he’d go home so soon after his medical residency. Nor did he foresee that his professional calling toward community-based health care for the poor would be put to such an early and grueling test.

A native of New Orleans, he completed his residency at Tulane University in his hometown in late June of 2005. He then moved to Los Angeles to start work as a Robert Wood Johnson Clinical Scholar at UCLA, which led him to work on RAND research teams as well. Troubled by the health disparities he had observed across the country, he was planning to conduct community-based participatory research to improve health care services for homeless and low-income people.

Then, on August 29, 2005, Hurricane Katrina struck. In one fell swoop, the storm shifted the nation’s attention to the reality of aching poverty deep in the country’s heart and soul.

“I watched the television reports in horror,” recalled Springgate, 34. “I couldn’t just simply sit back and watch. I had to try to go back and see if I could contribute somehow.”

His bosses at RAND and UCLA supported him. Two days later, he was home. “It just so happened that I’m in a field where there are persistent needs as a result of the disaster.”

Since his return, Springgate’s work has broadened from emergency care to community planning. At the outset, he triaged evacuees at Louis Armstrong New Orleans International Airport, recruited and deployed volunteer physicians to work in evacuee shelters, and helped coordinate health care for emergency responders in a French Quarter hotel ballroom and outside a Wal-Mart. In the ensuing months, he and his colleagues have opened new nonprofit clinics in neighborhoods that were left without any local health services.

“The community can learn two important lessons from the experience,” said Springgate. “First, we can’t assume we’re going to be spared from these storms. We need to plan ahead and recognize what we need to do to limit the potential damage and loss. And second, as terrible as the disaster has been for the community, I’m hoping there’s an opportunity now to overcome the inertia that existed previously and to improve on some components of the community that weren’t functioning optimally before.” He cited a reformed school system, smarter building practices, and improved health care quality and access as a few areas of top priority.

RAND’s commitment to the region has broadened in analogous ways. From an initial focus on emergency response and recovery in the most catastrophically inundated areas, the preponderance of RAND work has since shifted toward helping the entire region reshape itself into something better than it was before the deluge of disappointment and heartbreak that came with Hurricane Katrina can sow the seeds of renewal incubated and rooted in the Gulf region.
the hurricane hit. The hope is that the deluge of disappointment and heartbreak that came with Hurricane Katrina can sow the seeds of renewal incubated and rooted in the Gulf region.

“What we have here is an opportunity to make a strong, nationally credible, nonpartisan resource available in this region,” said George Penick, director of the RAND Gulf States Policy Institute, which is based in Jackson, Mississippi. The purpose of the institute, created in the wake of the hurricane, is to provide a long-term capacity to develop informed public policy in Louisiana, Mississippi, and Alabama.

RAND studies in the region initially have focused on the repopulation of New Orleans, affordable housing in Mississippi, student displacement and mental health, water resource management, and health care. Studies that are under development aim to help regional leaders strengthen an assortment of public and private responses related to housing, health, education, infrastructure, the economy, the environment, disaster preparedness, and government performance.

“These are issues that needed a great deal of attention before Katrina and need even more attention after,” said Penick, who had served as president of the nonprofit Foundation for the Mid South before joining RAND. “They are long-term, transformational issues, and they cannot be solved overnight. They are daunting. But now is our opportunity to confront them.”

**Repopulation of New Orleans**

The limits of local recovery efforts are best embodied by the city of New Orleans itself. A RAND team led by demographer Kevin McCarthy has projected that the population of New Orleans will rebound by about half within three years of Hurricanes Katrina and Rita. By September 2008, the population of New Orleans will reach an estimated 272,000—or 56 percent of the pre-Katrina population of 485,000.

The homes of 55 percent of the pre-Katrina population suffered severe damage when the levees were breached and deep floodwaters inundated parts of the city. “The extent of rebuilding in the most severely devastated areas of the city will largely determine the pace of repopulation and also the total future population,” said McCarthy.

Figure 1 maps the neighborhoods of New Orleans according to their flood depths and the consequent severity of housing damage experienced as a result of Hurricane Katrina. Areas in the severe damage category include the largely poor and African American communities of Gentilly and the Lower Ninth Ward, as well as the mostly middle-class and white community of Lakeview—all of which were swamped with more than four feet of water. The severely damaged areas accounted for 52 percent of all pre-Katrina New Orleans households, home to 55 percent of the city’s residents.

At the other extreme, about 25 percent of the pre-Katrina population was not exposed to flooding, and their housing likely suffered little or no floodwater damage. These neighborhoods—including the whiter, wealthier French Quarter and Garden District—are perched on the natural levees on both sides of the Mississippi River.

The repopulation of the “high and dry” areas has probably already exceeded more than 100 percent of pre-Katrina levels, as more people have crowded into the limited supply of safe and available housing. Future housing redevelopment is likely to be concentrated in these areas as well. In contrast, the RAND team has projected that repopulation in the severely damaged areas will reach just 30 percent by 2008 (see Figure 2).

“New Orleans before Hurricane Katrina was a poor city that was highly divided by race and class,” said McCarthy. “Many poor residents were tenants who paid extremely low rents.” These people may no longer be able to afford the higher rents that could
be demanded for reconstructed dwellings. “There are likely to be major demographic and socioeconomic disparities in the repopulation of New Orleans,” McCarthy concluded.

**Sustainable Affordable Housing**

In Mississippi, three coastal counties have become a laboratory for new types of affordable housing that could not only shelter displaced residents but also enhance the housing stock, economies, and natural environments of communities statewide. The prospect of building innovative kinds of affordable housing typifies the promise of going beyond “rebuilding” toward “reshaping” the Gulf Coast into something better than ever.

The most devastated areas of Mississippi are its coastal counties of Hancock, Harrison, and Jackson, where the storm surge ruined stately waterfront homes as well as modest rental units. Generally, though, high levels of poverty and low levels of home ownership characterize the counties. A substantial share of the destroyed homes in Mississippi were also built before 1980 and thus did not adhere to updated building safety codes that stipulate higher foundations and more wind-resistant walls and roofs.

“As in New Orleans, the challenge of recovering from the hurricane has been exacerbated by the fact that some of the poorest communities were also some of the hardest hit,” said Jack Riley, who launched the study of affordable housing in Mississippi as associate director of RAND Infrastructure, Safety, and Environment.

His RAND colleagues estimated that 81,000 homes—more than half the housing stock in the coastal Mississippi counties—were exposed to either wind or flooding or both. Because households with income levels below the U.S. median occupied about a third of these homes, the team suggested that 27,000 affordable housing units might need to be rebuilt within the three counties alone.

“Housing is defined as “affordable,” said Riley, when a family does not need to spend more than 30 percent of its income on rent or on mortgage payments, insurance, and property taxes. RAND has proposed three additional guidelines for the Gulf Coast: There should be an adequate supply of affordable housing across multiple income levels; new affordable housing units should meet sustainable building and design standards; and affordable housing should be located within a reasonable distance of suitable employment opportunities.

RAND researchers have presented Mississippi elected officials with a menu of options to pursue these guidelines. To oversee housing recovery efforts, for example, Mississippi could create a new state entity that would set spending priorities, educate residents about rebuilding, and coordinate housing redevelopment with other regional planning goals. The oversight and coordination would accelerate the rebuilding.

To increase the supply of affordable housing, Mississippi could create housing trust funds (possibly

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**Figure 1—Flooding Was Most Severe in Low-Lying Areas, While Neighborhoods on Natural Levees Had No Flooding**

**Figure 2—Projected Repopulation of New Orleans Neighborhoods Depends on the Depth of Flooding**

infused with cash from retail, tourism, gambling, or oil revenues); encourage employers to offer housing assistance to employees; give developers incentives to build more affordable units; adopt zoning incentives that favor mixed-use development; work with community land trusts or nonprofit groups to manage long-term affordable rental units; and offer low-interest mortgages to qualified low-income homeowners.

To make affordable housing safer, Mississippi could mandate tougher minimum building codes in hurricane-prone areas. The state could also develop safety codes specifically for modular housing, and modular-housing factories could be opened in communities that need lots of rebuilding—and employment.

To sustain affordability for the long term, Mississippi could target the notoriously high maintenance and utility costs of cheaply built, energy-inefficient affordable housing units. The state could offer incentives for builders, lenders, and insurers to construct, finance, and reduce premiums for homes that use less water and energy.

And to promote greater local involvement in rebuilding efforts, Mississippi could launch a program for training affordable-housing contractors; hire and train more building code officials; and incorporate community feedback into state and local housing decisions. Mississippi communities will benefit greatly if the local workforce can play a larger role in rebuilding, and the efforts will be more successful if supported by community groups.

“From the earliest days after Hurricane Katrina, it was obvious that housing for displaced coast residents would be the dominant issue for a long time,” said Mississippi Governor Haley Barbour. “I certainly welcome specific recommendations that enhance the strategic rebuilding and renewal plan that is under way.”

In October 2006, the governor announced that the National Association of Realtors and the Mississippi Association of Realtors had donated money to help RAND extend its study of housing needs along the Mississippi coast. The study will compare the damage done across various housing submarkets; assess which ones are likely to rebuild on their own or with existing assistance programs; and identify what further initiatives might offer the greatest promise for assisting those Mississipians, particularly renters in search of affordable housing, for whom the available programs and resources are inadequate.

“The state of Mississippi and the cities and counties along the Gulf Coast have a huge opportunity to create dynamic, diverse, and economically vibrant communities,” said Penick enthusiastically. “Affordable housing will be critical to rebuilding the economy in coastal Mississippi. If these efforts succeed along the coast, they could also be used to reduce the affordable-housing gap in other areas of the region that weren’t so affected by Katrina.”

**Student Displacement and Trauma**

A RAND study of Louisiana public schools in the wake of Hurricanes Katrina and Rita has found that the storms displaced nearly 200,000 students—more than a quarter of the state’s pre-storm enrollment. More than 81 percent of the displaced students came from the most populous parishes in the heavily hit areas: Orleans and Jefferson parishes in the east (from Hurricane Katrina) and Calcasieu Parish in the west (from Hurricane Rita).

The displacement persisted throughout the entire 2005–06 school year, with 55 percent of the displaced students ending the year outside their original schools (see Figure 3). The students who remained displaced were disproportionately minority students and those who had been achieving poorly prior to the storms.

**The prospect of building innovative kinds of affordable housing typifies the promise of going beyond “rebuilding” toward “reshaping” the Gulf Coast into something better than ever.**
But even among those students who have returned to their original schools, “a substantial amount of schooling was lost, and the effects of the storms linger,” said John Pane, a RAND education researcher. From a survey of Louisiana school principals, he has discovered that the displaced students, both those who have returned and those who have enrolled elsewhere in the state, exhibit several common symptoms of trauma. The displaced students are more likely than others to engage in fighting, arguing, bullying, eating alone, playing in isolation, and violating school rules; and less likely to engage in school clubs, activities, social events, or sports teams.

“Principals frequently reported that displaced students were more likely than preexisting students to need mental health counseling,” noted Pane. “It will be necessary over the coming years to help these students recover and to prevent any further damage from untreated mental health problems or continued loss of schooling.”

More than a year after the hurricanes, some school mental health professionals in Louisiana, Mississippi, Alabama, and Texas still perceive a need for mental health care for their students, while others think the students have settled into their new schools and are adjusting well. In either case, the majority of the professionals interviewed by RAND have expressed a limited ability to implement mental health programs for their students because of shortages in funding and in trained staff.

To help both the students and the schools, RAND has designed a tool kit, or guidebook, that school administrators can use to find mental health programs for students exposed to traumatic events, such as violence or natural disasters. The tool kit compares 24 programs that have been used by schools across the country and in nations beset by ongoing wars and acts of terrorism. The kit outlines which programs serve which student needs. It also describes the time, training, and other resources needed by school officials to implement each program and discusses potential sources of funding for implementation.

“Following Hurricanes Katrina and Rita, schools were in a unique position to help displaced students but had limited information about how to help,” said Lisa Jaycox, a RAND behavioral scientist who spearheaded the kit’s development. “It is essential that schools know what is out there so that they can choose the program that best fits their students’ needs and for which they have the appropriate resources.”

Among the programs described in the kit are the Friends & New Places program, used by the Dallas Independent School District to help 1,000 students displaced by Hurricane Katrina; the UCLA Trauma/Grief Program for Adolescents, a program used in New York City schools following the terrorist attacks of September 2001 and in schools in postwar Bosnia; and Cognitive-Behavior Intervention for Trauma in Schools, a program designed by RAND, UCLA, and the Los Angeles Unified School District to treat students exposed to any form of trauma.

“Exposure to traumatic events can lead to anxiety and depression and cause some students to act out in school, at home, and among their peers,” said Jaycox. “These programs, which have been developed specifically for use in schools, can reduce emotional and behavioral problems while also fostering resilience for future events.”
Flood Zone Management

History shows that building “bigger and better” flood protection systems in the aftermath of disastrous storms is not always the best policy. Instead, the best way to reduce future losses of life and property is sometimes to surrender land to the water. By forgoing development of floodplains or allowing wetlands to reclaim land, policymakers can protect the public, safeguard the economy, and manage natural resources.

“The critical concept that flood damage control includes conceding land to the water from time to time is a psychologically difficult one,” acknowledged James Kahan, a RAND social psychologist whose team of researchers chronicled the lessons learned from four major floods around the world during the latter part of the 20th century. “There is an inherent bias toward recreating what used to be. But there are times when an excess of cure can be worse than the disease.”

For at least five decades, the Gulf Coast wetlands that form a natural hurricane protection system around the Mississippi delta have been eroded by the expansion of levees, the dredging of canals and shipping channels, and the ongoing pumping of oil and gas. All these activities have caused the naturally restorative sediment of the Mississippi River to flow out to the deep waters of the Gulf of Mexico rather than to replenish the wetlands.

To glean lessons that might apply to the Gulf Coast recovery effort, Kahan and his team focused on the process of recovery from the four historical floods. They are Vanport, Oregon, where the Columbia River crashed through a protective dike on Memorial Day of 1948; the Dutch province of Zeeland, where high tides and a huge storm overwhelmed the sea defenses in January of 1953; the upper Mississippi River region, where extensive river flooding submerged the surrounding communities in the summer of 1993; and the Yangtze River in China, where a similar inundation occurred five years later (see the table).

The historical cases illustrate an evolution in thinking that has taken place over the past 60 years, said Kahan. “All illustrate the evolution from flood control to a broader notion of integrated water resource management.” The shift goes from a near-exclusive focus on structural means of controlling floods (such as building dams and levees) to the inclusion of nonstructural means (such as zoning laws and other regulations) in order to stretch water resources as far as possible, to allocate them equitably across different social and economic groups, and to protect the water resources and their associated ecosystems.

In Oregon, the part of Portland that was once Vanport has since become a park and a major recreational center for the city. The remarkable aspect of Vanport is that it was never rebuilt. This owes less to enlightened

<table>
<thead>
<tr>
<th>Case</th>
<th>Date</th>
<th>Geographic Location</th>
<th>Type of Catastrophe</th>
<th>Population of Affected Area</th>
<th>Lives Lost</th>
<th>Economic Damage (in U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanport</td>
<td>May 30, 1948</td>
<td>Columbia River basin near Portland, Oregon</td>
<td>Failure of enclosing dike during river flood</td>
<td>3 million</td>
<td>15–32a</td>
<td>$100 million</td>
</tr>
<tr>
<td>Zeeland</td>
<td>January 31, 1953</td>
<td>Southwest part of the Netherlands</td>
<td>Storm surge overwhelms sea defenses</td>
<td>300,000</td>
<td>1,835</td>
<td>$800 million–$1.1 billiona</td>
</tr>
<tr>
<td>Mississippi</td>
<td>June to August 1993</td>
<td>Upper Mississippi River</td>
<td>River flood overwhelms levee system</td>
<td>64 million</td>
<td>47–52a</td>
<td>$16 billion</td>
</tr>
<tr>
<td>Yangtze</td>
<td>June to August 1998</td>
<td>Yangtze River basin, China</td>
<td>Severe river flood exceeds defenses</td>
<td>71 million</td>
<td>1,562</td>
<td>$20.5 billion</td>
</tr>
<tr>
<td>Katrina and Rita</td>
<td>August and September, 2005</td>
<td>U.S. Gulf Coast</td>
<td>Hurricane storm surges overwhelm levees and coasts</td>
<td>38 million</td>
<td>1,840–2,000a</td>
<td>$85 billion–$91.2 billiona</td>
</tr>
</tbody>
</table>

a Number varies depending on source.

“There’s an extraordinary commitment among people who have returned to try to build something new. There’s unprecedented collaboration and selflessness.”

water management policy than to widespread ambivalence about this federally built city that was created to house out-of-state residents—many of whom were black—who had come to build Liberty ships during World War II. Nonetheless, Vanport proved that if the social, political, and cultural circumstances permit, recovery need not be an attempt to restore the status quo but can instead serve broader societal purposes.

In the Netherlands, the 1953 storm triggered a rethinking of water management that continues to this day. The centuries-old Dutch tradition of building ever-higher dikes gave way to a combination of dikes, dams, and storm surge barriers that remain open except during major storms. In this way, the restoration preserved the economic value of fisheries and mussel beds as well as the maritime ecology. Today, the region preserves its agriculture and draws tourists, not least because of these striking technological innovations.

In a stunning revolution for the Dutch, leading policymakers are currently proposing that some land once wrested from the sea be returned. Historically pioneers in claiming land from the sea, the Dutch are now again at the frontier of water management in their willingness to give land back to the sea in exchange for enhanced safety, economic value, and environmental preservation.

The 1993 flood along the upper Mississippi River exposed the limits of levees that had been constructed by local and federal governments throughout the preceding 150 years. In response, the federal government asked for advice from the Interagency Floodplain Management Review Committee. It called for major changes in U.S. floodplain policy, particularly less development in floodplains and more individual liability for those living there. However, development in Midwestern floodplains has continued to grow since 1993. Alternatives such as property buyouts, wetlands restoration, and insurance reforms have not been employed as extensively as recommended. “Apparently,” a 2004 editorial in the St. Louis Post-Dispatch groaned, “we have learned nothing from the flood.”

In contrast, after the Yangtze flood and mudslides of 1998, the Chinese government explicitly stated that what is important is not to control but to manage water resources. In addition to reinforcing levees, dredging riverbeds, and completing the massive Three Gorges Dam, Chinese water management policy now also emphasizes creating mountain forest preserves, returning agricultural lands to forests and lakes, and demolishing dikes to create floodplain water catchment areas.

“From a water management point of view, the Yangtze River provides close to an ideal case,” said Kahan. “A multilevel integrated water management system has been put into place that reflects learning from previous experience. Of course, all this has occurred within a culture that accepts top-down direction and control to an extent that is unacceptable in most Western cultures, much less the American one.”

He hopes, though, that Gulf Coast leaders can see the promise that lies in the historical lessons. “Out of tragedy can come opportunity,” he affirmed. “Disruption of the status quo can create political conditions for broader-based social and economic change that might otherwise have been delayed or might not have happened at all.”

Community Health
Numerous RAND projects are trying to help local, state, and federal leaders make the Gulf Coast better, stronger, and healthier than it was before. RAND is helping the U.S. Army Corps of Engineers develop a long-term plan to protect Louisiana from hurricanes and to restore its coastal habitats and ecosystems. Another RAND project is culling the lessons that can be derived from the responses to 13 natural disasters in 11 countries. A pending RAND “roadmap” for the Gulf South is charting how various regional factors can help or hinder future recovery efforts.

Meanwhile, RAND health researchers in New Orleans, Baton Rouge, Houston, and San Antonio continue their efforts to understand the physical and
mental health consequences and needs of hurricane evacuees and returnees. Among them is physician Ben Springgate.

“Overall,” he reported from New Orleans, “most evacuees have not returned to their original neighborhoods or communities. Many who have returned are experiencing significant symptoms of mental distress. The prevalence of symptoms of depression, anxiety, and post-traumatic stress disorder has about doubled.” Most of his patients tell him they’re not sleeping at night, they’re crying unexpectedly all the time, or they’re drinking more. “The day-to-day stress is palpable,” he said.

In interviewing Katrina survivors, he has found that they have less access to health care and medications now than before the hurricane. But the community has responded by creating new models of care, such as mobile medical units and church-based health services. Many local organizations are now working side by side to serve the returning population.

“These clinical partnerships would not have existed prior to the storm,” said Springgate. “The good news is that the community is drawing on novel resources and pursuing innovative adaptations to fill the gaps in care.”

He has organized a partnership between local community groups and national academic institutions, including RAND, UCLA, and Tulane. Consequently, community members are beginning to use research to assess their health care challenges and to resolve them.

People have also found great support from religion, spirituality, and one another, he emphasized. “There’s an extraordinary commitment among people who have returned to try to build something new. There’s unprecedented collaboration and selflessness among local agencies trying to fill the gaps and develop services for the people who were affected. Despite the day-to-day frustrations and lows, there is hope and tremendous civic pride. People really want to see the community bounce back and succeed.”

He finds inspiration from those in his midst. “A lot of people could leave or never come back. It’d be understandable if they did. But I honestly believe we have the ability to take advantage of this break in the momentum and become a community that has a better education system, is protected from natural threats, has a robust economy, and is still loved as much as ever for offering such unique music, architecture, culture, and cuisine.”

He foresees the work ahead as a “ten-year process,” specifically with respect to building enough affordable housing for low-income workers. “We are in solidarity with the displaced people who still hope to return to New Orleans,” he declared. “We are trying to make it possible for them to return to the home that they would want to return to: one that is better than before. We’re not giving up. We’re here for the long haul.”

Related Reading

Expanding Coverage to the Uninsured of Louisiana, Kavita Patel, Susan Marquis, Sai Ma, Ben Springgate, RAND/WR-311, 2005, available online only, at www.rand.org/pubs/working_papers/WR311/.


Road Less Traveled

Four Developing Countries Blaze New Trails to Better Health

By Thomas W. Croghan

Tom Croghan directed this study as a senior natural scientist at RAND. He is now a senior fellow at Mathematica Policy Research, Inc., and a professor in the Departments of Medicine and Psychiatry at Georgetown University School of Medicine, both in Washington, D.C. Board certified in internal medicine and rheumatology, he practices primary care medicine at the Washington Free Clinic.

Worldwide, more than 10 million children die each year, with nearly three-quarters of these deaths attributable to just six causes: pneumonia, diarrhea, malaria, neonatal sepsis, premature birth, and suffocation during the birth process. Poor sanitation and inadequate nutrition add to the risk for these and other dangers.

We at RAND recently investigated the factors that appear to have ameliorated these conditions and improved the health status of children in Bangladesh, Ecuador, Egypt, and Indonesia, four developing countries that throughout the 1990s reduced child mortality at rates exceeding what might be expected from their poor economic circumstances. We sought to identify the common characteristics that could be associated with the ability of these countries to overcome their economic constraints. Our conclusions cast doubt on some long-held assumptions about the best approaches to improving health in developing countries.

In each country, the so-called contextual factors of economic development, good governance, and strong health care systems mattered less than did the amount of foreign aid and technical assistance provided and the effective implementation of targeted health interventions, such as vaccination programs and family planning. These findings contradict prevailing U.S. foreign policy regarding the circumstances in which progress toward health goals can be made.

Decades of Debate

During his inaugural address on January 20, 1949, President Harry S. Truman declared: “We should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life.” Ever since Truman recognized the importance to U.S. interests of improving health in developing nations, there has been a lively debate about the most effective means to accomplish that goal.

To be sure, a great deal of theoretical and empirical research over the decades has confirmed the importance...
had nearly 15 percent less income per capita but three times the reduction in child mortality compared with Pakistan. Ecuador had 30 percent less income per capita but almost 2.5 times the reduction in child mortality compared with Guyana. Egypt had nearly 40 percent less income per capita than Algeria, where child mortality increased during the 1990s. And Indonesia’s reduction in child mortality was more than 50 percent greater than that in Thailand, despite having more than 50 percent less income per capita.

We also considered the possibility that income growth, less poverty, or greater economic equity was associated with better health. The rapid economic growth throughout Southeast Asia during the 1980s and 1990s could account for much of the improvement

Our conclusions cast doubt on some long-held assumptions about the best approaches to improving health in developing countries.
in health in Indonesia, but the economic growth there of 8.3 percent between 1975 and 2000 was no greater than the concurrent 9.2 percent growth in Thailand. And while Egypt had higher growth per capita than did Algeria, both Ecuador and Bangladesh had lower rates of growth than did Guyana and Pakistan, respectively.

In terms of poverty, the higher-achieving country in each case had a higher percentage of people living on less than $2 per day than did the comparison country, often dramatically so. And if greater income disparities were associated with higher child mortality rates, then the Gini coefficient—a common measure of economic equity—would be lower for the higher-achieving countries. Nevertheless, the coefficients were nearly identical across each comparison, except for Indonesia, where inequalities were less severe than those in Thailand.

We also found political development to be as dubious a determinant as economic development for improving health. Case studies by the Rockefeller Foundation in the 1980s examined three countries (Costa Rica, China, and Sri Lanka) and one state in India (Kerala) that had achieved good health despite great economic obstacles. The studies concluded that the single most important element underlying the health achievements in these cases was a strong political commitment to good health. The studies identified five elements of “political will”: historical commitment to health as a social goal, a social welfare orientation to development, widespread participation in political processes, equity in access and use of social programs, and effective intersectoral linkages allowing for coordination and cooperation.

In spite of this prior research, we found little evidence of political will or effective governance in the countries we studied that had achieved better child health. We did not find consistent evidence of political consensus on or a historical commitment to health, nor did we find much evidence of the types of social welfare orientation to development observed by the Rockefeller Foundation. Bangladesh, Ecuador, and Indonesia rank among the world’s most corrupt developing nations, and we found little evidence for participatory governance and decentralized decisionmaking. For example, crackdowns on extremists in Egypt and Indonesia had led to a tightening of central controls and authoritarian processes. The contrast between the four countries we studied and those highlighted in the Rockefeller case studies is dramatic and suggests that while the fundamental elements of political will might help, their absence can be overcome.
Remaining Clues
We did, however, uncover certain characteristics that the four countries of interest shared in common with respect to reducing child mortality. First, in each case, data that allowed for the identification of the specific health conditions associated with child mortality were available and appear to have been used effectively to target delivery of specific health interventions for those most in need of them.

Second, although each of the individual interventions probably accounted for only a small portion of the overall health improvements, multiple interventions were introduced in each country in a highly project-specific and targeted manner. The situation in Bangladesh, where the World Bank supported 128 individual health projects in 1998, is especially informative.

Third, none of the countries we studied had well-developed, accessible health care systems. In fact, the systems were not just underdeveloped and inaccessible, but also often unpopular.

Fourth, the four countries in our study appeared to form more effective relationships with donors than did less successful countries. Several key informants for our study suggested that Bangladesh is especially receptive to foreign aid and more willing and able than other countries to endorse the conditions or stipulations that often accompany such aid.

Finally, development partners in each of the four countries appear to have provided financial assistance that mitigated the effects of weak economies and of low levels of internal public and private health spending. It also appears that such financial aid may have increasingly bypassed government in favor of direct allocations to nongovernmental organizations.

Healthier Means Wealthier?
With regard to improving children’s health in developing countries, our findings suggest that targeted health interventions and foreign aid matter more than do economic development, good governance, and strong health care systems. The experiences of Bangladesh, Ecuador, Egypt, and Indonesia offer several important lessons for health and foreign policy.

The first lesson is that economic growth, poverty reduction, and economic equity are not necessary to reduce child mortality. But the reverse could very well be true and could explain the association between health and wealth. Tracking the economic development of these four countries in the coming decades will help us understand whether healthier could very well mean wealthier.

The second lesson is that the absence of political will or good governance does not doom efforts to reduce child mortality in developing countries. Violent political change, corruption, and ineffective government were common features in each of the four countries we studied, and participation in the political process was rare.

The third lesson is that foreign aid and technical assistance appear to be important. Each of the four countries received considerable financial assistance. Technical assistance in the form of disease surveillance was especially important for targeting interventions to those most in need.

The fourth lesson is that public health and medical services do not require the comprehensive framework, or the attendant level of coordination and bureaucracy, endorsed by the International Monetary Fund, the World Health Organization, and the World Bank. Comprehensive services could even be counterproductive. As a key informant from Pakistan told us, trying to accomplish everything dilutes resources and efforts, making it less likely that anything will be done well.

U.S. foreign policy, along with international trends in development assistance, emphasizes economic development and limited direct financial assistance in countries that meet certain criteria of government effectiveness, corruption control, and economic freedom. Much of the aid and debt relief from agencies such as the World Bank and the International Monetary Fund are also now tied to development strategies focusing on economic growth and poverty reduction.

This is not the route followed by the exemplary countries studied here, for which generous amounts of direct foreign aid supported the targeted introduction of effective interventions despite great poverty, weak economies, political turmoil, widespread corruption, and poor governance. The results favor an alternative approach that places a priority on setting explicit health goals and using targeted interventions to reduce child mortality.

Related Reading
Old Lessons, New Doctrine

Classic Insights into Counterinsurgency Are Especially Trenchant Today

By James A. Thomson

James Thomson is president and chief executive officer of the RAND Corporation.

In October, the New York Times reported that the U.S. Army and U.S. Marine Corps were drafting a new counterinsurgency doctrine for use within an updated field manual. Reflecting lessons from Afghanistan and Iraq, the doctrine places a high priority on protecting civilians, restoring municipal services, and reconstituting indigenous security forces.

In crafting the doctrine, the military services “drew upon some of the classic texts on counterinsurgency by the likes of T. E. Lawrence of Arabia and David Galula,” the Times noted.

Little known outside military circles during most of his career, Galula was an important early contributor to counterinsurgency research at RAND. As a consultant here in the early 1960s, he wrote a path-breaking analysis, Pacification in Algeria: 1956–1958, based on his command of French army troops during Algeria’s war of independence. Under his command, French forces cleared an insurgent-filled area near Algiers and restored it to government control. The experience gave him a ground-level view into what did and didn’t work.

In this RAND study and his later book, Counterinsurgency Warfare: Theory and Practice, Galula argued that the key to counterinsurgency is support from the local population, requiring that military authorities ensure the people’s safety and maintain effective police and other public services. Force alone will not succeed. Counterinsurgency succeeds when it melds the political with the military. All these recommendations appear in today’s new counterinsurgency doctrine.

With the growing insurgencies in Iraq and Afghanistan, it is gratifying to see the lessons RAND has learned in the course of five decades of counterinsur-
Join RAND in Rebuilding the Gulf Coast

When Hurricane Katrina roared ashore on August 29, 2005, it laid bare many of the economic, environmental, and social justice issues that have long kept the Deep South from sharing in the progress enjoyed by much of the rest of the nation. Now, the region faces the long-term challenges of not only rebuilding the broken communities but also strengthening the governance systems for the people in those communities.

Within a week of the hurricane, several leaders in the Gulf Coast region contacted RAND President Jim Thomson and asked him to bring RAND’s unique brand of research and analysis to bear on the region’s problems. Drawing on gifts from donors and other resources, RAND has since invested more than $2 million in assisting Gulf Coast decisionmakers and establishing the RAND Gulf States Policy Institute, headquartered in Jackson, Mississippi.

Although the nation has invested billions of dollars to assist the Gulf States, regional leaders need solid, objective, unbiased, non-partisan research to help them decide how to use the large amounts of available public and private resources most effectively.

Donations to support the RAND Gulf States Policy Institute or other high-priority needs at RAND can be made by using the envelope inserted in this issue of RAND Review. If you would like additional information about the current work and activities of RAND in the Gulf Coast region, you can contact George Penick, director, RAND Gulf States Policy Institute, at (601) 979-2449 or e-mail George_Penick@rand.org.

I Want You!

The Evolution of the All-Volunteer Force

Bernard Rostker

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Recently, RAND Policy Circle members had reserved seats at a standing-room-only Policy Forum on “A Vision for the Arts in Los Angeles: Opportunities and Challenges.” Other recent events included a roundtable discussion about unfolding events in the Middle East, an evening with best-selling author and political theorist Francis Fukuyama as part of RAND’s Distinguished Speaker Series, and a RAND Conversation in Pittsburgh on “Music Lyrics and Sexual Activity Among Youth.” People who join the Policy Circle also receive selected policy briefs and newsletters to keep them apprised of RAND’s nationally acclaimed work on a wide range of national security and social policy topics.

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