

Economy and Security: Belfer Center Explores Vital Connections

For more than 20 years, roundtables at the Belfer Center have had the benefit of contributions from 2005 Nobel Prize Laureate in Economics **Thomas Schelling**. Schelling, now at the University of Maryland’s School of Public Policy, won the coveted prize for demonstrating the influence of economics on national security by applying game theory to the management of the Cold War. His contributions continue, along with those of others working at the Belfer Center on innovative solutions to economy/security issues.

“[D]eciphering the dynamics of the relationship [between economics and national security] is critical to understanding and creating decisions of nations, companies and individuals.”

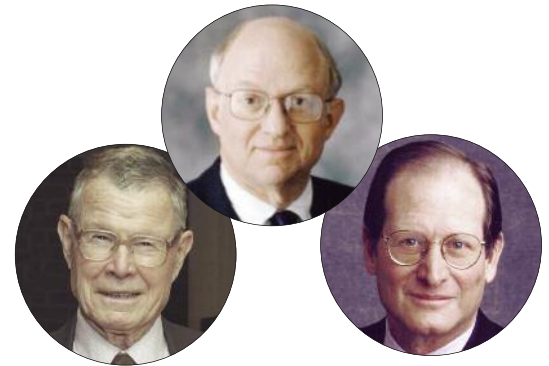
“The intersection of economics and national security is often viewed as a given, but deciphering the dynamics of the relationship is critical to understanding and creating decisions of nations, companies, and individuals,” says

Graham Allison, director of the Belfer Center. “The connections between the two areas will continue to be central to Belfer Center research in the near and long term.”

Economics giant **Martin Feldstein**, described by Allison as “the greatest Fed chairman we never had,” is once again leading an extremely popular seminar on economics and national security that brings together fellows, faculty, and students from multiple disciplines to consider issues such as the nuclear weapons market, dependence on foreign oil, and the defense industry.


Former senior vice president and general counsel for General Electric **Ben Heineman** and investment pioneer **Scott Delman** currently serve as senior fellows at the Belfer Center, working to develop closer relationships between business experts and national security specialists in the Harvard community and elsewhere.

Economics is a central element in the concept of “soft power,” says Kennedy School Dean Emeritus **Joseph Nye**. “Understanding economic leverage is vital to maintaining national security interests,” he says, and something he continues to teach in his courses on soft power. Kennedy School Academic Dean



Connecting the Economy/Security Dots: **Thomas Schelling** (left), **Martin Feldstein** (center), and **Ben Heineman** (right)

Stephen Walt analyzed economics as a component of American primacy in his recent book *Taming American Power*.

Belfer Center fellows are researching these general concepts in more specific areas. This research includes groundbreaking work by **Rebecca Weiner** on the implications of private companies and corporate law on military policy, **Ant Bozkaya** on early stage financing of technology development, and **Emily Oster** on the economics of disease and conflict. 

Belfer Center Fellow Guides Harvard Assistance with New Orleans Revival



Looking Ahead: New Orleans resident and Belfer Center Fellow **Doug Ahlers** (center) and Harvard Professor **Arnold Howitt** (left) discuss “Lessons on Katrina” at a director’s lunch in December. Harvard Professor **Dutch Leonard** (not shown) also took part in the presentation. Belfer Center Executive Director **Xenia Dormandy** (right) and Harvard Visiting Scholar **Marina McCarthy** (2nd from left) were among those in attendance.

In the wake of the Gulf Coast disaster, Belfer Center fellow and New Orleans resident **Doug Ahlers** put Harvard talents to work, helping to rebuild the economy in the wake of catastrophe. After the floods, Ahlers was asked to join Mayor Ray Nagin’s “Bring New Orleans Back” commission’s economic development committee. His position allowed him to guide a group of Harvard Business School and Kennedy School students, who visited the disaster area, and put their education into practice by creating a business plan to bring economic investment into New Orleans. The proposal to establish a non-profit independent economic development corporation to support the city has received the attention of local, state, and national leaders instrumental in the recovery effort.

Ahlers has also participated in efforts at the Kennedy School to learn from the failures in New Orleans. He and Kennedy School crisis management experts **Arnold Howitt** and **Dutch Leonard** contributed their expertise on the decision making process, and former NORTHCOM Commander **Barry McCaffrey**

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Upcoming –

April 5: Robert Socolow, Co-director, Carbon Mitigation Initiative
April 12: General James E. Cartwright, Commander, U.S. Strategic Command

Graham Allison

International relations is not like Old Faithful—predictable in how and when it will erupt. Instead we must constantly remain flexible and responsive, trying to recognize the difference between the headlines and the trendlines that will change the world. The Belfer Center is committed to focusing on the most important emerging issues at the nexus of science and international affairs. With limited attention and resources, where can we add the most value?

Two new areas now under active exploration at the Center are economics and security and energy and security.

Martin Feldstein (George F. Baker Professor of Economics, Director of the National Bureau of Economic Research, and a member of the Center's Board) is reviving the field of economics and national security. In a year when the Nobel Prize in Economics was awarded to one of the Kennedy School's founding fathers, **Thomas Schelling**, Marty's undertaking is well timed. **Ben Heineman**, former general counsel for General Electric and a new senior fellow this semester, joins investment pioneer **Scott Delman**, also a senior fellow, in helping to build bridges among Harvard's faculty and research in economics, business, and security.

The Belfer Center continues to extend its reach to tackle critical international challenges.

In response to President Bush's State of the Union comments on energy, Belfer Center experts **John Holdren**, **Henry Lee**, and **Kelly**

Sims-Gallagher have been sought out for their insights into the path ahead. Their thoughts on where we are going and how we will get there have been featured on National Public Radio, ABC, NBC, and other news outlets. The President's comments open the door for energy security proposals like those being discussed in the symposium series arranged by **Dan Schrag**, director of Harvard's Center for the Environment. "The Future of Energy" series features individuals like BP CIO **Iain Conn** and former White House Chief of Staff **John Podesta**.

The Belfer Center continues to extend its reach to tackle critical international challenges. Senator **Bob Graham**, who is a senior fellow with the Belfer Center this semester following a semester at the Institute of Politics, is putting together a course to educate national leaders on the principles of intelligence. **Bob Rotberg** will address the challenges in Sudan in an upcoming conference.

The Belfer Center is pleased to welcome **Jeffrey Lewis** as the new executive director of the Managing the Atom Project. He comes to us from the Center for International and Security Studies at the University of Maryland's School of Public Policy, where he conducted groundbreaking research on China's nuclear policy. He also is a leading blogger on arms control and nonproliferation (www.armscontrolwonk.com). We are looking forward to learning from Jeffrey's insights into security policy.

We also welcome new senior fellows **Rosemary Foot**, a professor at Oxford University and an expert in the relationship between counterterrorism and human rights, and **Chuck Freilich**, former Israeli deputy national security adviser. Both are featured on this page.



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Liquid Gold Standard: Matt Simmons (right), president of Simmons and Company, International and author of *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*, talks with anthropologist and former Center Fellow **Tim Weiskel** and others following Simmons' presentation on energy security at a Belfer Center director's lunch in February. Simmons was the first presenter in the Harvard University Center for the Environment "Future of Energy" lecture series.

In January, I was pleased to join Institute of Politics (IOP) Director Jeanne Shaheen and others at the IOP in introducing a new archive of John F. Kennedy Jr. Forum events that will bring us all closer together virtually. Now you can watch presentations by former, present, and future world leaders such as Nobel Laureate **Mohamed ElBaradei**, former Secretary of Defense **Robert McNamara**, and French Minister of Defense **Michele Alliot-Marie**. If you missed February's Forum with Saudi Arabian Ambassador to the U.S. Prince **Turki Al-Faisal**, you can check it out at http://ksgaccman.harvard.edu/iop/events_forum_listview.asp. Learning from others and spreading ideas is vital to the work we do, and we are pleased to support this IOP initiative.

New Belfer Fellows Share Vital Expertise

The Belfer Center welcomes three new fellows who will share their expertise with faculty and fellows in the coming months.

Until this fall, **Chuck Freilich** was the Israeli deputy national security adviser involved in issues of the peace process, terrorism, and WMD proliferation. He teaches political science at Tel Aviv and Hebrew Universities and co-directs a Middle Eastern affairs consultancy. While at the Belfer Center, Freilich will share his experience on Israeli national security decision-making and write a book on the subject.

Rosemary Foot, author of several books that focus on the international relations of the Asia-Pacific as well as on human rights issues, comes to the Belfer Center from Oxford University where she is professor of international relations and fellow of St. Antony's College. While at the Belfer Center, Foot will research

and share her views on the United Nations' counterterrorist actions and the consequences for human rights.

Ben Heineman has come from General Electric where he was GE's general counsel and senior vice president for law and public affairs. He is also a distinguished senior fellow at Harvard Law School's Program on the Legal Profession. At the Center, Heineman will conduct research and write on a wide variety of public and private sector issues, including the global anti-corruption movement and corporate citizenship and social responsibility.

Heineman, Foot, and Freilich join other senior fellows who were welcomed in the fall



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International Fellowship: Belfer Center Director **Graham Allison** (right) with new fellows **Ben Heineman** (left), **Rosemary Foot** (center), and **Chuck Freilich** (2nd from right).

issue of the Center newsletter: Internet pioneer **Doug Ahlers**, investment expert **Scott Delman**, Brigadier General **Kevin Ryan**, and former U.S. Senator **Bob Graham** who spent the first semester as an Institute of Politics fellow.

Experts Work to Put Energy Security on the Global Fast Track

When explosions tore open the main pipeline carrying gas from Russia to neighboring Georgia during extreme sub-zero weather in late January, Georgian officials blamed Russia and Russia blamed Islamic militants. Whatever the cause, the effect was severe disruption of every aspect of Georgian life and heightening of international concerns about the multiple aspects of energy security. The incident occurred on the heels of Russia's closure of gas pipelines to Ukraine over a disagreement on pricing, a move that limited gas to much of continental Europe.

"Crises like that in Georgia and Ukraine demonstrate the critical need for leaders in energy and in security fields to work together," says Belfer Center Director **Graham Allison**. "The Belfer Center is well-situated to look at the problem from multiple angles."

President George W. Bush's comment on America's "addiction to oil" underscores the importance of work currently underway at the Belfer Center with regard to energy security. As part of that effort, the Center is working closely with the Harvard University Center for the Environment (HUCE), which has launched a major initiative to integrate all energy programs across Harvard to work on energy challenges.

On the international front, Allison is co-chairing a small working group on energy security with Russian Duma Deputy **Andrei Kokoshin**. The short-term objective is to identify actions that can be recommended to the G8 for next July's summit in St. Petersburg. With Russia in the chair of the G8 this year, President Putin has selected "energy security" as the principal theme. The working group is exploring possible actions related to security of nuclear power as well as oil, gas, and other energy sources.

"For peaceful nuclear energy to prosper," Allison says, "dangerous nuclear materials must be secured. Thus, a secure nuclear fuel cycle from cradle to grave is a necessary condition for a robust nuclear industry that is a significant part of the total energy portfolio."

Former Secretary of Energy **James Schlesinger**, who chairs the Belfer Center's International Council, and former Central Intelligence Agency Director **John Deutch**, who serves on the Center's Board of Directors,

are co-chairing a Council on Foreign Relations study group on energy that will include Belfer Center experts.

"Until such time as new technologies, barely on the horizon, can wean us from our dependence on oil and gas, we shall continue to be plagued by energy insecurity."

Schlesinger testified before the Senate Foreign Relations Committee in November on "the quest for energy security." His comments included the following points:

- ¥ Until such time as new technologies, barely on the horizon, can wean us from our dependence on oil and gas, we shall continue to be plagued by energy insecurity.
- ¥ Energy actions tend to be a two-edged sword . . . recent higher prices for oil reflect some of our own prior policies and actions. For example, the sanctions imposed upon various rogue nations . . . have resulted in higher prices.
- ¥ Unless we take serious steps to prepare for the day that we can no longer increase production of conventional oil, we are faced with the possibility of a major economic shock—and the political unrest that would ensue.

Defining energy security is essential to developing ways to enhance it. To that end, Environment and Natural Resources Program Director **Henry Lee** and Science, Technology, and Public Policy Director **John Holdren** continue to actively engage policymakers in determining their priorities while also training the

next generation of leaders.

"Energy security differs for different regions of the world," says Henry Lee. "For developed countries, it means the ability to obtain sufficient energy supplies, at predictable prices, to maintain their present levels of economic prosperity. For poor developing countries, it means the ability to obtain a modicum of energy to allow people to heat their homes, move their goods to market, irrigate their fields, and cook their food. For energy producing countries, it is the ability to insure a revenue flow sufficient to pay for essential government services."

In the 1970s, Lee says, energy security triggered images of disruptions in foreign oil supplies, "but the past three decades have taught us that the term has much broader connotations, including the damage of oil installations from natural disasters such as hurricanes, the impact of energy price increases on the rate of economic growth, and the tremendous volatility in prices, which act as a disincentive to needed future investment."

"Energy security differs for different regions of the world."

Commenting on the challenges that lie ahead, John Holdren says, "The two great energy challenges facing the United States and the world are how to reduce dependence on oil and provide the energy needed to create and expand prosperity without wrecking global climate with the carbon dioxide emissions from fossil-fuel burning." We need to double or triple the government's investments in energy-technology innovation, Holdren says, and accompany these innovations with policy actions. "In the United States," he adds, "we need to greatly strengthen the corporate-average fuel economy (CAFE) standards for cars and light trucks, which have hardly been touched since the 1980s. In the case of climate change, the United States needs to embrace a mandatory, economy-wide approach to reducing greenhouse-gas emissions. Without such an approach, the United States will continue to lag rather than leading the rest of the world in addressing this most dangerous of all our energy challenges." ☪



Gearing Up: Harvard security, energy, and economics experts explore steps toward energy security during a Belfer Center working group meeting in February. Among the participants (in photo at left): Kennedy School Dean Emeritus **Joseph Nye** (left), Managing the Atom Senior Research Associate **Matthew Bunn**, Belfer Center Research Associate **Micah Zenko**, George F. Baker Professor of Economics at Harvard **Martin Feldstein**. Additional participants (in photo above): Belfer Center Senior Fellow **William Rosenberg** (left), Environment and Natural Resources Program Director **Henry Lee** (center), and Research Director of the Harvard Electricity Policy Group and Raymond Plant Professor of Global Energy Policy in the Mossavar-Rahmani Center for Business and Government **William Hogan** (right).



BELFER IN BRIEF

In the Field

International Security Program (ISP) Fellow **Paul Kane** is advising a group mandated by the United Nations General Assembly to survey countries that contribute peacekeepers and to devise recommendations for a methodology on how best to reimburse these countries. He also recently published a report for the Ford Foundation on the results of a survey of American Veterans' views and involvement in foreign policy.



ISP Fellow **Assaf Moghadam** met in January with U.S. Ambassador to Israel and former Belfer Center Fellow **Richard Jones** and gave a presentation on suicide terrorism to the embassy staff in Tel Aviv. He also presented on the globalization of suicide attacks at a conference "Current and Future Trends of Terrorism" organized by the National Security Studies Center at the University of Haifa.



Laura Sjoberg, joint fellow with ISP and the Kennedy School's Women and Public Policy Program, will co-chair the 2006 International Studies Association—West conference "Just Responses to Challenging Times."



Belfer Center Lecturer in Public Policy **Dorothy Zinberg** participated in the Airlies House conference "The Promise and Challenges of Medical Technology" in late January. With scientists and policymakers

from the U.S. and EU countries, the meetings explored how nanotechnology would change the ways in which medical treatments would be delivered and the importance of planning joint regulatory procedures before new developments are in place.

New Publications



The Belfer Center has joined forces with the Kennedy School's Ash Institute and George Mason University's Center for Science and Technology Policy in developing a new journal, *Innovations*, which will be launched this

spring. The quarterly publication, which will be published in Chinese as well as English, will focus on creative innovations to pressing

societal challenges in science and technology. Science, Technology, and Public Policy Director **John Holdren** will chair the advisory board for *Innovations* with Belfer Center Director Emeritus **Lewis Branscomb** as senior editorial adviser. The journal can be accessed at: <http://mitpress.mit.edu/catalog/item/default.asp?tttype=4&tid=65>

Albert Pratt Professor of Business and Government **Robert Stavins** is editor of the new *Review of Environmental Economics and Policy* (REEP). REEP, which will be published bi-annually, will fill a gap between the popular press and scholarly environmental and resource economics journals.

Researchers Explore Vital International Issues

Belfer Center Fellows **Hassan Abbas**, **Vanda Felbab-Brown**, and **Michael Mousseau** contributed chapters to the book *The Making of a Terrorist: Recruitment, Training, and Root Causes*. Hassan Abbas wrote "A Failure to Communicate: American Public Diplomacy and the Islamic World" (Ch. 4); Vanda Felbab-Brown wrote "The Intersection of Terrorism and the Drug Trade" (Ch. 12); and Michael Mousseau wrote "Terrorism and Export Economies: The Dark Side of Free Trade" (Ch. 13).

Senior Fellow **Rosemary Foot** wrote "Prizes Won, Opportunities Lost: The U.S. Normalization of Relations with China, 1972–1979," a chapter in *Normalization of U.S.-China Relations: An International History*, published by Harvard University Press in January 2006.

Research Fellow **Emily Oster** published "Hepatitis B and the Case of the Missing Women" in the *Journal of Political Economy* in December 2005. The paper explores the reasons for the imbalanced male to female ratio in Asian countries, arguing that Hepatitis B in Asian women skews the birthrate toward males.

Research Associate **Hui Zhang** wrote "Action/ Reaction: U.S. Space Weaponization and China" published in *Arms Control Today* in December 2005. The paper focuses on the China-U.S. relationship related to an arms race in space.



ANDY ABELL

Preventive Actions: Belfer Center International Security Program Fellow **Assaf Moghadam** (left) with U.S. Ambassador to Israel and former Center Fellow **Richard Jones** at the U.S. Embassy in Tel Aviv following Moghadam's presentation to embassy staff on suicide attacks.

Global Exchange

The Belfer Center was well-represented at the 36th Annual Meeting of the World Economic Forum (WEF) in Davos, Switzerland in late January.

Belfer Center Director **Graham Allison** and Science, Technology, and Public Policy Director **John Holdren** took part in a panel titled "Could a Nuclear Bomb Go Off in Your City?" Other panel members included Counter-Terrorism Coordinator of the Council of the EU **Gijs M. de Vries**, International Atomic Energy Agency Director **Mohamed ElBaradei**, Senator **John Kerry**, and Artistic Director **Peter Sellers**. On a separate panel titled "Who Picks Up the Tab?" Allison discussed natural disasters and terrorist attacks.

Sultan of Oman Professor of International Relations **Joseph Nye** headed a workshop on global risk analysis and a session on whether Russia is turning East. Nye, who serves on the board of directors of the WEF's Young Global Leaders Foundation, participated in a meeting of the world's "most extraordinary" young leaders.

Belfer Center Director of Science, Technology and Globalization **Calestous Juma** took part in a panel titled "Digital Inclusion: To 'e' or Not to 'e'." The panelists discussed whether the private sector's efforts to bridge the digital divide have been successful.

Stephen Walt, Kennedy School academic dean and faculty chair of the Belfer Center's International Security Program, participated in a workshop "Shifting Sands: A New Balance of Power in the Middle East" and another on geopolitical risks. Prior to the WEF, Walt was in Budapest and Singapore where he discussed the global response to U.S. primacy and his book *Taming American Power*.



Private Military Contractors Come with Strings Attached

By Rebecca Ulam Weiner

As the invasion and reconstruction of Iraq have demonstrated, the burgeoning privatized security industry has transformed the combat landscape. With a presence of some 20,000 contractors working for an estimated 60 Private Security Firms (PSFs), the industry has taken on increasingly core military functions in Iraq—selling not just security services, but strategic planning, combat training, interrogation, and operational support. And due to the industry's unique lack of accountability—to the legal system, Congress, the public, and even the Pentagon—it has attracted considerable controversy in the process. What few people realize, however, is that the PSF industry's biggest liability may turn out to be what is claimed to be its primary advantage: cost.

Soldiers serve their country; contractors serve their managers and shareholders.

Because security contractors operate outside the military chain of command as well as most legal jurisdictions, they have been widely characterized as rogue mercenaries with deep pockets. After all, soldiers are subject to rules of engagement; contractors are governed only by the terms of their contracts. Soldiers serve their country; contractors serve their managers and shareholders. When soldiers break the law, they can be court-martialed. When contractors break the law, they can be fired.

The extraterritorial activities and corporate status of contractors makes them virtually immune from U.S. federal law or international treaties, and military law only applies to civilians when there has been a formal declaration of war. Using PSFs as force multipliers helps circumvent congressional troop caps—and, because contractor casualties are not officially counted, it obscures the human cost of war. In short, PSFs give the government plausible deniability, extending the arm of the state without leaving any fingerprints.

Even still, PSFs do not in fact inhabit a legal lacuna. They are beholden to a whole set of corporate imperatives—based on the calculations of actuaries, civil liability to employees and shareholders, compliance with commercial regulations, and the eternal quest to preserve profit margins—that have accompanied the transformation of the battlefield into a labor market. Instead of corporate commandos run amok, PSFs are better understood as a case study in the unintended consequences of privatization.

As corporations, PSFs are subject to private-sector mechanisms for limiting exposure to and mitigating risk, such as tort liability and insurance. While soldiers cannot sue the mili-

tary for injuries sustained in battle, for instance, contractors can sue their employers. Last year, the families of four contractors who were brutally killed in Fallujah filed a wrongful death suit against the security provider Blackwater, alleging that Blackwater put the men at risk by breaching corporate protocol—and fraudulently covering it up. If the families prevail, the precedential effect will be far more significant than whatever punitive and compensatory damages Blackwater will have to pay. With well over 200 contractor casualties in Iraq so far, the PSF industry is awaiting the Blackwater verdict with understandable apprehension.

Unlike military commanders, PSFs must purchase life insurance for their contractors. Not only does this impose enormous costs on PSFs, it limits the range of activities that they may undertake. When insurance rates increased by upwards of 500 percent in the initial phases of the war, some firms were priced out of the market, leading to no-shows and contract breaches. Insurance premiums currently account for up to 40 percent of overhead for some PSFs, costs which are by many accounts unsustainable. Without regulation, rates will not drop: PSFs engage in extremely risky activities in dangerous places. But as these costs must be incorporated into contracts in order to preserve profit margins, they come at great expense to the industry's contracting partners.

On the other hand, as corporations, PSFs possess the leverage of private-sector mechanisms for structuring incentives. While even the most elite soldiers are compensated like mid-level bureaucrats, contractors are compensated like management consultants. The effect has been to cannibalize the military's labor pool—in particular the top echelon. Lured by salary increases of up to 400 percent, hundreds of soldiers have decided not to re-enlist but to "go private," adding to the resentment of the less-compensated and increasingly short-handed force they leave behind. The Army has recently resorted to offering bonuses of up to \$150,000 as incentive for soldiers to stay.

Finally, there is the Pentagon's preference for "cost-plus" contracts, which treat PSFs as if they are on retainer—they respond quickly when they are needed, provide the service desired, and bill after the fact for the costs outlaid, adding a fixed award on top. The result encourages neither cost-cutting nor enhanced performance. The rationale for using this form of contract is efficiency: it allows PSFs to pro-



Corporate Combat: Belfer Center Fellow and Harvard Law School Alumna **Rebecca Ulam Weiner** (left) with **Margaret Sloane**, Iraq weapons inspection specialist, and Brigadier General (ret.) **Kevin Ryan** following Weiner's presentation "White-Collar Warfare: Private Security Firms and the Corporate Combat Zone."

vide surge capacity. However, when the surge turns out to be chronic and constant, this logic should be re-examined.

In short, the PSF industry's supporters and its fiercest critics share an assumption: that contractors allow for a forceful foreign policy on the cheap and quiet. In reality, contractors come with considerable strings attached, and these strings can prove costly and cumbersome.

Rebecca Ulam Weiner, a lawyer and specialist in the implications of corporate law on military policy, is an International Security Program fellow.

Belfer Center Fellow

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discussed the military's role at roundtable discussions sponsored by the Belfer Center. Ahlers will also work with the Kennedy School to lead a group of students in developing a governance project based on first-hand accounts from residents and leaders in New Orleans.

The Belfer Center will incorporate the many lessons learned from Katrina into classes to educate the next generation of leaders.

As New Orleans continues its recovery, the Belfer Center will incorporate the many lessons learned from Katrina into classes that educate the next generation of leaders. Some Belfer Center faculty and fellows and others from the Kennedy School are considering a new project that uses Katrina as a model for improving future disaster preparation.



Q&A Kelly Sims Gallagher

Kelly Sims Gallagher is director of the Belfer Center's Energy Technology Innovation Project (ETIP). ETIP analyzes and promotes effective strategies for developing and deploying cleaner and more efficient energy technologies in three of the biggest energy-consuming nations in the world: China, India, and the United States. Gallagher was named director of the program in 2003.

Q Why did ETIP decide to focus on China?

China has the fastest growing economy in the history of the world. More than 250 million people in China have been lifted out of poverty in the last 25 years. The improvements in the quality of life there have led to huge increases in electricity consumption and in the number of vehicles on the road—from fewer than a million in 1990 to more than 28 million today. More cars mean more oil consumption, resulting in greater dependence on imported oil. China built about 100 gigawatts of new coal-fired power plants in the last two years alone, which is roughly equivalent to the entire electricity generation system of India. As a result of all this growth, China's greenhouse gas emissions are now second only to the United States.

In 2001, we hosted a top official, **Xu Jing**, from China's Ministry of Science and Technology (MOST) here as a Visiting Scholar. He helped us build relationships with organizations and universities in China that have become our partners in helping China with its energy challenges. Today, we are collaborating with Tsinghua University, the China Automotive Technology and Research Center (CATARC), and the China Coal Research Institute. These partners in China have been essential to our efforts. I've worked hard to cultivate these relationships as have ETIP fellows **Hongyan He Oliver** and **Guodong Sun**.

Q ETIP played a major role in China's recent adoption of vehicle fuel-efficiency standards that are much stronger than the U.S. standards. How were you able to accomplish this?

"If we had the new Chinese standards in the United States, half of our SUVs and pickups would fail to meet the second phase of the standards."

China has become the second largest oil consumer and the world's fourth largest oil

importer. Forty percent of China's oil is now imported, half from the Middle East. Cars and trucks are driving this growth. Last year, China adopted weight-based fuel-efficiency standards that are especially hard on heavy vehicles like SUVs and pickups. The goal is to create an incentive for manufacturers to build smaller, more fuel-efficient cars and to avoid an explosion of SUVs and trucks. If we had the new Chinese standards in the United States, half of our SUVs and pickups would fail to meet the second phase of the standards. By raising automotive fuel-efficiency, the Chinese government hoped to reduce China's dependence on foreign oil.

Our research partner, CATARC, was in charge of the development of the standards. Together with them and MOST, we organized a series of four major workshops—two here at Harvard and two in China—and brought in experts from around the world to share their experiences with fuel-efficiency and air pollution standards. Those workshops helped Chinese officials understand the lessons from prior international experience and the links between energy use, fuel efficiency, air pollution, and greenhouse gas emissions. We've had a parallel series of workshops on coal issues as well.

"We're going to bring together auto manufacturers in China to assess the incentives and barriers to hybrid-electric technology."

Now, we're trying to help China further reduce its oil consumption by increasing the use of hybrid-electric vehicles. We plan to co-host a roundtable in Beijing this summer. We're going to bring together auto manufacturers in China to assess the incentives and barriers to hybrid-electric technology.

Q We understand that you facilitated the first-ever agreement between China's State Environmental Protection Administration and our own EPA on transportation issues. What did this mean for China and for the United States and what's ETIP's next step?

While China now has higher fuel-efficiency standards, it still has relatively weak pollution-control standards. In the big Chinese cities, vehicles are now the largest source of urban pollution and they are becoming a significant

source of greenhouse gas emissions as well. I helped work out an agreement between the U.S. EPA and China SEPA to address the energy and environmental challenges related to transportation in both countries. This agreement has led to a number of important joint projects sponsored by the two agencies.

One ETIP project tests the emissions of cars that are on the road to better understand why vehicle emissions are still high, and what can be done about it. We are working with CATARC, U.C. Riverside, and Tsinghua on an emissions testing project in Tianjan and Shanghai.

Q Is there any chance that China's increased fuel-efficiency standards will influence the United States to raise its standards?

Fuel-efficiency standards in the United States have been stagnant since the 1980s. China's main motivation was concern about oil imports. The United States now imports 60 percent of its oil, its highest level of dependence ever. If ever there were a time when the U.S. government might act, it would be now with the high gas prices and level of oil imports.

Q What is ETIP's focus in India?

In collaboration with partners there, we are developing a road map for cleaner coal in India as well as studying technological change in the passenger car industry. We have also assessed the potential for scaling up biomass gasification, which would be of great benefit to India since approximately one-third of India's primary energy supply comes from traditional biomass fuels, and better energy services are needed for the poor.

Q You have a book coming out about your work in China: *China Shifts Gears: Automakers, Oil, Pollution, and Development*. Tell us a little about it.

My book explores the development of the auto industry in China and its implications for energy, the environment, and economic growth. I was particularly interested in the role of foreign automakers, and how they might contribute to the modernization of the industry to help China "leapfrog" to more advanced technology. I used case studies to look at the extent to which the U.S. Big Three transferred cleaner and more advanced technology to their joint venture partners in China during the eighties and nineties.

Providing Leadership . . . Advancing

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Two Roads: Ambassador **Dennis Ross** answers “What’s Next in the Middle East?” in the Belfer Center library in December. Ambassador Ross played a lead role in the Middle East peace process in both the George H.W. Bush and Bill Clinton administrations.

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Remembering Rights: Yemen’s Minister of Human Rights, **Amat Al-Aleem Alsoswa**, discusses protection of human rights in an age of terrorism during a November visit co-hosted by the Belfer Center’s Governance Initiative in the Middle East and the Carr Center for Human Rights. In December, she was named assistant secretary-general, assistant administrator of United Nations Development Programmes, and director of its Regional Bureau for Arab States.

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Superpower Science: China’s Vice Minister for Science and Technology **Yong Shang**, a former senior fellow with the Belfer Center’s Science, Technology, and Public Policy program and the Mossavar-Rahmani Center for Business and Government, presents “China’s New S&T Strategy and Policy” at a Belfer Center lunch in December. Shang’s official responsibilities include formulation of strategies for China’s science and technology development and research.

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Nuclear Family? Senior Associate at the Carnegie Endowment for International Peace and formerly the National Security Council’s Special Assistant to the President and Senior Director for Strategic Planning in Southwest Asia **Ashley Tellis** discusses “The Bush Administration, India, and Civil Nuclear Cooperation” with the Belfer Center Board of Directors in November.

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Surprise Attacks: International Security Program Fellow **Jacqueline Newmyer** speaks on war initiation and strategic surprise to colleagues in the Belfer Center library in January. She co-taught a seminar “Strategies of Tyrants” in Harvard’s Department of Government during the fall semester.

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Facts from the Front: General **Ralph E. “Ed” Eberhart**, commander of the North American Aerospace Defense Command and U.S. Northern Command, presents “Homeland Security and Homeland Defense” to Belfer Center faculty and the broader Harvard community in November. Eberhart is the first commander of NORTHCOM, a combatant command created by President George W. Bush in the wake of the September 11 attacks.

BELFER CENTER



Strategic Alliance: Belfer Center Executive Director for Research **Xenia Dormandy** presents “A New U.S.-India Alliance—Why Bother?” to faculty and students in November. Dormandy was director for South Asia at the Nation Security Council in 2005 when the United States formed a groundbreaking strategic partnership with India. Seated next to her is **Roy J. Glauber**, recipient of the 2005 Nobel Prize in Physics.

SPEAKERS

Advancing Policy-Relevant Knowledge

MARTHA STEWART



Nobel Thoughts: International Atomic Energy Agency Director General and 2005 Nobel Peace Prize Laureate **Mohamed ElBaradei** (left) with Harvard's Mallinckrodt Professor of Physics and winner of the 2005 Nobel Prize in Physics **Roy J. Glauber** at a reception following ElBaradei's Kennedy School Forum presentation on nuclear nonproliferation in November.



Bio-Prepared: George Washington University Distinguished Professor of Microbiology and Immunology **Ken Alibek** speaks to Kennedy School students and Belfer Center fellows on "The Future of Chemical and Biological Weapons" in November. Alibek served as first deputy chief of the civilian branch of the Soviet Union's offensive biological weapons program. Next to Alibek is Thomas Dudley Cabot Professor of the Natural Sciences and Belfer Center Board member **Matthew Meselson**.

BELFER CENTER



Overseas Update: General **Barry McCaffrey**, former director of the White House Office of National Drug Control Policy and adviser to the administration, Congress and the military, speaks at a director's seminar on his involvement in NATO's

counterterrorism working group. International Security Program Director **Steven Miller** listens to McCaffrey at the January event co-sponsored by the Kennedy School's National Security Program.

Word from the Kingdom: His Royal Highness Prince **Turki Al-Faisal**, Saudi Arabia's ambassador to the United States, is joined by Belfer Center Board Member **John Deutch**. The

ambassador presented "Facing Global Challenges Together" at the Kennedy School Forum during his visit in February.



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Debbie West, representing **Robert I. Rotberg**, editor of *Battling Terrorism in the Horn of Africa*; and **Stephen M. Walt**, *Taming American Power: The Global Response to U.S. Primacy*. In the front row (left to right) are: **Karen Motley**, executive editor of the BCSIA Studies in International Security book series and organizer of the reception; Belfer Center Director **Graham Allison**; and Belfer Center Executive Director for Research **Xenia Dormandy**. Celebrated in absentia were authors **Calestous Juma**, lead author with **Lee Yee-Cheong** of the publication *Innovation: Applying Knowledge in Development*, the final report of the UN Millennium Project's Task Force on Science, Technology, and Innovation; and **Robert N. Stavins**, editor of *The Political Economy of Environmental Regulation*.

Advancing Knowledge: The Belfer Center celebrates recent publications of the Center's faculty and affiliates at a book reception in November. Authors attending included (top left to right): **Juliette Kayyem**, co-author of *Protecting Liberty in an Age of Terror*; **Sean Lynn-Jones**, series editor of the BCSIA Studies in International Security Book Series, which published **Alexander L. George** and **Andrew Bennett's** *Case Studies and Theory Development in the Social Sciences* and **Edward D. Mansfield** and **Jack Snyder's** *Electing to Fight: Why Emerging Democracies Go to War*; **Matthew Bunn** and **Anthony Wier**, authors of *Securing the Bomb 2005: The New Global Imperatives*; **Ivan Arreguin-Toft**, author of *How the Weak Win Wars: A Theory of Asymmetric Conflict*; **Philip Heymann**, co-author (with Juliette Kayyem) of *Protecting Liberty*; and (middle left to right) **Kelly Sims-Gallagher**, representing **Theo De Bruijn** and the late **Vicki Norberg-Bohm**, editors of *Industrial Transformation: Environmental Policy Innovation in the United States and Europe*;



SPOTLIGHT

Dan Schrag

Professor of Earth and Planetary Science **Dan Schrag** is director of the Harvard University Center for the Environment (HUCE). Schrag's work with HUCE intersects with Belfer Center efforts in several areas. Schrag teaches science and policy classes with John Holdren, director of the Belfer Center's Science, Technology, and Public Policy Program, and takes part in discussions sponsored by the Center on issues related to the environment and security. He is a member of the Belfer Center's energy security working group which is exploring with Russian counterparts ways in which this year's G8 summit, chaired by Russia, can make advances in global energy security. The Belfer Center is supporting a major seminar series organized by HUCE to debate critical issues related to energy.

As director of the Harvard University Center for the Environment (HUCE), **Dan Schrag** is in his element. His work is to bring people together—scholars, researchers, teachers, and students from diverse fields and departments at Harvard, along with other leaders in relevant fields—to delve into, debate, and recommend research and policies related to the environment and its many interactions with human society.

Schrag is a paleoclimatologist with a background in geology, geophysics, geochemistry, chemical oceanography, and public policy. His interest in science began in high school when he published his first scientific paper. As an undergraduate at Yale he majored in geology and political science, went to Berkeley for a Ph.D. in geochemistry, joined the Princeton faculty in 1994 where he focused on ancient climates, and moved to Harvard in 1997 where he began expanding his interest to include modern climates and climate change.

Schrag's current research involves finding geologic locations that might be appropriate for containing the huge amount of carbon that will be captured from burning coal if the new technology of coal gasification (a process being investigated by the Belfer Center to reduce greenhouse gases) is widely implemented.

In 2000, Dan Schrag's work in oceanography and climatology led to his being named a MacArthur Fellow. He was presented with the "genius grant" for "exceptional creativity, promise for important future advances based on a track record of significant accomplishments, and potential for the fellowship to facilitate subsequent creative work." Schrag was notified of the award by Science, Technology, and Public Policy Program Director **John Holdren**, a former recipient of the prestigious award and a long-time friend and mentor.

Among the works that earned Schrag the MacArthur grant was his research with Harvard Professor of Geology **Paul Hoffman** supporting the theory that the Earth was episodically frozen between 750 and 500 million years ago (known as "Snowball Earth"), immediately before a burst of diversification of plants and animals that formed the basic blueprints for many living things today.

Shortly after receiving the MacArthur grant, Schrag took the first of what would be many steps toward fulfilling one of his major objectives of bringing scholars together to discuss the intersection of science and policy. He and Holdren began hosting a weekly brainstorming breakfast that continues to attract a range of science and policy scholars and practitioners.

"For me, science is a social process," Dan Schrag said in 2001 when he accepted the James B. Macelwane Medal. "Ideas are created and refined from conversations with others," he said. "Arguments are framed, assumptions are questioned, but all through time spent with colleagues and friends."

"There is a national crisis of intellectual capital in energy research . . . Harvard has an obligation to grow the next generation of scholars in this area."

Schrag's agenda at the Center for the Environment includes ideas and actions. A major HUCE goal for the next decade is a university-wide energy initiative. "There is a national crisis of intellectual capital in energy research," he says, "and Harvard has an obligation to grow the next generation of scholars in this area." Schrag believes that low energy prices during the past few decades led to a deficit of energy scholars, noting that most current faculty who focus on energy became interested in the field in the 1970s when high oil prices spiked a recession. HUCE is addressing this shortage directly through an Environmental Fellows Program, which brings bright post-doctoral fellows to Harvard to work closely with faculty.

Building on the belief that energy challenges can only be solved if all sectors are engaged, HUCE is working to secure funding for new appointments in energy research at each of Harvard's relevant departments—from the Kennedy School and Division of Engineering and Applied Sciences to the Business

School and School of Design. "The Center for the Environment will be the connector for the various faculty scattered around the university," Schrag says, "and will encourage interaction across disciplines, with all working on various issues related to energy—energy technology, energy and health, energy and design, energy efficiency, energy security."

"[T]he impacts of climate change are likely to be much more severe than most predictions suggest. There will be surprises..."

To engage energy experts beyond the Harvard community, HUCE began a major symposium series in February, "the Future of Energy," which brings a variety of leaders from industry, government and academia to present their perspectives. The Belfer Center is supporting this initiative and organizing brainstorming sessions between these visitors and students, faculty, and fellows.

Schrag feels that his work with energy is significantly linked with security and climate change. "The best information I can get from the geologic record says that the impacts of climate change are likely to be much more severe than most predictions suggest. There will be surprises; I can't predict exactly what these will be, but there will be surprises. We need to take climate change seriously and do everything possible to slow it down and reduce its impact."

Harvard's Geological Museum, where HUCE is located, features a global climate change exhibit designed by Schrag. The exhibit includes an interactive video presentation in which Schrag poses questions and allows visitors to make decisions about how much they would be willing to do to protect the planet. These are questions Schrag poses in a book he is writing, questions he plans to keep asking and working with colleagues to answer.



In January, Belfer Center Senior Fellow **Doug Ahlers** was part of the National Democratic Institute/Carter Center delegation to observe the Palestinian elections, a group that included Institute of Politics Director Jeanne Shaheen. Ahlers spent a week in December observing the Egyptian parliamentary elections and researching use of the Internet and mobile phone networks as political campaign tools leading up to the election.



International Security Program Fellow **James Bieda** was selected by the Air Force in December for promotion to the grade of Colonel. Prior to his term at the Belfer Center, Bieda was chief of the Communications and Information Division at 3rd Air Force Headquarters, RAF Mildenhall, UK.



Former Belfer Center Fellow **Maury Devine** was knighted by the King of Norway in November and presented the "Royal Norwegian Order of Merit," the highest award given to non-Norwegians for contributions to Norway. Devine is former president of Mobil Oil North Sea and has served on boards of several Norwegian organizations.



Calestous Juma, director of the Belfer Center's Science, Technology and Globalization Project, was elected to The Academy of Sciences for the Developing World (TWAS) for his contributions to policy research and his work on the implications of biotechnology for sustainable development in Africa. The principal aim of TWAS is "to promote scientific capacity and excellence for sustainable development in the South."



Belfer Center Senior Fellow Senator **Bob Graham** was honored in January with the "Woodrow Wilson Award for Public Service," presented by the Smithsonian Institution's Woodrow Wilson International Center for Scholars. The award was created to recognize people who share the 28th president's dedication to "enlightened and deliberate dialogue."

"THE UNITED STATES IS LOSING its competitive advantage and may soon lose its innovative edge. It does not invest fully in resources most critical for sustained high-tech leadership, and the most talented and productive regions of the Third World challenge our dominance with skills and efforts only we once possessed."

—**Lewis M. Branscomb**, "Innovate or Perish," *Los Angeles Times* (1 January 2006)

"SOME STATES MAY PURSUE ENRICHMENT and reprocessing technologies for non-economic reasons such as building nuclear weapons, developing naval nuclear propulsion, or boosting national pride. The multinational supply regime must therefore include punitive measures against these 'holdouts.'"

—**Ashton Carter**, "A Fuel-Cycle Fix," *Bulletin of Atomic Scientists* (January/February 2006)

"WHILE RECENT U.S. CONGRESSIONAL REPORTS have focused on the rise of China's economic and military power, far less attention has been paid to the rise of China's soft power. Yet in a global information age, soft sources of power such as culture, political values, and diplomacy are part of what makes a great power. Success depends not only on whose army wins, but also on whose story wins."

—**Joseph S. Nye**, "The Rise of China's Soft Power," *Wall Street Journal Asia* (29 December 2005)

"AMERICANS SPEND ABOUT \$3 BILLION A YEAR ATTEMPTING AND FAILING to expunge the Afghan poppy crop. The conclusions of a Kennedy School of Government project on Afghanistan estimate that providing annual guarantees for purchases of wheat at triple the world price would cost less than eradication."

—**Robert I. Rotberg**, "Sowing Afghan Security," *Boston Globe* (10 January 2006)

"A RISE IN THE OIL PRICE COULD HAPPEN AGAIN AT ANY TIME. There is little spare capacity in global oil production and oil demand is rising rapidly in China and other Asian countries. . . . The US was lucky after 2003 to escape the contractionary effect of an oil price rise even without an explicit change in monetary or fiscal policy. It would not be so lucky if a big oil price increase happened again now."

—**Martin Feldstein**, "America Will Fall Harder if Oil Prices Rise Again," *Financial Times* (3 February 2006)

"AFRICA HAS MADE DRAMATIC DEMOCRATIC STRIDES in recent years. Over the last 15 years, more than 30 countries have abandoned one-party dictatorships in favour of variants of multi-party democracy . . . In nascent African democracies, party platforms would help facilitate effective and accountable political parties. They are blueprints for the future . . . thus helping professionalise the political process."

—**Calestous Juma** and **Allison DiSenso**, "Political Parties as Tools of Democracy," *Daily Nation* (Kenya) (11 January 2006)

"INSTEAD OF DOCTRINALLY CLINGING TO ERADICATION, the international community should explore other means of decreasing Afghanistan's illicit economy, such as converting the still vast opium cultivation into legal production for medical opiates. The idea of transforming the cultivation for the production of codeine and morphine is promoted by the Senlis Council, a European drug policy think tank. Pointing to the successful implementation of such a scheme in Turkey, where it eliminated the large illegal cultivation of opium, the Senlis advocates ask: Why not Afghanistan?"

—**Vanda Felbab-Brown**, "Afghanistan and Opium," *Boston Globe* (18 December 2005)



At press time, the Belfer Center announced the appointment of **Jeffrey Lewis** as executive director of the Managing the Atom project. Lewis is a postdoctoral fellow at the University of Maryland's Center for International and Security Studies and author of the forthcoming *Minimum Means of Reprisal: China's Search for Security in the Nuclear Age* (MIT Press, 2006).



Former Belfer Center Research Assistant and Russia Specialist **Marcy McCullough** won an international essay contest for her paper "How NGOs respond when the state does not: Confronting the problem of HIV/AIDS in Russia." The annual contest is sponsored by the Association for the Study of Health and Demography in the former Soviet Union.

“GREAT POWER CONCERT IS POSSIBLE INVOLVING THE UNITED STATES, the United States, European Union, Russia, China, Japan and India. The eastern and western mainstays of co-operation are the U.S. and Europe on one side, and China on the other. Together they act to maintain peace among great powers and to prevent terrorism and the further spread of nuclear weapons.”

—**Richard Rosecrance**, “Two Patient Powers, One Peaceful World,” *Toronto Star* (20 December 2005)

“THE NEW MARTYRDOM IS DRIVEN BY HUMILIATION that differs significantly from the concrete grievances of traditional suicide bombers. The motives of the bombers of Bali, London, and most probably those of Amman are not rooted in the humiliation of a personally experienced occupation. Many of today’s martyrs, in fact, have enjoyed a relatively comfortable upbringing. Theirs is a suffering and humiliation felt vicariously through the calamities of their brethren in Iraq and Palestine.”

—**Assaf Moghadam**, “The New Martyrs Go Global,” *Boston Globe* (18 November 2005)

“IF RUSSIA IS GOING TO THROW ITS WEIGHT AROUND, it is better to have allies among those affected. The key to energy security is diversity—of pipelines as well as sources of supply. Small neighbors without options will suffer, but Europe may not.”

—**Joseph S. Nye**, “The Chimera of Russia’s Gas Power,” *Yemen Times* (23 January 2006)

“WITHOUT . . . A CLEAR-CUT SET OF CONDITIONS and unmistakable international attention, the militarization of Palestinian society will intensify, affect the Israeli elections adversely, and point the way to a grim future.”

—**Dennis Ross**, “The Danger of a Sharon Exit,” *USA Today* (24 January 2006)

“WHO COULD HAVE IMAGINED U.S. victory over its Cold War rival with a whimper rather than a bang? The tectonic collapse of one pole of a bipolar international system with so few aftershocks? . . . Russia is still the land of the Matrushkas and Potemkin’s village is much more subtle and complex than we realize. One peels off one shell only to find another each layer embodying elements of truth, competing with contradictory realities both within and beyond.”

—**Graham Allison**, “Fourteen Years After Evil Empire, A Stable Russia,” *Boston Globe* (26 December 2005)

“THE PRACTICAL REALITY, HOWEVER, IS that Hamas is a pivotal player in Palestinian politics, and no peace process can succeed without at least the tacit acceptance of its leaders. Moreover, Hamas’s participation in Palestinian politics is not necessarily a bad thing, and resisting it will very likely do more harm than good.”

—**Fotini Christia**, “Hamas at the Helm,” *New York Times* (27 January 2006)

“WHAT IS CLEAR, THOUGH, IS THAT PROJECT 100,000 WAS A FAILED EXPERIMENT. It proved to be a distraction for the military and of little benefit to the men it was created to help. Forty years later, amid new conflicts and a renewed manpower shortfall, we would do well not to make the same mistake again.”

—**Kelly M. Greenhill**, “Don’t Dumb Down the Army,” *New York Times* (17 February 2006)

“INDIA TODAY HAS A LARGER MIDDLE CLASS than the combined population of France, Germany and Britain. And that middle class is rapidly increasing. The US is India’s largest trading partner.”

—**Robert Blackwill**, “Forging Fresh Bonds,” *The India Times* (27 February 2006)



The Nixon Center’s “2005 Distinguished Service Award” was presented in January to Belfer Center International Council Chairman and America’s first Secretary of Energy **James Schlesinger** and to Senator Pete Domenici, chairman of the Senate Committee on Energy and Natural Resources. Secretary of Energy Samuel W. Bodman delivered the keynote address at the awards dinner in Washington, D.C.



Energy Technology Innovation Project (ETIP) Fellow **Jennie Stephens** was named assistant professor of Environmental Science and Policy in the Department of International Development, Community, and Environment at Clark University in 2005.



Kennedy School Associate Professor of Public Policy **Monica Duffy Toft** was appointed to the Belfer Center Board of Directors in January. A faculty associate at the Belfer Center for five years, Toft also serves as associate director of Harvard’s Olin Institute for Strategic Studies.



Kennedy School Academic Dean and Belfer Center Professor **Stephen Walt** is a finalist for the prestigious “2005 Lionel Gelber Prize” for his book *Taming American Power: The Global Response to U.S. Primacy*. The annual award recognizes the top piece of writing in international affairs. The winner will be announced in March.



Belfer Board Member and former U.S. Deputy Secretary of Defense **John White** was named Robert and Renée Belfer Lecturer at the Kennedy School of Government in January. The Belfer Lectureship is awarded to a scholar who demonstrates a distinguished contribution within the academic community and as a policy practitioner. White, a former director of the Kennedy School’s Mossavar-Rahmani Center for Business and Government, has been a public policy lecturer at the Kennedy School since 1998.



International Security Program Fellow **Sebastian Rosato** has accepted a position as assistant professor of political science at the University of Notre Dame.

Rosato, whose research at the Belfer Center has focused on twentieth century European integration, is in the process of preparing a book manuscript entitled *The Strategic Logic of European Integration*. He will take up his new post in August.



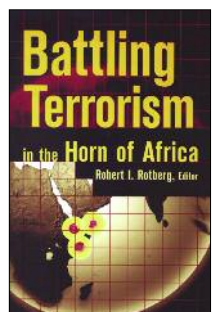
International Security Program Fellow **Todd Sechser** will take on new duties next fall as assistant professor at the University of Virginia’s Department of Politics. While at the Belfer Center,

Sechser researches bargaining and diplomacy, military doctrine and civil-military relations, the effectiveness of military threats in international crises, and the consequences of nuclear proliferation.

HOT OFF THE PRESSES

Battling Terrorism in the Horn of Africa

Edited by Robert I. Rotberg
Brookings Institution Press and the World Peace Foundation



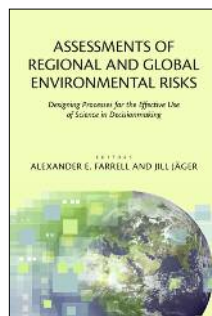
Although Afghanistan and Iraq are at the epicenter of America's war on terror, terrorist groups threaten other parts of the world as well. One of the most dangerous is the greater Horn of Africa region—Djibouti, Eritrea, Ethiopia, Kenya, Somalia, and the Sudan, along with Yemen, their volatile neighbor. Al Qaeda has already struck in the region, and the area's complex history, shared poverty, poor governance, underdevelopment, and renowned resistance against Western colonizers have created an intricate web of opportunity for potential terrorists.

“[T]here is no substitute for greater U.S. involvement in any and all forums.”

“In this timely book, Robert Rotberg and his co-authors provide authoritative insight into the struggle against terrorism in the Horn, analyzing what has been done and what work remains. The contributors—prominent scholars and practitioners, including several current and former U.S. ambassadors—argue that Washington needs to craft a nuanced new policy appropriate to the region and its individual countries. They stress that there is no substitute for greater U.S. involvement in any and all forums.”

—The Publisher

Assessments of Regional and Global Environmental Risks: Designing Processes for the Effective Use of Science in Decision-making



Edited by Alexander E. Farrell and Jill Jäger
RFF Press

As environmental challenges grow larger in scale and implications, it is increasingly important to apply the best scientific knowledge in the decisionmaking process. Editors Farrell and Jäger

present environmental assessments as the bridge between the expert knowledge of scientists and engineers on the one hand and decisionmakers

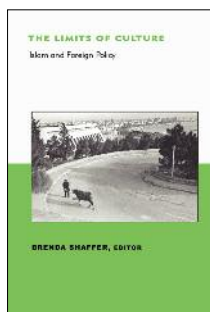
on the other. When done well, assessments have a positive impact on public policy, the strategic decisions of private firms, and, ultimately, the quality of life for many people.

“Establishes a useful framework for judging experiences in the design and use of past assessments and presents those evaluations as a guide for future assessments.”

—David H. Moreau, University of North Carolina at Chapel Hill

The Limits of Culture: Islam and Foreign Policy

BCSIA Studies in International Security
Edited by Brenda Shaffer
The MIT Press



In recent years, analysts of world affairs have suggested that cultural interests—ethnicity, religion, and ideology—play a primary role in patterns of conflict and alliances, and that in the future the “clash of civilizations” will dominate international relations. *The Limits of*

Culture explores the effect of culture on foreign policy, focusing on countries in the geopolitically important Caspian region and paying particular attention to those states that have identified themselves as Islamic republics—Iran, Taliban Afghanistan, and Pakistan.

The contributors to *The Limits of Culture* find that, contrary to the currently popular view, culture is rarely more important than other factors in shaping the foreign policies of countries in the Caspian region. As the essays in *The Limits of Culture* make clear, the emerging foreign policies of the Caspian states present a significant challenge to the culturalist argument.

“[T]his volume helps us understand the specific conditions under which culture does—and, perhaps more importantly, doesn’t—matter”

“Across the stretch of territory that used to be called the Near East, from the eastern Mediterranean to the Central Asian steppe, facile culturalist explanations for political behavior are once again in vogue. . . . Blood, belief, and belonging can be important at times, but this volume helps us understand the specific conditions under which culture does—and, perhaps more importantly, doesn’t—matter.”

—Charles King, Georgetown University

Forthcoming

Uncertainty Underground: Yucca Mountain and the Nation's High-Level Nuclear Waste

Edited by Allison M. Macfarlane and Rodney C. Ewing
The MIT Press, forthcoming May 2006

Despite approval by Congress and the Bush administration and over \$7 billion already spent, the Yucca Mountain, Nevada site for disposal of highly radioactive spent nuclear fuel is not yet in operation. The reasons for the delay lie not only in citizen and activist opposition to the project but also in the numerous scientific and technical issues that remain unresolved.

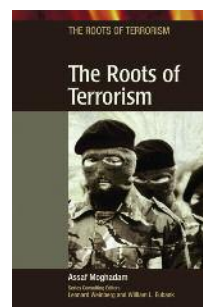
“[A] well-chosen set of articles by technical experts . . .”

“Macfarlane and Ewing have compiled a well-chosen set of articles by technical experts describing the technology and regulatory process for developing the Yucca Mountain repository. The authors present arguments that Yucca Mountain has not been and may never be shown to be an appropriate repository for high-level radioactive waste. Opponents of the project should read this book for support; supporters, to understand the obstacles to be overcome.”

—John F. Ahearne, former chairman, U.S. Nuclear Regulatory Commission

The Roots of Terrorism

The Roots of Terrorism Series
By Assaf Moghadam
Chelsea House, forthcoming May 2006



The Roots of Terrorism guides the reader through the many factors that give rise to terrorism, demonstrating that it is ultimately the interaction of these factors that brings about terrorist attacks. This broad overview of the root

causes of terrorism is designed to teach an appreciation of the complexities of this social phenomenon, while exposing commonly held yet erroneous beliefs that might otherwise be construed as easy explanations.

“This comprehensive title is a useful tool for students who want to understand the origins of terrorism and how it has evolved through time.”

—The Publisher

Carter Urges Congress to Consider Benefits of U.S.–India Nuclear Agreement

By Gretchen Bartlett

Preventive Defense Project Co-Director **Ashton Carter** appeared before the Senate Foreign Relations Committee in November to comment on the implications of the July 18, 2005 Joint Statement between the United States and India committing both countries to cooperate in the area of civil nuclear power. India, one of the countries never to have signed the NPT, tested nuclear weapons in 1974 and 1998 and is barred by U.S. law and international convention from engaging in any nuclear commerce with the United States. The Senate Foreign Relations Committee's NPT Policy Advisory Group on the Nuclear

Carter: View U.S.–India deal “through a larger lens.”

Nonproliferation Treaty, which Carter co-chairs, was asked to review the Bush-Singh deal and recommend to the Congress whether to support or reject the Bush initiative.

Although Carter cautioned that the U.S.–India deal was premature and may come at appreciable cost to U.S. nonproliferation efforts in other critical regions, he stressed the need to view the deal “through a larger lens.”

The United States, he said, would be giving ground on the nuclear front in exchange for benefits of a larger strategic partnership with India. Carter suggested benefits might include assistance with curbing Iran's nuclear program, serving as a potential strategic counterweight to China, assistance in managing future crises involving Pakistan, military access and basing rights, and preferential access to the Indian market for the U.S. nuclear and defense industries.

Gretchen Bartlett is associate director of the Preventive Defense Project.

Munich Conference Focuses on Security, U.S.–European Partnership

By Gretchen Bartlett

As a delegate to the 42nd Munich Conference on Security Policy in February, Preventive Defense Project Co-director **Ashton Carter** met with defense and foreign ministers from around the globe to discuss the transatlantic relationship between Europe and the United States and how best to restore this key partnership. The delegation, led by Senators **John McCain** and **Joseph Lieberman**, took part in discussions on topics ranging from global challenges for German foreign and security policy to NATO's future role in international peace keeping and global foreign policy and security interests in Asia.

Strengthening Ties: Preventive Defense Program Co-director **Ashton Carter** (left), Supreme Allied Commander Europe General **James Jones** (center), and Senator **John McCain** (right) discuss issues raised during the 42nd Munich Conference on Security Policy in February. They were among the high-level officials and experts taking part in the conference which examined topics ranging from global challenges for German foreign and security policy to NATO's future role in international peace keeping and global foreign policy and security interests in Asia.



COLONEL SAMUEL MUNDY

International Security

WINTER 2006
Vol. 30, No. 3

Success Matters: Casualty Sensitivity and the War in Iraq

Since the Vietnam War, U.S. policymakers have worried that the American public will support military operations only if the human costs of the war, as measured in combat casualties, are minimal. **Christopher Gelpi** and former Belfer Center Fellow **Peter D. Feaver** of Duke University, together with **Jason Reifler** of Loyola University Chicago, challenge this notion. Although the public is rightly averse to suffering casualties, the level of popular sensitivity to U.S. military casualties depends critically on the context in which those losses occur. The public's tolerance for the human costs of war is primarily shaped by the intersection of two crucial factors: beliefs about the rightness or wrongness of the war, and beliefs about the war's likely success. The impact of each depends on the other. Ultimately, however, beliefs about the likelihood of success matter most in determining the public's willingness to tolerate U.S. military deaths in combat.

Who “Won” Libya? The Force-Diplomacy Debate and Its Implications for Theory and Policy

Bruce W. Jentleson and **Christopher A. Whytock** of Duke University examine the role of U.S. coercive diplomacy in Libya's decisions to settle the Pan Am 103 Lockerbie terrorism case and to abandon its weapons of mass destruction programs. In addition, they

International Security is America's leading journal of security affairs. It provides sophisticated analyses of contemporary security issues and discusses their conceptual and historical foundations. The journal is edited at the Belfer Center and published quarterly by the MIT Press. Questions may be directed to: IS@harvard.edu

consider the implications of the Libya case for theories of force and diplomacy—particularly coercive diplomacy—and U.S. policy toward Iran and North Korea.

Deterring Terrorism: It Can Be Done

Robert F. Trager of Oxford University and **Dessislava P. Zagorcheva** of Columbia University examine the role of deterrence in counterterrorism strategies. Their analysis of the structure of terrorist networks and the processes that produce attacks, as well as the multiple objectives of terrorist organizations, suggests that many terrorist groups and elements of terrorist support networks can be deterred from cooperating with the some of the world's most threatening terrorist groups, including al Qaeda. The authors offer an analysis of U.S. and Philippine policy toward the Moro Islamic Liberation Front and the Abu Sayyaf Group to illustrate both the potential of this approach and the risks of using force.

Winning with Allies: The Strategic Value of the Afghan Model

When the war in Afghanistan ended in 2002, the country was largely governed by Afghans. **Richard B. Andres** and **Thomas Griffith Jr.**, both of the School of Advanced Air and Space Studies, and **Craig Wills** of U.S. Air Force Strategy Flight, South Korea, attribute this result to the U.S. decision to engage in a different type of military operation. Rather than inserting thousands of troops into Afghanistan, the United

States chose to rely on special forces, airpower, and Afghan allies. In the operation, approximately fifty U.S. special forces personnel accomplished what planners had believed would require 50,000 U.S. ground troops. In the wake of the war, military planners largely dismissed the Afghan model as unworkable elsewhere. The performance of the model in Afghanistan and later in Iraq, however, demonstrates that the traditional military's pessimism toward this method is unwarranted. Indeed, the model vastly improves U.S. leverage in coercive diplomacy and war because it requires few U.S. ground troops and facilitates the transition to stability and democracy by empowering indigenous allies.

Allies, Airpower, and Modern Warfare: The Afghan Model in Afghanistan and Iraq

Unlike **Andres**, **Griffith**, and **Wills**, **Stephen D. Biddle** of the U.S. Army War College finds the applicability of the Afghan model to be more limited. Where U.S. allies have had skills and motivation comparable to their enemies, the model has proven extremely lethal even without U.S. conventional ground forces. But where U.S. allies have lacked these skills, they have proven unable to exploit the potential of American airpower. The Afghan model can thus be a powerful tool, but one with important preconditions for its use—and these preconditions limit its potential to transform U.S. force structure or defense policy.

*The Robert and Renée Belfer Center
for Science and International Affairs*

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Afghan Officials, Experts Debate Best Steps for Country's Future

An intensive three-day conference hosted by the Belfer Center's Program on Intrastate Conflict and Conflict Resolution focused on the challenges and opportunities of state building in Afghanistan. Participants agreed that effective reconstruction of Afghanistan depends on strengthening security, reducing poppy production, decreasing the hold of narcoterrorists, improving regional commercial linkages, enhancing a sense of nationhood, and bolstering good governance.

Organized and co-chaired by **Robert Rotberg**, director of the Program on Intrastate

Proposals included introducing massive monetary incentives for growing wheat instead of poppies ...

Conflict, and former Belfer Center Fellow **Sham Bathija**, an Afghan national and coordinator of the United Nations Conference on Trade and Development for Central Asia and Affiliated Institutions, the conference included a number of high-level Afghan officials, United Nations representatives, NGO leaders, and international experts. Afghan participants included Minister of Commerce **Hedayat Amin-Arsala**, former Minister of the Interior **Ali Jalali**, Afghanistan's Ambassador to Britain **Ahmad Wali Masoud**, and Afghanistan Red Crescent President **Fatima Gailani**.

Proposals included introducing massive monetary incentives for growing wheat instead of poppies—an essential alternative crop that Afghans already grow and depend upon for subsistence. It was estimated that using outside assistance funds to triple the current world price

for wheat, and providing guaranteed purchases through a marketing board mechanism, would cost less than expenditures on eradication, would remove the current income incentives for poppy growing, and would rapidly reduce the production. Participants noted that greater wheat production would be good for hungry Afghans and reduce the growing linkages between narco-trafficking and terror.

Conference participants agreed that landlocked Afghanistan's future prosperity depends on lessening today's dependence on opium and returning the country to its former economic status. "A sense of common purpose would help develop Afghanistan economically," says Intrastate Conflict Program Director Robert Rotberg, "and because the central government has limited visibility and legitimacy beyond Kabul, greater unity would strengthen the nation."

Participants agreed that improved governance is essential to accomplish these objectives and that the key governance deliverable is security and enhanced rule of law. "A climate of impunity for powerful people now prevails and must be altered," Rotberg notes, "and the state must not continue to be complicit in the abuse of ordinary civilians." The participants concluded that Afghanistan requires a robust legal framework.

The Intrastate Conflict Program published a policy paper summarizing the major conclusions of the conference and is in the process of completing a book detailing recommended next steps.

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Steps to Stability: **Alastair McKechnie** (left), World Bank country director for Afghanistan, presents "Building a Robust Economy" at the Program on Intrastate Conflict's "State Building in Afghanistan: Challenges and Opportunities" conference in December. **Robert Rotberg** (center), director of the Belfer Center's Intrastate Conflict program, co-chaired the meeting with Belfer Center 2004–05 International Security Program/Intrastate Conflict Fellow **Sham Bathija**, coordinator of the United Nations Conference on Trade and Development for Central Asia and Affiliated Institutions.