SHIFTING TERRAIN

Stabilization Operations Require a Better Balance Between Civilian and Military Efforts

—By Thomas S. Szayna, Nora Bensahel, Terrence K. Kelly, Keith Crane, David E. Mosher, and Beth E. Lachman

An Apple a Day: How New York City Schools Turn Grade Retention into Good Medicine
—By Jennifer Sloan McCombs, Sheila Nataraj Kirby, and Louis T. Mariano

Pilgrim’s Progress: How Massachusetts Could Lead the Way in Controlling Health Care Costs
—By Christine E. Eibner

Thomson at Twenty: Insights from the President of RAND
In Defense of Domestic Analysis

In his interview for this issue, James Thomson reflects on 20 years as president of the RAND Corporation and 35 years of a career in public policy, dating to 1974, when he joined the staff of the U.S. Office of the Secretary of Defense. Across the decades, he has witnessed the shifting fortunes of policy research in America, leading him to this disquieting observation: “The scope for analysis in the policy process has been declining since around 1980, more in the domestic agencies than in the Pentagon.”

Upon taking the helm at RAND in 1989, Thomson hoped to put some of its domestic policy research on the same solid financial footing given to the defense policy research since the 1940s. “I was naïve,” he acknowledged. “There was a brief era of analytical research in support of the missions of domestic agencies. And then it never came back. Today, much more than before, ideology is part of the process—as opposed to analysis.”

Nevertheless, he remains hopeful about the potential for domestic policy analysis to occupy a “nonpartisan space” within an otherwise polarized political debate. The three feature stories in this issue underscore his point, demonstrating the promise yet to be fulfilled.

Our story about grade retention policies in New York City sheds light on a heated issue. The research offers encouragement for school districts that combine grade retention with academic support services. However, important questions remain: whether the short-term benefits will persist over the long term and whether the benefits will outweigh the costs.

Likewise, our story about health care financing in Massachusetts outlines some strategies that could save not just Massachusetts but also the rest of the country lots of money. However, several additional strategies, including some popular ones, could be neither encouraged nor discounted by the analysis due to lack of evidence.

Finally, our cover story on international stabilization operations emphasizes the need for civilian agencies to play greater roles in these missions. Perhaps nowhere is the need for civilian expertise so great—and the absence of analysis of the civilian efforts so glaring—as in the stabilization operations for which defense agencies have found themselves doing the work of nondefense agencies.

“There’s a lot for us to do,” says Thomson. “We’re in a period of change now with a new administration. Will there be a change in attitude of openness toward policy research? We’ll see.”

—John Godges

Message from the Editor

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On the Cover
An Afghan girl collects seeds from the ground at the Women’s Garden in Pul-e-Khumri, 140 miles north of Kabul, Afghanistan, on July 10, 2009. The U.S. Agency for International Development established the Women’s Garden as a guarded city park to offer a safe place for local women and their children to rest.

AP IMAGES/BELA SZANDELSZKY
Lowering Sodium Consumption Could Yield Large Societal Savings

Reducing Americans’ average intake of sodium to the amount recommended by health officials could save the nation billions of dollars annually in avoided health care costs and improve the quality of life for millions of people, according to a RAND study published in the September/October edition of the *American Journal of Health Promotion*.

Excessive consumption of sodium is a persistent health problem in the United States, causing increased rates of high blood pressure and related illnesses such as cardiovascular disease. The Institute of Medicine recommends that adults consume no more than 2,300 milligrams of sodium each day, with lower amounts recommended for groups that are at higher risk: older adults, African-Americans, and those with high blood pressure. However, the authors estimate that the U.S. average daily consumption is roughly 3,400 milligrams per day, much higher than the recommended limits.

The study—one of the first to estimate the economic benefits of lowering sodium consumption among the U.S. public—estimates that meeting national sodium guidelines could eliminate 11 million cases of high blood pressure nationally (see the table). Moreover, meeting sodium consumption guidelines would save, in just one calendar year, 312,000 quality-adjusted life years—a research measurement that adjusts increased longevity for the relative healthiness experienced during those additional years of life. The monetary value of the improved quality of life would be an estimated $32 billion annually.

“This study provides an important first step toward quantifying the benefits of reducing the intake of sodium by the American public,” said Kartika Palar, the study’s lead author and a graduate fellow at the RAND Pardee Graduate School. “These findings make a strong case that there may be value in pursuing a population-based approach to sodium reduction.”

Researchers calculated that lowering sodium intake could also trim nearly a third of the $55 billion spent nationally each year to treat high blood pressure. Moreover, about half of the $18 billion in annual health care cost savings would accrue to public-sector health spending. The total savings estimates are conservative, because researchers were not able to directly calculate the savings for cardiovascular disease, including heart attack and stroke, for which sodium consumption plays a less-defined role.

“Our results are driven by the fact that nearly 30 percent of the nation’s population has hypertension,” said coauthor Roland Sturm. “One of the reasons hypertension is so pervasive is that sodium consumption is so high.”

Researchers say that better strategies for lowering sodium intake across the nation’s population still need to be developed. Studies estimate that more than 75 percent of Americans’ dietary sodium intake comes from processed foods rather than from salt added during cooking at home or at the dining table. Restaurant food is also generally high in sodium.

Population-based strategies that have been discussed include redesigning food-labeling information to better highlight sodium levels, having manufacturers voluntarily lower sodium levels, and adopting regulations that would require food processors to reduce the use of sodium.

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**Generally Speaking, the Lesser the Sodium Intake, the Greater the Societal Savings**

<table>
<thead>
<tr>
<th>Average Sodium Consumption (milligrams per day)</th>
<th>Societal Savings Relative to Estimated Average Sodium Consumption Among U.S. Residents of 3,400 Milligrams per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases of Hypertension Reduced (millions)</td>
</tr>
<tr>
<td>2,300 (upper limit recommended by Institute of Medicine)</td>
<td>11.1</td>
</tr>
<tr>
<td>1,700</td>
<td>14.9</td>
</tr>
<tr>
<td>1,500</td>
<td>16.4</td>
</tr>
<tr>
<td>1,200</td>
<td>17.7</td>
</tr>
</tbody>
</table>

Rapid Growth in Health Care Costs Hurts U.S. Industries

The rapid growth in health care costs in the United States is linked to job losses and lower gross economic output among industries that commonly provide workers with health insurance, according to a RAND study published online in the journal *Health Services Research*. The study is the first to assess the economic effects on U.S. industries of “excess” growth in health care costs, defined as the increase in health care costs that exceeds the overall growth in the nation’s gross domestic product (GDP). The study examined the economic performance of 38 industries from 1987 through 2005, comparing changes in employment, gross economic output, and the value added to the GDP for industries in which a large portion of workers have employer-sponsored health insurance to those industries in which few workers have such insurance.

The study found that excess growth in health care costs has adverse effects on employment, output, and value added to GDP—and that the effects are worse for industries in which high percentages of workers have employer-sponsored health insurance to those industries in which few workers have such insurance.

As shown in the figure, which plots the 38 industries, the workforce in the construction industry, which provided health insurance to 54 percent of workers, grew about 2.1 percent. In the hotel industry, which provided health insurance to 54 percent of workers, the workforce grew about 1 percent. But in the utilities industry, in which 84 percent of workers were given health insurance, the workforce shrank by 2.8 percent.

“This study provides some of the first evidence that the rapid rise in health care costs has negative consequences for several U.S. industries,” said Neeraj Sood, the study’s lead author, a RAND senior economist and an associate professor at the University of Southern California. “Industries in which more workers receive job-based health insurance are hit the hardest by rising health care costs.”

Researchers underscore that their findings do not necessarily mean that rapid growth in health care costs results in large job losses in the overall economy, because losses in industries that provide a high proportion of their workers with health insurance are likely to be at least partially offset by gains in industries that provide a low proportion of their workers with the insurance.

“Still, our findings clearly show that the rapid rise in health care costs has a measurable impact on many industries and that it leads to a redistribution of workers from industries that provide insurance to their workers, such as manufacturing, to those that do not provide insurance,” explained study coauthor José Escarce, a RAND researcher and a professor at the David Geffen School of Medicine at the University of California, Los Angeles.

The study does not assess the relative effects of employer-sponsored insurance on the overall economy in the United States compared with alternative approaches to financing and providing health insurance, such as the public system in Canada. Rather, what the study demonstrates is that the U.S. approach hurts the economic performance of some industries more than others.
Retail medical clinics located in pharmacies and “big box” stores such as Wal-Mart can provide care for routine illnesses at a lower cost and similar quality as offered in three other typical medical settings, according to a RAND study published in the September 1 edition of the Annals of Internal Medicine.

“The study findings provide more evidence that retail clinics are an innovative way of delivering health care,” said lead author Ateev Mehrotra, a professor at the University of Pittsburgh School of Medicine and a RAND researcher.

The study examined retail clinics relative to physician offices, urgent care facilities, and emergency departments, evaluating the quality of care provided and the costs per episode of care for three common acute conditions—middle ear infections, sore throats, and urinary tract infections—and assessing whether the use of retail clinics discouraged preventive care.

As the figure shows, the quality scores for retail clinics were equal to or higher than those for other care settings. The quality of medical care was judged using 14 indicators of quality and determining whether patients received preventive care services, either during the initial visit or over the subsequent three months, for the three conditions examined.

The costs of treating the illnesses were substantially lower at retail clinics than in the three other settings, especially emergency departments. The differences were caused primarily by lower payments for professional services and lower rates of laboratory testing. Prescription costs per episode were similar across the four settings.

There has been concern that patients who visit retail clinics might be less likely to receive preventive care than are patients who receive similar care at physician offices. The study found that the rates of preventive care received were similar for patients at retail clinics and physician offices. In fact, for patients who visit a retail clinic, the preventive care was typically delivered in a physician’s office, suggesting that the clinics are not disrupting traditional opportunities for preventive services.

Researchers caution that their findings might not adequately represent the care provided at all retail medical clinics. The study was conducted only in Minnesota, among insured patients, and among patients of only one retail clinic chain. Moreover, the findings could be influenced by unmeasured factors, such as whether patients who are less sick and who need less-intensive services seek care at retail clinics rather than going to one of the other medical providers.

Still, “the results we have seen thus far suggest retail medical clinics provide high-quality care in a convenient and cost-effective fashion,” Mehrotra said.

**For Routine Illnesses, Retail Medical Clinics Score Well on Three Dimensions of Care**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Retail clinics</th>
<th>Physician offices</th>
<th>Urgent care</th>
<th>Emergency departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of quality indicators met across three conditions</td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
</tr>
<tr>
<td>Overall costs per episode in U.S. dollars*</td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
</tr>
<tr>
<td>Percentage of preventive services provided within three months of start of episode</td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
<td><img src="#" alt="Bar Chart" /></td>
</tr>
</tbody>
</table>

*Overall costs are the total of all services for the episode: initial appointment, follow-up appointment, prescriptions, etc.

Europe and Australia Offer Lessons in Building Efficiency

The United States can become more energy efficient and generate more “green” jobs by learning from some of the strategies used by the European Union and Australia to create more energy-efficient buildings, according to a RAND study.

More than a third of the energy consumed in developed countries is used to heat, cool, and light buildings or is utilized within the buildings. As shown in the figure, each type of occupied commercial building in the United States used hundreds of trillions of British thermal units (Btu) in 2003. The good news is that commercial buildings offer opportunities to achieve substantial, relatively low-cost improvements in energy efficiency.

However, the building sector has unique characteristics that make designing energy efficiency policies particularly challenging: Transfers of ownership are infrequent, capital costs are high, and the variability of design and location make energy-efficiency comparisons difficult. Often, owners must bear the costs of efficiency improvements, while the savings accrue to tenants.

The study focused on the potential roles of building codes, energy efficiency ratings, public buildings, expert training and certification, and the issuance of tradable “white certificates”—or rights to consume. The experiences of Europe and Australia suggest that effective policies to promote energy-efficient buildings can be designed using information disclosure, building codes, financial incentives, and benchmarking. But the rollout of such policies and their consistent implementation pose special challenges.

“Incentives may be needed to improve the energy efficiency of older, poorly performing buildings where the biggest aggregate gains are to be made,” said Charles Ries, the report’s lead author and a senior RAND fellow.

The study reaches several conclusions of interest to U.S. policymakers. First, it will be easier for building-materials manufacturers to standardize their products if there is regional consistency in energy-efficiency requirements. Second, energy-performance certificates should be understandable and meaningful enough to affect marketplace behavior. Third, widespread efficiency gains are possible only through retrofitting and making operational improvements to existing buildings.

Fourth, public buildings should continue to serve as a test bed for energy-saving ideas and should promote awareness of energy-efficiency in buildings. And fifth, energy-efficiency programs for buildings can play an important role in a cap-and-trade program for reducing carbon dioxide emissions.

“Investments in renovation and energy-aware construction should also be part of a green jobs strategy,” said Ries.


Among Types of U.S. Commercial Buildings, Office Buildings Consumed the Most Energy in 2003

<table>
<thead>
<tr>
<th>Type of Building</th>
<th>Trillion Btu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>1,134</td>
</tr>
<tr>
<td>Mercantile</td>
<td>820</td>
</tr>
<tr>
<td>Education</td>
<td>594</td>
</tr>
<tr>
<td>Health care</td>
<td>510</td>
</tr>
<tr>
<td>Lodging</td>
<td>427</td>
</tr>
<tr>
<td>Warehouse and storage</td>
<td>456</td>
</tr>
<tr>
<td>Food service</td>
<td>370</td>
</tr>
<tr>
<td>Public assembly</td>
<td>312</td>
</tr>
<tr>
<td>Service</td>
<td>286</td>
</tr>
<tr>
<td>Other</td>
<td>251</td>
</tr>
<tr>
<td>Food sales</td>
<td>163</td>
</tr>
<tr>
<td>Religious worship</td>
<td>126</td>
</tr>
<tr>
<td>Public order and safety</td>
<td>54</td>
</tr>
<tr>
<td>Vacant</td>
<td>25</td>
</tr>
</tbody>
</table>

NGOs Can Play Larger Roles in Long-Term Human Recovery

Nongovernmental organizations (NGOs) like the United Way and the American Red Cross have proven that they can be invaluable community assets after a disaster, but their roles are poorly defined and frequently not supported by state and federal guidelines, according to a RAND study. Focusing on Louisiana four years after Hurricane Katrina, the study reports on the lessons learned by leaders of NGOs in the Gulf Coast region in supporting the often overlooked area of long-term human recovery.

“What we’re seeing in New Orleans and other communities devastated by Hurricane Katrina is that recovery is more than just restoring roads and buildings,” said Anita Chandra, lead study author and a RAND behavioral scientist. “Human recovery includes rebuilding people’s social routines and a community’s support networks—actions that help restore a community’s physical and mental health.”

Long-term human recovery is especially complex following multiple disasters, such as those that occurred in Louisiana, which was hit by Hurricanes Katrina and Rita. In such cases, disaster planning, response, and recovery are parts of an ongoing cycle, not linear processes with clear transitions from planning to implementation to recovery. Rather, long-term recovery entails infrastructure and human elements that can overlap. As this recovery is achieved, it is also possible to develop greater community resilience for the next disaster.

The study found that there is no national operating plan to support long-term human recovery. Moreover, the federal Robert T. Stafford Disaster Relief and Emergency Assistance Act—designed to coordinate disaster relief and recovery through the Federal Emergency Management Agency, state and local agencies, and NGOs—meets the needs of small disasters but can create roadblocks for communities with long recovery periods.

For example, the act does not identify NGO case management and services as eligible expenses for federal aid. The act also requires states affected by multiple disasters to provide matching funds (which often stifles human recovery) and penalizes communities for rebuilding “smarter” in the long-term recovery phase (such as by rebuilding a facility in a more secure location as opposed to simply rebuilding the facility where it was).

The study recommends that NGOs be allowed to enter into contracts with state agencies before a disaster strikes and to provide long-term human recovery services, for which there are only limited provisions in the Stafford Act. “The state and federal governments must recognize that it may take years, not just months, for a community to truly recover from a disaster,” said Joie Acosta, the study’s coauthor and an associate behavioral scientist at RAND.

News

Price Is an Important Lever to Reduce Alcohol Consumption in Europe

Changes in alcohol pricing policy in the European Union (EU) could help reduce alcohol-related harms, according to a RAND Europe study.

Europe has the highest proportion of drinkers and the highest levels of alcohol consumption per person in the world. The high levels of alcohol consumption recorded in the EU have been linked to a number of public health and other problems, including violence and crime, diseases such as liver cirrhosis, lost productivity and absenteeism, family breakdown, and accidental deaths.

Despite extensive evidence that raising alcohol prices reduces consumption on a societal level, the trend is that the real value of alcohol taxation and the real price of alcoholic beverages are decreasing across the EU. At the same time, incomes have increased, making alcohol even more affordable.

The RAND Europe study finds that the affordability of alcoholic beverages in the region has increased since the mid-1990s—in some countries by over 50 percent (as the figure shows). This change, as also shown in the figure, was driven primarily by changes in income and only to a limited extent by changes in the relative price of alcohol.

The study also shows that there is a positive relationship between alcohol affordability and alcohol consumption in Europe, with a 1 percent increase in affordability leading to a 0.22 percent increase in consumption. In turn, increased consumption is positively associated with three types of harms for which reliable data are available: traffic injuries, traffic deaths, and liver cirrhosis.

The study thus provides evidence that pricing policy could be an effective policy lever to reduce alcohol-related harms.

However, “to the extent that a public health strategy focuses on alcohol prices alone, such as by trying to keep prices relatively constant, and does not take into account increases in income that drive up affordability, alcohol pricing policies may fall short of the aim of curbing consumption and harms,” said Lila Rabinovich, the study’s lead author.


Alcohol Affordability Is Increasing Across Europe, but the Key Driver Is Rising Incomes, Not Alcohol Prices

Alcohol affordability has increased across most of the European Union since 1996 . . .

Percentage increase/decrease in alcohol affordability between 1996 and 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithuania</td>
<td>164</td>
</tr>
<tr>
<td>Estonia</td>
<td>82</td>
</tr>
<tr>
<td>Latvia</td>
<td>62</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>54</td>
</tr>
<tr>
<td>Finland</td>
<td>52</td>
</tr>
<tr>
<td>Slovakia</td>
<td>50</td>
</tr>
<tr>
<td>Ireland</td>
<td>42</td>
</tr>
<tr>
<td>Portugal</td>
<td>36</td>
</tr>
<tr>
<td>Spain</td>
<td>26</td>
</tr>
<tr>
<td>Denmark</td>
<td>21</td>
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<tr>
<td>Sweden</td>
<td>17</td>
</tr>
<tr>
<td>France</td>
<td>17</td>
</tr>
<tr>
<td>Austria</td>
<td>13</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>13</td>
</tr>
<tr>
<td>Greece</td>
<td>13</td>
</tr>
<tr>
<td>Germany</td>
<td>8</td>
</tr>
<tr>
<td>Poland</td>
<td>8</td>
</tr>
<tr>
<td>Belgium</td>
<td>3</td>
</tr>
<tr>
<td>Italy</td>
<td>–3</td>
</tr>
</tbody>
</table>

Drivers of increased alcohol affordability in selected European countries

- Increased income (84%)
- Decreases in price (16%)

SOURCE: EUROSTAT and author calculations.
NOTE: Alcohol affordability is defined as a ratio of real disposable income to the real price of alcohol.
State of the Union
The Growing Role of Europe on the World Stage

THE EUROPEAN UNION (EU) has grown not only in size but also in global prominence. That was the message of Carl Bildt, the current foreign minister and former prime minister of Sweden, who spoke recently at a RAND Europe reception in Brussels.

Although officially established with the signing of the Maastricht Treaty in 1992, the EU had its origins in 1950 with the creation of the European Coal and Steel Community. From the six countries in the original community, the EU has since grown to its present membership of 27 countries. Bildt, who served as the EU envoy to the former Yugoslavia and first high representative in Bosnia from 1995 to 1997 and subsequently on the RAND board of trustees, focused on the expanding role of the EU in addressing the issues confronting Europe and the world at large.

Fulfilling Its Potential
The EU’s relevance in Europe and beyond has increased particularly since the fall of the Berlin Wall in 1989, said Bildt. “Everything changed radically and suddenly within a couple of months. Europe went from a world in which tanks faced tanks at Checkpoint Charlie and divisions stood against each other at the Fulda Gap to a world in which all the fundamental issues of peace, prosperity, and security in one of the most war-torn and conflict-ridden parts of the world were suddenly on the agenda.”

In the 20 years since, according to Bildt, the EU has only begun to tap its potential and ability. “Those 27 countries represent a half billion people, the biggest integrated economy by far in the world, and the biggest trading entity in the world—bigger than the number two and three entities combined,” he said, referring to the United States and Japan.

On the other hand, the relevance—indeed the credibility—of the EU as a global actor requires it to demonstrate having “a model for security and prosperity for its own part of the world.” To that end, Bildt underscored the EU’s need to continue the work it has done in the Balkans and Turkey in particular.

In the west Balkans, which has 20 to 25 million people, Bildt noted that the forces of integration confront the forces of disintegration. “Lots of blockages need to be unblocked in dealing with the Balkans to keep the momentum up for integration into the EU and ultimately NATO.” As for Turkey’s integration into the EU, Bildt recognized that there are divided views but said it is natural and healthy for there to be a vigorous public debate. “Some argue that Turkey’s accession into the EU is one bridge too far, but doing so will show, for internal creation and global credibility, that the EU can bridge and overcome the difficulties and prejudices of the past.”

He also discussed the EU’s Union of the Mediterranean initiative, launched last summer in Paris, with 16 partners across the southern Mediterranean and Middle East committed to addressing regional issues in which the EU has a huge stake. “Over the next 15 to 20 years, the countries of North Africa and the Mediterranean will add 160 million people—the equivalent of two ‘new Egypts.’ If these countries open up their economies and societies, they will have the potential for economic expansion and a political renaissance; if they don’t, the Mediterranean is not wide enough to insulate Europe from the consequences of failure.”

Beyond the Immediate Neighborhood
The EU also has a stake in what happens between the eastern boundaries of Europe and the western border of China, said Bildt. This is a vast region that includes 12 countries and enormous numbers of people: Russia (140 million people), the five countries of Central Asia (60 million people), and the six countries of the “Eastern Partnership” of former Soviet states (80 million people).

“So some argue that Turkey’s accession into the EU is one bridge too far, but doing so will show, for internal creation and global credibility, that the EU can bridge and overcome the difficulties and prejudices of the past.”
Regarding the Eastern Partnership, successive EU enlargements have brought these countries—Armenia, Azerbaijan, Georgia, Moldova, Ukraine, and Belarus—geographically closer to the EU. Their stated wishes to be ideologically closer to the EU means their security, stability, and prosperity increasingly have spillover effects on the EU.

“Through the Eastern Partnership, the EU is developing relationships with these countries, treating them as sovereign entities that have a right to determine their own destinies,” Bildt said. “This can set the stage for integration into the EU” or at least into what Bildt called the European “structures of integration,” such as “the principle of the rule of law to promote good governance, the strengthening of energy security, and the pursuit of deep and comprehensive free trade agreements.”

In the context of conflict resolution, Bildt discussed the EU role in Afghanistan. While acknowledging that the United States is making a significantly larger military contribution than is the EU, he described the situation from the European perspective. “The EU has more forces in Afghanistan than it had in the Balkans during the height of the Balkan wars and more forces in Afghanistan than anywhere outside the borders of Europe in modern history. So, in relative terms, the EU’s military contribution is very significant.”

On the other hand, he stressed the need for a comprehensive approach to establishing stability in Afghanistan, as reflected in a recent report by General Stanley McChrystal, the U.S. commander in Afghanistan. “There is too much emphasis on military versus political approaches,” Bildt noted. “The EU is contributing a billion euros a year to help Afghanistan achieve stability, and we need to do more. But we must develop strategic patience there, because it will be a long process of state-building.”

“The EU has more forces in Afghanistan than it had in the Balkans during the height of the Balkan wars and more forces in Afghanistan than anywhere outside the borders of Europe in modern history.”
An Apple a Day
How New York City Schools Turn Grade Retention into Good Medicine

By Jennifer Sloan McCombs, Sheila Nataraj Kirby, and Louis T. Mariano

Jennifer Sloan McCombs is a RAND policy researcher specializing in education reform. Sheila Nataraj Kirby is a RAND senior economist, and Louis Mariano is a RAND statistician.

New York City Mayor Michael Bloomberg announced in August that he would extend the grade retention policy of the city’s schools to 4th and 6th grades, meaning that all New York City students from 3rd through 8th grades now face being held back if they fail to meet promotion criteria on standardized tests or to demonstrate their knowledge by alternative means. The New York policy of ending social promotion is one of many such policies now in effect in several U.S. cities, from Houston to Philadelphia to Long Beach.

Grade retention is the practice of keeping low-achieving students at the same grade level for an additional year to give them extra time to catch up, as opposed to social promotion, the practice of promoting students regardless of whether they have mastered the grade content. As part of an emphasis on standards and accountability, many U.S. districts use standardized test scores as one of the main criteria for grade retention.

However, grade retention is a contentious and hotly debated policy. Proponents of grade retention argue that it gives students an additional year to master the academic content that they failed to master the previous year, putting the students at less risk for failure when they do proceed to the next grade. Opponents of grade retention point to research that shows it disproportionately affects low-income and minority children and is associated with low self-esteem, problem behaviors, and an increased risk of dropping out of school.

Indeed, our review of 91 studies of retention policies showed that, in general, retention does not appear to benefit students academically. In fact, most of the studies indicate negative relationships between retention and subsequent academic achievement. On the other hand, a few studies have found academic improvement in the immediate years after retention. But even so, these gains are often short-lived and tend to fade over time. Moreover, the retained students are shown to have a significantly increased risk of eventually dropping out of school.

But the policy used by the New York City Department of Education, the largest school district in the United States, has served as both a threat and a promise. In New York, the policy aligns with best practices set out by the National Research Council, placing emphasis on identifying struggling students early in the school year, providing them with additional instructional time (tutoring, Saturday school, summer school), and monitoring their progress. The emphasis on early identification of students who are struggling academically and on providing them extra learning opportunities is a critical factor in what we found to be the success of the city’s policy.

We examined the implementation of the New York policy and its short-term effects on the academic
and socioemotional outcomes of students who were in the 5th grade between 2004 and 2007. By tracking the performance of 240,000 students, surveying more than 7,000 students in each of three years, surveying school administrators, conducting case studies of schools, interviewing district officials, and analyzing demographic and achievement data, we found that the policy and supportive services had positive effects on student performance in the 5th grade that continued into the 7th grade.

Few students were retained under the policy. However, for those students who were retained, we found the additional year in the same grade improved student performance into the 7th grade, compared with what it would have been without the policy, and that retention did not result in negative effects on sense of school belonging or academic confidence.

Our top recommendation for New York is to continue identifying at-risk students early and providing them with academic support services. This approach sets New York apart from other districts that use test results to make promotion decisions without providing early educational support services to help students improve.

But two questions remain for New York as well as other districts: whether the short-term positive effects of a retention policy like that in New York will persist over the longer term and whether the benefits will outweigh the costs. New York’s policy has not been in existence long enough to address these questions. We have followed the retained students only to grade 7.

**How the Policy Took Effect**

New York implemented its policy for students in grade 3 during the 2003–2004 school year, extending it to grade 5 in 2004–2005, grade 7 in 2005–2006, and grade 8 in 2008–2009. As a result, general education students in these grades must score at or above Level 2 on a four-level performance scale on the state English language arts and mathematics assessments in order to be promoted to the next grade. Performance at or above Level 3 is considered “proficient” under the federal No Child Left Behind Act and is a higher standard than the city’s promotion benchmark.

Students in need of extra learning opportunities are identified early based on the previous year’s assessments, teacher recommendations, or being previously retained in grade. These students receive academic intervention services, such as tutoring, during the school day. Schools can also offer services outside the school day, such as Saturday school, throughout the academic year. Students who do not meet promotion standards in the spring are enrolled in summer school.

Students who fail to pass the spring assessments, in either English or math, are given multiple opportunities to meet the promotion criteria. The students can be promoted based on (1) a review of a portfolio of their work in the spring, (2) performance on the summer standardized assessment, (3) a review of a portfolio of their work in August, or (4) an appeal process.

In each of the three academic years between 2004 and 2007, about 20 percent of students were categorized as needing assistance upon entering the 5th grade. However, as shown in the figure, few students were retained under the policy. The percentage of retained students dropped over time, from 2–3 percent in the first two years to 1 percent in the third year (621 students out of 57,762 students). More of the students needed assistance in English language arts than in mathematics, but students were more likely to be retained for failing to meet promotion criteria in mathematics.

Schools seemed to provide academic intervention services to as many students as they had the capacity to serve. Schools with larger percentages of in-need students

**Our top recommendation for New York is to continue identifying at-risk students early and providing them with academic support services. This approach sets New York apart.**
Many Students Needed Services During 5th Grade, but Few Were Retained

Retained students reported a greater sense of belonging than did promoted students.

How the Policy Has Helped

The policy had positive effects on the achievement of students needing services during the 5th grade, raising their assessment scores in both English language arts and mathematics by small amounts over their expected performance, judging by a control group of comparable students. The positive effects were stronger in English language arts than in mathematics. In contrast, more frequent attendance at Saturday classes and summer school in particular was associated with greater improvements in mathematics.

The positive effects continued into the 6th and 7th grades. The benefits included small, positive effects from early identification and intervention; small, positive effects from summer school; and moderate, positive effects from an additional year of instruction due to retention.

In other words, students who needed services at the beginning of the 5th grade scored higher on the 7th-grade assessments than they would have scored without the policy. Students who were required to attend summer school after 5th grade scored higher on English language arts and mathematics assessments in the 6th and 7th grades. And the positive effects of retention on student performance were larger than those found for early support services alone. The positive effects into the 6th and 7th grades were again generally larger in English language arts than in mathematics.

For the small group of students entering 5th grade with the lowest scores on state assessments, the additional services during the school year had little effect on performance relative to how they would have done in the absence of the policy. It may be that we find no promotion policy effects for these students because the services they received under the policy were quite similar to those provided prior to the policy.

The retained students did not report negative socioemotional effects. According to student surveys, retained students did not differ from promoted peers with respect to their sense of school belonging or their confidence in mathematics and reading. In fact, one consistent finding concerned school belonging: Retained students reported a greater sense of belonging than did promoted students, even three years after having been retained. While this is counterintuitive, it is consistent with some prior studies.

School staff tended to be positive about the policy. In surveys and interviews, the majority of principals and teachers agreed that the policy helped focus their instructional efforts and made parents more aware of their children’s progress. However, the majority thought that the policy relied too heavily on state assessment scores and, interestingly, that the policy made it more difficult to retain students who passed the test but who would benefit from being retained.
How the Policy Can Be Enhanced

Our findings lead to several recommendations for school administrators. While targeted to New York City, these recommendations could also apply to other districts and states implementing or considering test-based promotion policies.

Continue early identification of students and the provision of academic intervention services. These components of the policy helped students meet the promotion standards and improved their achievement in future grades. One-on-one tutoring should be expanded when possible.

Enable academic service providers to work consistently with students who need services. The provision of services was inconsistent because providers were often asked to assume other responsibilities, such as substitute teaching, lunch duty, or proctoring assessments.

Consider the expected duration and participation when designing Saturday programs. Improved performance in mathematics was associated with attending at least seven Saturday sessions. Principals who offer the programs need to ensure frequent attendance to maximize the benefits.

Continue to encourage struggling students to attend summer school. Summer school attendance had a positive relationship with summer assessment outcomes, especially in mathematics, and the positive effects of summer instruction continued into grades 6 and 7.

Analyze student-level data to evaluate the effectiveness of interventions. Several instructional strategies hold promise for helping struggling students. Schools have considerable autonomy over the services provided and would benefit from analyses of the effects of specific instructional strategies and programs on student achievement.

Continue to monitor the longer-term effects of retention. Two of the most important questions are whether the short-term positive effects of the policy persist over the longer term and whether the policy is cost-effective, compared with alternatives. We could not answer these questions.

The effectiveness of the promotion policy will ultimately be judged by whether its benefits outweigh its costs in the long term. This question has two components. First, from an individual student’s point of view, the question is whether the short-term gains will persist into high school and result in an improved probability of graduation and in higher proficiency at graduation. Second, from a societal point of view, the question is whether the economic and other benefits associated with implementing a promotion policy and holding students back a year outweigh the costs in terms of financing an extra year of education and any delay in entering the workforce. Although the New York City policy has not been in place long enough to address these larger questions, the near-term benefits at least hold the possibility of longer-term benefits as well.

Related Reading


Retaining Students in Grade: A Literature Review of the Effects of Retention on Students’ Academic and Nonacademic Outcomes, Nailing Xia, Sheila Nataraj Kirby, RAND/TR-678-NYCDOE, 2009, 142 pp. As of press time (Web only): www.rand.org/pubs/technical_reports/TR678/
SHIFTING TERRAIN

Stabilization Operations Require a Better Balance Between Civilian and Military Efforts

By Thomas S. Szayna, Nora Bensahel, Terrence K. Kelly, Keith Crane, David E. Mosher, and Beth E. Lachman

Thomas Szayna, a RAND senior political scientist, is the associate director of the Strategy, Doctrine, and Resources Program for the RAND Arroyo Center. Nora Bensahel is also a RAND senior political scientist and an adjunct professor of security studies at Georgetown University. Terrence Kelly, a 20-year U.S. Army officer and former director of the Joint Strategic Planning and Assessment Office at the U.S. embassy in Baghdad, is a RAND senior operations researcher specializing in post-conflict stability and reconstruction. Keith Crane is director of the RAND Environment, Energy, and Economic Development Program. David Mosher is a RAND senior policy analyst, and Beth Lachman is a RAND senior operations researcher.

The ongoing stabilization and reconstruction efforts in Iraq and Afghanistan have underscored the need for U.S. leaders to rethink the civilian and military components of such operations. In general, the balance of efforts needs to shift away from military services and toward civilian agencies better suited to the work. For the foreseeable future, though, U.S. military forces will need to continue performing some of these tasks, because a lack of security will severely hamper the ability of civilians to work in these areas.

To provide guidance for U.S. military forces involved in these activities, we identify the key civilian agencies that should be involved in the planning and implementation of stability operations. We also highlight some of the organizational and budgetary hurdles that lie ahead and recommend ways to surmount them. A prime example of such a hurdle is conducting international policing missions. We suggest that the United States create a high-end civilian police force rather than requiring U.S. military forces to execute these missions. In international policing missions, as in other areas of stability operations, the goals are to ensure a coordinated effort across all U.S. government agencies and to bring in some of the specialized expertise that exists in civilian agencies.

Building civilian capacity will be a long-term effort. In the meantime, the military services—particularly the U.S. Army, which has assumed the bulk of the duties for stability operations—can perform these missions in ways that are more likely to promote the long-term economic development and the stewardship of essential environmental resources necessary for stabilization.

Civilian Partners

Since 2003, in light of criticism of the initial U.S. reconstruction efforts in Afghanistan and Iraq, there has been a great deal of discussion among policymakers about revising the way that the United States plans and conducts its stabilization missions. The emphasis of this discussion has been on ensuring a common U.S. strategy rather than a collection of individual
departmental and agency efforts and on mobilizing all available U.S. government assets in the operations.

The U.S. Army has great interest in the success of such an approach to stability operations. The army wants civilian agencies to become more capable partners in these operations. One of the most vexing problems, however, centers on the issue of civilian agency participation in strategic planning and implementation. For this reason, we sought to identify the civilian agencies with relevant capabilities and how the army can collaborate best with them.

Among the agencies that need to be heavily involved in providing economic assistance in stability operations, the U.S. Agency for International Development (USAID) is the crucial partner, because it is the only major U.S. government organization that focuses solely on international development. The U.S. Department of State is the other main partner, because it is responsible for developing the rule of law and building democracy. The U.S. Department of Justice provides training for foreign judges and police forces. The U.S. Department of the Treasury is a key supporter of USAID economic stabilization efforts. The U.S. Department of Agriculture promotes sustainable agricultural production and economic growth. And the Office of Management and Budget plays a critical role in coordinating the funding of stabilization efforts. Of course, the list of U.S. departments and agencies in which relevant expertise resides is far longer. But the list above includes the U.S. government organizations that are generally included in the strategic planning process for stabilization operations.

Compared with the U.S. Army, USAID and the State Department are relatively small organizations, with limited surge capacity to support large-scale, complex missions. Based on the current numbers and availability of appropriate personnel, the capacity of the army in stabilization operations dwarfs the number of employees in these two civilian institutions.

Recent budgets reflect the preponderance of military efforts. Compared with U.S. Department of Defense budgets, the State Department and USAID budgets are very small. Even when it comes to stabilization missions only, the defense budget overwhelms that of the other civilian agencies. As shown in Figure 1, more than 80 percent of U.S. government funding for security, humanitarian, and reconstruction assistance to Iraq through fiscal year 2007 was controlled by the Defense Department, with the State Department and USAID playing much smaller roles.

Figure 1—More Than 80 Percent of U.S. Government Funding to Rebuild Iraq Was Controlled by the Defense Department

Total U.S. reconstruction assistance as of June 30, 2007: $45 billion

- U.S. Agency for International Development: 13.09%
- U.S. Department of State: 4.08%
- U.S. Department of the Treasury: 1.04%
- Overseas Private Investment Corporation: 0.07%
- U.S. Institute of Peace: 0.03%
- U.S. Trade and Development Agency: 0.01%
- U.S. Department of Justice: 0.0%

Numbers tell only part of the story. There is also a different orientation between strictly civilian agencies and military ones. The focus of the former is on the steady state, whereas the focus of the latter is contingency response. In a nutshell, the difference boils down to a contrast between the ways a police department and a fire department operate. Civilian agencies operate on the police department model of continuous full employment and have little slack in the system, whereas the military operates more on the fire department model of preparing for and responding to emergencies. Police departments react to sudden major outbreaks of crime by redeploying personnel from their usual duties, meaning that some areas then have less police presence and are put at greater risk. In contrast, fire departments exist to deal with occasional but potentially catastrophic threats.

The different orientations mean that most of the civilian personnel with expertise relevant to stabilization and reconstruction operations cannot be redeployed for such operations without harming other U.S. commitments, unless the United States were to abandon or to scale down some of its other responsibilities abroad. The creation of a Civilian Response Corps, as described in detail below, aims to address this problem. While promising, the Civilian Response Corps remains at an early stage of development.

Civilian Capacities
The most important step taken by the U.S. government in recent years to build its capacity for stabilization and reconstruction operations is the creation within the State Department of the Office of the Coordinator for Reconstruction and Stabilization. The mission of this office is to coordinate and lead U.S. government efforts across the full range of stabilization operations. The office’s most ambitious effort to date is the Civilian Stabilization Initiative, which includes the Civilian Response Corps as a deployable civilian capacity.

As planned, the Civilian Response Corps will have three components: an active component composed of 250 full-time U.S. government personnel from eight U.S. agencies who can deploy within 24 hours; a standby component composed of 2,000 personnel from the same agencies who receive training and can deploy within 30 days for up to six months; and a reserve component composed of 2,000 personnel from the private sector and state and local governments who have unique skills not found in the federal government. The biggest problem with the corps is that the U.S. Congress has only recently started allocating funds to make it fully operational.

Meanwhile, the funding mismatch persists between the Defense Department and the rest of the civilian agencies, perpetuating the lack of deployable civilian capacity and leading the military to take on many stabilization missions by default. Further impeding coordination, no fewer than eight U.S. congressional committees oversee matters of stabilization and reconstruction. Therefore, in addition to emphasizing civilian over military capabilities, the other top priorities for U.S. stabilization and reconstruction operations should be to realign the roles of U.S. government agencies and to fund the full implementation of the Civilian Stabilization Initiative.

If the development of military capabilities in the Defense Department continues to outpace the development of civilian capabilities in the State Department and USAID, this would strengthen the global perception that the U.S. military is the nation’s primary instrument of power, raising concerns internationally that would not be raised by developmental and assistance agencies. This trend would also likely prove ineffective, because the expertise for stabilization and reconstruction missions lies mostly outside the military. The organization best equipped to conduct these operations is USAID, which already has an expeditionary culture and controls the majority of programs related to these missions.

USAID capabilities will require significant upgrading, however, to allow the agency to assume the leadership role in implementation. The upgrades will involve transformations of recruiting, training, management, and deployment practices in addition to significant new resources. The National Security Council, which is part of the Office of the President, should continue to take overall responsibility for the interagency coordination of military and civilian efforts, and the State Department should develop longer-term strategies and policies to support USAID-led operations.

Although the Civilian Stabilization Initiative is currently the U.S. government’s most important effort to build civilian capacity, it still exists mostly as a promise. The Obama administration should work closely with the U.S. Congress to convince the relevant appro-
appropriations committees that relatively small investments in this area will provide large returns in ensuring that the United States can adequately respond to the global challenges of stabilization and reconstruction.

**Stability Police Force**

Unlike other Western countries, the United States lacks a “stability police force,” which is a rapidly deployable civilian force that engages in high-end police tasks such as riot control, special weapons and tactics, and the investigation of organized criminal groups. Good examples of high-end police forces are those often deployed overseas by the Italian carabinieri or the French gendarmerie.

Since the end of the Cold War, the United States and other Western powers have been involved in an increasing number of stability operations, from the Balkans and Haiti to Afghanistan and Iraq (see Figure 2). These operations generally require the deployment of international forces, both military and police, to help establish security until indigenous forces can take over.

Most military forces are not trained to conduct policing tasks in a civilian environment. In Kosovo and Bosnia, the United States has relied on other countries or international organizations to provide police. But in Iraq and Afghanistan, few or no civilian police officers have been used. The United States has a mixed track record in establishing law and order in international environments, partly because it lacks this policing component.

While the allies make important contributions, the United States should not depend on allies to supply police. Doing so would limit U.S. freedom of action on the world stage. It is time for the United States to build its own high-end civilian police capacity for international missions.

Historically, policing functions in the United States have been carried out at the state and local levels, with only limited law enforcement powers granted...
would work in federal, state, and local police agencies to gain crucial experience in their core areas of responsibility when not deployed. The federal government would pay some or all of the salaries and benefits of personnel when not deployed, yielding thousands of additional police officers across the United States, and all of the salaries and benefits of personnel when deployed. This hybrid personnel model would provide the optimum mix of readiness opportunities and skills development, while offering substantial domestic policing and homeland security benefits.

Agencies that benefit from the nondeployed personnel would agree in advance that the federal parent agency could “call up” the personnel whenever needed. Their deployment rates would be approximately the same as for the U.S. military—no more than one year out of three. We estimated the annual costs for a stability police force of three different sizes—1,000, 4,000, and 6,000 police officers—and four different personnel options (full-time military, military reservists, full-time civilians, and the hybrid civilian plan). As shown in Figure 3, the reserve option (which, by definition, is not rapidly deployable) is the cheapest at $396 million per year for the large force size. The hybrid civilian option is the next least expensive at $637 million per year. Because of the additional costs of providing facilities, the full-time civilian option is $870 million per year, and the military option is the most expensive of all at $907 million per year.

A new U.S. stability police force would provide a net savings for the U.S. government during periods of persistent conflict, because deploying the civilian force would be cheaper than using military units for international policing tasks. The cost of creating such a force is probably less than the cost of not having this capability at all. Had the United States been able to establish law and order in any one of several of its interventions since the early 1990s, it is likely that this step would have decreased the duration of operations and saved money and lives.

A stability police force based in the U.S. Marshals Service would not only act as a force multiplier in critical situations overseas but would also contribute to federal government efforts in the event of disasters within the United States. Had such a force been available at the time of Hurricane Katrina, law enforcement efforts in New Orleans might have been performed better.

**Economic Development**

Even if the army can leave many high-end policing duties and other reconstruction tasks to others, army
personnel will most likely remain involved in supporting economic development in stability operations for the foreseeable future. Army officers can play important roles in six economic development areas: humanitarian assistance, infrastructure, agriculture, finance (currencies, budgets, banking, and foreign trade), private-sector development and employment generation, and natural resource management. RAND offers a guidebook and checklists for commanders overseeing these areas, based on U.S. experiences in Afghanistan, Iraq, Liberia, and the Balkans.

The potential army tasks associated with humanitarian assistance go beyond distributing food, setting up shelter, offering medical care, and securing populations at risk. Also important are protecting roads, ports, airports, warehouses, and relief personnel. It is equally important for military units to repair the infrastructure required for humanitarian assistance, from electrical utilities to water and sewage systems.

Maintaining infrastructure should usually be the responsibility of the host government and private companies, but U.S. Army forces might have to step in if essential services are not being provided. The army can protect transportation, telecommunications, and energy grids; give host governments engineering support; coordinate construction projects, select priorities, award contracts, and monitor progress; and remedy damage caused by U.S. operations. Safeguarding the infrastructure can spur private-sector activity and win the support of the local population.

In the area of agriculture, the U.S. Army has become increasingly involved in helping farmers earn higher incomes. In the future, the army can expect to be involved in conducting assessments of important crops, livestock, locations of major markets, transportation routes, and storage facilities in areas that are being stabilized. After coordinating with other actors, army units can also provide agricultural supplies; protect markets, stocks, and transportation routes; initiate local irrigation, veterinary, and breeding programs; and return arable land to production.

For tactical commanders, the first issues that come to mind typically do not include exchange rates, inflation, national budgets, finance, and foreign trade. But if inflation is high, the exchange rate is collapsing, or government employees (notably soldiers) are not receiving paychecks, then local residents lose faith in their government, and U.S. forces face a taller order.

Among the potential army tasks in this domain are securing looted or diverted stockpiles of currency, securing key financial institutions, ensuring the timely distribution of a new currency, bolstering electronic payment systems, and making sure that ports of entry are run safely and efficiently.

In situations in which army forces are supporting private-sector development, the focus should be
on improving the investment climate and enabling entrepreneurs. Possible army tasks include identifying obstacles to economic activity; relaying information about harmful regulations or corrupt officials to commanders and civilian agencies; using public works programs to hire key populations (able-bodied workers who cannot find jobs, widows, or people maimed in the conflict); and scheduling programs for maximum effect, avoiding the harvest or planting seasons.

Economic recovery will falter if the host government and private companies cannot extract, ship, and sell natural resources because of a lack of security. The U.S. Army could identify the forces—government, insurgent, or private—that are protecting or attempting to control important natural resources; secure mines, forests, oil fields, processing plants, and other natural resource infrastructure; repair roads or bridges to facilitate logging operations and oil or gas deliveries; and enforce bans on illicit trade in resources such as gems, metals, or timber.

Environmental Stewardship

The trend over the past 15 years toward longer deployments and greater involvement in stability operations raises the importance of addressing environmental concerns: clean water, sewage treatment, hazardous-waste management, soldier health, sustainability, agricultural and natural resources, historical and cultural sites, and compliance with local environmental laws. By better managing these issues during deployments, U.S. Army units can gain advantages that will help throughout the combat and post-conflict operations and boost the likelihood of mission success.

Even during combat, army leaders can take steps to preserve the environmental infrastructure and resources that will be vital once combat ends. Determining what to preserve will demand that army leaders expand their range of view to encompass what the end result ought to look like.

For example, U.S. forces should not worsen environmental problems by disposing of their waste improperly, failing to clean up their fuel spills, or damaging farmland, water supplies, or other essential resources. Conversely, reconstruction projects that improve environmental conditions can foster a positive attitude toward the United States and the host-nation government it supports. This goodwill can yield tangible benefits, aiding the economic and social development necessary for long-term stability and improving the cooperation with locals, which in turn can improve intelligence, reduce security risks, and speed construction projects and the transition to a civilian government.

In countries in which environmental conditions and infrastructure have been severely degraded, the priorities of local inhabitants are often clean drinking water, effective sewage treatment and trash collection systems, and arable farmland. U.S. soldiers have helped to build wells, sewage treatment plants, and other water infrastructure systems in Afghanistan, Iraq, and the Balkans. The experience in Iraq suggests that safeguarding these and other life-sustaining resources can influence whether the inhabitants support the local government and U.S. goals (see Figure 4).

Environmental consequences can easily transcend national borders, spilling over into neighboring or even distant countries. Poor environmental practices can hinder diplomatic relations with these countries and jeopardize U.S. access to foreign bases.

Environmental issues can also affect soldier health and safety. Long deployments and extended operations such as those in Afghanistan, Iraq, and the Balkans expose U.S. forces to a variety of environmental problems. At one base camp in Afghanistan, longstanding pollution caused respiratory illnesses for U.S. soldiers.
until the problem was identified and addressed. Such conditions increase the cost of operations and the logistical burden of supporting the troops.

Despite the effect that environmental conditions can have on troop health, safety, and security, and despite their importance for the local population and neighboring countries, environmental concerns are inadequately considered in the planning and conduct of U.S. Army operations today. The principal reason for this shortfall is the lack of emphasis—by army leadership and in army training and doctrine—on environmental matters as critical components of overseas operations. The army also has too few qualified environmental officers for these operations, insufficient funding for environmental programs and equipment in the field, and insufficient oversight of its own private contractors during these operations.

Balancing environmental factors with other factors that contribute to mission success will require changes in army policy, planning, training, soldier attitudes, resource allocation, and overall awareness. Commanders and soldiers should understand that good environmental practices make good mission sense, even in combat operations. As long as the army remains involved in stabilization and reconstruction operations, it needs to promote environmental stewardship as a core function of these operations. It does no good to win the war only to forfeit the peace.

### Related Reading


Pilgrim’s Progress
How Massachusetts Could Lead the Way in Controlling Health Care Costs

By Christine E. Eibner

Christine Eibner is a health economist at RAND.

As the U.S. Congress has moved closer toward passing landmark legislation for national health care reform, attention has shifted to the reform’s long-term financial cost. To get a glimpse of what the future might hold for the national budget, many eyes have turned to Massachusetts.

In 2006, Massachusetts passed its own groundbreaking legislation ensuring near-universal health insurance coverage for residents of the state. By 2008, only 2.6 percent of Massachusetts residents were uninsured, considerably below the national average of 15 percent. However, continued increases in the cost of health care services now threaten the long-term viability of the state initiative, having ominous implications for the national effort unless costs can be contained.

In the absence of changes to the Massachusetts policy, health care spending in the state is projected to nearly double to $123 billion in 2020, increasing at a faster pace than the state’s gross domestic product (GDP). If health care spending could be held to the rate of growth in the state’s GDP, then health spending in the state would be only $107 billion by 2020, representing a cumulative savings of 8 percent between 2010 and 2020 and keeping health spending from consuming an ever increasing portion of the state’s economy.

As in the rest of the country, finding a way to reduce spending on health care is a major focus for private and public policymakers in Massachusetts. Federal policymakers are looking to the Massachusetts experience for insights about the possible outcomes of national health reform.

No Silver Bullets
The Massachusetts Division of Health Care Finance and Policy asked RAND to develop a menu of cost-containment options. From an initial set of 75 broad approaches to cost containment, we modeled the impact of a subset of 12 options for which there was some evidence of savings potential and some available data for making projections. We developed high and low estimates of the cumulative cost savings associated with these options over ten years. For an additional nine options, we conducted an extensive literature review but did not attempt to project savings, generally because the evidence was uncertain or the options held limited promise for reducing health spending in Massachusetts.

We found that there are no silver bullets for closing the gap between health spending growth and GDP growth in Massachusetts, but there are multiple options that would reduce spending. The most promising options involve changing the current methods of paying for health care services. There are multiple options that would reduce spending. The most promising options involve changing the current methods of paying for health care services.
tion technology, will not produce substantial savings themselves but are needed to implement other options.

Some popular strategies, such as disease management and “medical homes,” do not appear likely to yield substantial savings. Two factors explain why some options are less promising than hoped: The size of an affected population might be limited (at least for state spending purposes), or an option might offer no clear mechanism for changing the price or quantity of services.

We estimated the impact of the 12 options individually. Although some combination of options will likely be necessary, the savings estimates for many individual options cannot be summed, because they target the same dollars. For example, several options offer different ways to reduce the use of hospitals and emergency departments; consequently, savings from any one such option would dilute the savings potential from the others. Moreover, the estimates of savings from all 12 options are very tentative, because none has a proven history of reducing spending.

**Weighing the Options**

In our high-savings estimates, all 12 options would produce some level of savings by 2020. Even in our low-savings estimates, six options would produce savings. This suggests that health spending can indeed be reduced. However, the amount of the reduction is highly uncertain, as indicated by the spread between the high and low savings estimates in the figure. To reduce the growth of health spending to the GDP rate, a combination of strategies would likely be needed.

The options at the top of the figure show the most promise for reducing spending. All of the top four options—bundled payment, hospital all-payer rate setting, rate regulation for academic medical centers, and elimination of payment for adverse hospital events—would change the current method of payment for health care services, shifting away from the fee-for-service model. The sixth most-promising option—reference pricing for academic medical centers—is also a change in payment methods.

Among the five changes to payment methods that we studied, **bundled payment** strategies would encourage insurers to pay a single total amount for all services related to a treatment or condition, including services delivered by multiple providers and in multiple settings. The total amount would theoretically be set high enough to allow profits to be made but low enough to discourage the overuse of services, such as duplicative medical tests.

**Hospital all-payer rate setting** would establish a regulatory board to determine rates for hospital inpatient, outpatient, and emergency department care; limit payment to the minimum amount necessary to cover hospital operating expenses; and require all payers (insurers) to adhere to the rates set. **Rate regulation for academic medical centers** would limit reimbursement for most of the care at these centers to the average reimbursement rate for hospitals in the community.

**Eliminating payment for adverse hospital events** would entail specifying serious, preventable medical errors (and other indicators of poor care) and allowing

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### All of the Most Promising Options Would Shift Away from the Fee-for-Service Payment Model

<table>
<thead>
<tr>
<th>Estimated cumulative savings from selected policy options, 2010–2020</th>
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<tbody>
<tr>
<td><strong>Utilize bundled payment</strong></td>
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<tr>
<td>-5.9% to –0.1%</td>
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<tr>
<td><strong>Institute hospital all-payer rate setting</strong></td>
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<tr>
<td>-3.9% to 0.0%</td>
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<tr>
<td><strong>Institute rate regulation for academic medical centers</strong></td>
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<tr>
<td>-2.7% to –0.2%</td>
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<tr>
<td><strong>Eliminate payment for adverse hospital events</strong></td>
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<tr>
<td>-1.8% to –1.1%</td>
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<tr>
<td><strong>Increase adoption of health information technology</strong></td>
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<td>-1.8% to 0.6%</td>
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<tr>
<td><strong>Institute reference pricing for academic medical centers</strong></td>
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<tr>
<td>-1.3% to –0.1%</td>
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<tr>
<td><strong>Expand scope of practice for nurse practitioners and physician assistants</strong></td>
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<tr>
<td>-1.3% to –0.6%</td>
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<tr>
<td><strong>Promote growth of retail clinics</strong></td>
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<tr>
<td>-0.9% to 0.0%</td>
</tr>
<tr>
<td><strong>Create medical homes</strong></td>
</tr>
<tr>
<td>-0.9% to 0.4%</td>
</tr>
<tr>
<td><strong>Decrease resource use at end of life</strong></td>
</tr>
<tr>
<td>-0.2% to –0.1%</td>
</tr>
<tr>
<td><strong>Encourage value-based insurance design</strong></td>
</tr>
<tr>
<td>-0.2% to 0.2%</td>
</tr>
<tr>
<td><strong>Increase use of disease management</strong></td>
</tr>
<tr>
<td>-0.1% to 1.0%</td>
</tr>
</tbody>
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**SOURCE:** Controlling Health Care Spending in Massachusetts, 2009.
public and private payers to deny or reduce payment for the costs associated with such care. Reference pricing for academic medical centers would encourage insurers to base reimbursement on the community hospital rate and require consumers to pay the difference if they obtain care at an academic medical center.

Payment reform of the kinds outlined above is an essential tool of cost containment. This conclusion is consistent with the recommendation of the Massachusetts Special Commission on the Health Care Payment System to move toward “global payments,” which are designed to reduce both the price and the number of services delivered over the next five years.

Beyond payment reform, the next most promising area of cost containment is infrastructure investments, which would increase spending in the short term but could yield savings in the long term. These investments include the increased adoption of health information technology and the expansion of primary care capacity (by either increasing the use of nurse practitioners and physician assistants, promoting the growth of retail clinics, or creating medical homes).

The adoption of health information technology could be accelerated through financial incentives, direct provision of hardware and software, regulatory mandates, development of standards, and establishment of health information exchanges. Making greater use of nurse practitioners and physician assistants could require changes in laws, regulations, and financing practices that now limit the use of these professionals as primary care providers.

Policymakers could promote the growth of retail clinics by expediting reviews of their applications, relaxing the physician oversight requirements for nurse practitioners, and modifying other regulations. Medical homes, the final infrastructure option that we studied, would potentially reduce costs by having comprehensive primary care provided by physician-led teams available round-the-clock for improved management of care for chronically ill patients.

The least promising strategies include some of the most popular ones, such as reducing the intensity of resource use at the end of life for the non-elderly; this might be done by promoting the use of community hospitals, hospice care settings, and other sources of care that are less expensive than hospitals. Other popular policies aim to reduce spending on chronic illness through improved disease management for the non-elderly; this might be done by encouraging healthy behaviors, adherence to medications, and appropriate utilization of care. Although these approaches might improve quality and value, they are unlikely to moderate current cost trends.

The remaining option we studied, value-based insurance design, would tie copayments to the expected benefit of the health care service being consumed. The greater the expected benefit, the lower the copayment. This option has not been well specified or tested, but it could be developed over time and reconsidered when more evidence is available about its effectiveness.

Because we focused on options that state policymakers could implement without changes in federal legislation or regulation, we generally excluded the Medicare population. And because people age 65 and older will represent 35 percent of health spending in Massachusetts in 2010, many of the 12 options can affect only 65 percent of state spending. Likewise,
state spending on health care for people under age 65 with one of six chronic conditions that are commonly targeted by disease management programs (asthma, chronic lung disease, heart disease, heart failure, depression, and diabetes) will represent just 21 percent of the total in 2010.

The options with the largest estimated savings typically offer a clear and direct mechanism for reducing spending. Bundled payment, for instance, would directly specify the amount paid for health services. Hospital rate setting would impose statewide controls on hospital prices. Other options, in contrast, were developed with the primary aim of improving the quality of care; so the spending reductions, if any, would be a secondary effect.

Several popular options—including comparative effectiveness research, pay-for-performance, and prevention—were among the nine options we reviewed but for which we did not produce savings estimates. Either there was little or no evidence of the potential effects of these options, or the best evidence suggested that savings would be unlikely. In addition, a specific mechanism by which each of these options would reduce spending was often lacking. While these reforms should not be excluded from further consideration, any claim that they will result in significant spending reductions should be interpreted with caution.

Moving Forward
Our analysis suggests that the best opportunity for reducing state spending over the next decade is to change the method of paying for health care services. Moving toward bundled forms of payment appears most promising. Massachusetts has already taken steps to eliminate payment for adverse hospital events, another promising strategy in the category of payment reform.

The two most important options in the infrastructure category are accelerating the adoption of health information technology and expanding primary care capacity. Although these options do not appear likely by themselves to produce significant savings, they are foundational to other efforts. For example, accelerating the adoption of health information technology would facilitate not just improvements in health services delivery but also innovations in payment methods. It could allow medical homes to operate effectively, retail clinics to communicate seamlessly with other providers, and payment reform to take account of clinically important variations in patient need. Increasing the utility and availability of health data would also enable the state to evaluate its progress in implementing policy changes and to make necessary mid-course corrections.

Likewise, expanding primary care capacity would ensure that more patients have access to primary care providers, thereby reducing the use of emergency departments and other costly services for primary care and laying the groundwork for further reforms involving better care management. Some of these infrastructure options might cost more than they save in the next ten years, but failing to get started on such transformations today would only delay the opportunities to improve the health care system tomorrow.

From an initial set of 75 ideas, we identified a few options that offer the potential to slow the rate of increase in health care spending in Massachusetts over the next decade. Considerable work remains to be done to move from promising options to an action plan. However, if policymakers focus on those areas most likely to achieve the goals of significant spending reductions, the second round of health reform in Massachusetts will once again provide a model for the nation.

Related Reading
Thomson at Twenty
Insights from the President of RAND

James A. Thomson has been president and chief executive officer of the RAND Corporation since 1989, the year the Berlin Wall fell, pro-democracy protests filled Tiananmen Square, and the Exxon Valdez spilled oil in Alaska’s Prince William Sound. Prior to joining RAND in 1981, Thomson was on the staff of the National Security Council at the White House and the staff of the Office of the Secretary of Defense. Earlier in his career, he conducted research in experimental nuclear physics after earning his doctorate in physics from Purdue University. To commemorate his 20 years as president, RAND Review interviewed Thomson, asking him to reflect upon his major accomplishments, disappointments, imminent challenges, and foremost hopes for RAND.

RAND REVIEW: Your first meeting with the RAND board of trustees occurred the day the Berlin Wall fell on November 9, 1989. What did you tell the trustees?

JAMES A. THOMSON: Well, I said I saw it coming but didn’t think it would happen that fast! It seemed as though half the research we presented that day was immediately obsolete. We had to restructure our research agendas for our Department of Defense clients to help them adjust to the new world. We did that. I’m proud that our relations with these clients are today stronger than ever. We are working on their core challenges and helping them make sound decisions.

RR: The world is a different place than it was 20 years ago. How has RAND adapted?

JAT: I’m proud of the way we’ve handled moments of important changes, like our handling of the end of the Cold War. Not only did we have to restructure our work for our defense clients, we had to move beyond that. We did it by building up our health research, which is probably ten times bigger now than it was then. We opened another office in Europe. We took on new work in science and technology. We built up our education unit. Then in the mid-1990s, as our defense funding kept shrinking, we had to strengthen our domestic work further. We simply couldn’t tolerate financially weak activities. We asked each of our research units to strengthen the bottom line, and we did what most other nonprofits had been doing for a long time: We started raising money from philanthropists. There’s no question about it being the right move. We thought some of our domestic units wouldn’t survive. But they did. All of them have proven to be resourceful.
RR: What else have been among your proudest accomplishments over the past 20 years?

JAT: Two things stand out. One, we’ve internationalized RAND. And two, we’re getting better and better at making a difference.

More and more of our work comes from clients outside the United States. International work now accounts for about 10 percent of our revenue. Related to that is the internationalization of our research staff. We now have 40 nationalities working at RAND, counting RAND Europe and our graduate school, which are both quite international. Not counting those traveling from RAND Europe, last year there were 302 researchers from RAND visiting 77 countries. Most important of all, our international growth has been fueled not by our traditional expertise in international security but by our work on domestic policy issues in countries around the world.

As for making a difference, we developed a mission statement in the early 1990s: to help improve policy and decisionmaking through research and analysis. It’s about results, not research for the sake of research. We’re much more practical than we were 20 years ago. Back then, too many people thought our mission was just to do research, not to do research for a purpose. That is the key distinction. Today, we do research to support a mission.

RR: What are some recent examples of the research making a difference?

JAT: Our recommendations for managing pandemic flu have been adopted by the U.S. Department of Health and Human Services as part of their response to the H1N1 flu. Our work in comparing health care reform models has informed the national debate with a rare dispassionate analysis. Just the other day, U.S. Secretary of Defense Robert Gates gave a speech on post-traumatic stress disorder, saying the Pentagon’s attempts to address the problem built on our study on the invisible wounds of war. We’ve also saved the United States $1 billion since the beginning of the Iraq war because of the changes we proposed in the way the army stocks its spare parts in that country. You ask if we have an effect? I’d say $1 billion of taxpayer money saved is a pretty good effect.

RR: What have been your greatest disappointments or frustrations?

JAT: There are two big issues. One is that when I took over, I wanted to put at least some of our domestic policy research on the same kind of financial and substantive footing that we have with the defense agencies, working closely with the clients for long periods of time as an FFRDC [federally funded research and development center]. What sets us apart from other research institutions is that we have deep client relationships, sometimes long-term relationships that allow us to integrate with the clients and to see their problems over time, so they believe us when we say we have a way to fix their problems.

But I was naïve to think we could develop this type of strategic relationship with a domestic policy department within the U.S. government. Nobody has been able to do this. Most domestic departments lack an internal analytical arm, and if they have one, it lacks bureaucratic power. In some cases, this analytical arm is known as an Office of Program Analysis and Evaluation. It would be the job of this office to ask tough questions about priorities and effectiveness, which can lead to improved policies, programs, and budgets. A place like RAND should have a long-term working relationship with that kind of office in several domestic agencies to help them fulfill their missions. This kind of arrangement is also good for the research, because it makes it possible to hire top-notch researchers for the duration by offering them the certainty that there will be a demand for their services.

The second disappointment is that we continue to grapple with a dated public image of the RAND Corporation as a defense organization only, even though we’ve done work on domestic policy issues since 1965 or earlier. Even though half our work today is on domestic issues and it’s been like that for a long time.

“What sets us apart from other research institutions is that we have deep client relationships, sometimes long-term relationships that allow us to integrate with the clients and to see their problems over time, so they believe us when we say we have a way to fix their problems.”
But the scope for analysis in the policy process has been declining since around 1980, more in the domestic agencies than in the Pentagon. Here’s the story of domestic policy research in a nutshell: Starting in the late 1960s under President Johnson and then in the early 1970s under President Nixon, domestic agencies adopted the PPBS [planning, programming, and budgeting system] and created analytical systems akin to those in the Pentagon. Through contracts with those domestic offices, RAND created its domestic research divisions. But those offices began to weaken during the Carter administration. And when President Reagan came in, those contracts shriveled. There was a brief era of analytical research in support of the missions of domestic agencies. And then it never came back.

We’ve managed to build a vibrant domestic policy analysis capability anyway. But it could be much stronger. My dream would be the creation of a domestic FFRDC comparable to the defense ones, where we could work for the domestic agencies and assist them in reaching their missions—where they don’t send us money to do research, but to do research to support their missions.

RR: What are the biggest challenges that you see lying ahead?

JAT: The polarized nature of the political debate in the United States makes you worry about the space for nonpartisan objective analysis. Or if we in this country don’t care about that anymore. My response to that is people do care; it’s the politicians who are polarized, not the people. This creates an opportunity for us, because few organizations are occupying that nonpartisan space.

The other challenge is the tendency in Washington to inhibit the publication of research results. It’s been a growing tendency among domestic agencies. Obviously, we don’t publish everything. We have to protect sensitive information and be trusted private advisers. On the other hand, we’re dedicated to the public, and the public trust in the independence of our work could be harmed in the long run if our results could be suppressed. That’s why we don’t sign contracts that restrict our publications. This narrows our opportunities to carve out a nonpartisan space. But we’re in a period of change now with a new administration. Will there be a change in attitude of openness toward policy research? We’ll see.

RR: What are your biggest hopes for the future of RAND over the next 20 years?

JAT: I hope we will extend the impact of our work into new areas. The big, emerging issues—climate change, health care reform—play to our strengths. We have little to say about the science of climate change but lots to say about the policy: mitigation, adaptation, payoffs, trade-offs, and cost-effectiveness. We have a lot to offer in fields like energy supply, the energy grid, and transportation. Nuclear weapons are back on the agenda in a way that governments don’t completely understand. There’s a lot for us to do.

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RR: What is the most important lesson you’ve learned about your job so far?

JAT: I think it’s essential that anybody in this job stay close to the research and the people who do it. That’s what this place is all about. It is very hard to do, however. My calendar is very different from when I took over in 1989. It is packed. Now, there are several advisory boards and a whole set of fundraising functions, because we need to get more people involved with RAND to have a broader reach. Because of our greater international work, it’s also important that the president of the institution appear outside the United States. This all puts a squeeze on my time, but I’ve been lucky to have excellent help from RAND’s executive vice president Michael Rich. He’s made it possible for me (and him) to keep up with the research. We jam into the calendar regular updates throughout the year about significant work in progress, sitting in on practice sessions of our briefings for policymakers—so that I’m involved in the substance inside and can represent RAND outside. I have the substance force-fed to me through all these advisory board meetings and progress reports. My schedule is now what keeps me informed. This is the candy store for me.
THE FUTURE OF GLOBAL SECURITY

Cyberdeterrence and Cyberwar
Martin C. Libicki

The protection of cyberspace, the information medium, has become a vital national interest because of its importance both to the economy and to military power. Future wars are likely to be carried out, in part or perhaps entirely, in cyberspace. An attacker could be a person, group, or state and may disrupt or corrupt the systems from which cyberspace is built. When states are involved, it is tempting to compare these attacks to warfare, but there are important differences. The author addresses these differences and the ways the United States can protect itself in the face of attack.


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Ending Social Promotion Without Leaving Children Behind
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Jennifer Sloan McCombs, Sheila Nataraj Kirby, Louis T. Mariano, eds.

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