



# BAKER INSTITUTE REPORT

NOTES FROM THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY OF RICE UNIVERSITY

## AVIAN FLU POSES GLOBAL HEALTH CHALLENGES: THE NEED FOR A CULTURE OF PREPAREDNESS

The growing threats of Avian Influenza A (H5N1) Virus and other pandemic illnesses pose major, global health challenges, but ultimately, the key to success in handling them will be determined by the degree to which leadership at all levels inculcates “a culture of preparedness” and exhausts “the realm of the possible” until a vaccine is available. Preparedness involves evaluation, planning, training, and exercises at the federal, state, and local levels.

These two themes were the topic of discussion at a December 1 Baker Institute forum, “Avian Influenza and Severe Acute Respiratory Syndrome

(SARS): Global Challenges for Health Diplomacy.”

Three experts in the fields of public health and disaster medicine focused on the need to develop a culture of readiness through public education and media communications, so that people can learn how to prevent and treat the illness. They also discussed what can be done and what resources can be leveraged to minimize the threat of infection until a vaccine is available.

“We are not an island,” said S. Ward Casscells, vice president for biotechnology at the University of Texas Health Science Center at

Houston (UTHSC-H). “We have to be as engaged as we are in [combating] ... terrorism.”

In framing the issue, Baker Institute director Edward P. Djerejian cited World Health Organization statistics showing that, to date, 133 people had been stricken with the Avian Influenza A (H5N1) Virus (H591 virus), and more than half the people infected—68—had died from the disease, which also caused the death or destruction of more than 150 million birds. He noted the

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## SAUDI FOREIGN MINISTER SAYS U.S. MUST ACT TO AVERT REGIONAL CONFLAGRATION

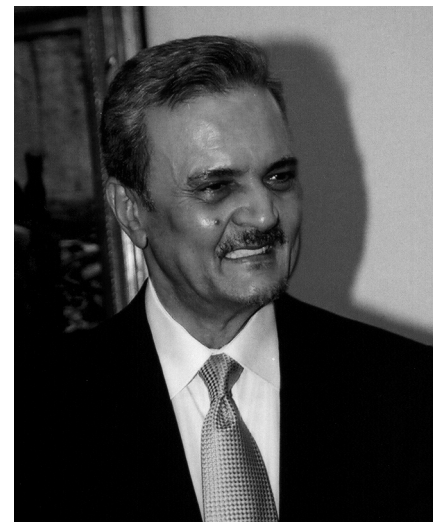
In a September 21, 2005, keynote address, His Royal Highness Prince Saud Al Faisal Bin Abdulaziz Al-Saud, foreign minister of the Kingdom of Saudi Arabia, expressed grave concern that the United States is not acting more forcefully to prevent the potential disintegration of Iraq and the threat of a major regional conflagration.

In a question and answer session following his lecture, “Saudi Arabia and the International Oil Market,”

Prince Saud said that the United States, rather than enforcing its historic role as both a protector of a sovereign Iraq and a stabilizing regional force, was instead, inadvertently facilitating powerful Iranian interests infiltrating southern Iraq.

He noted that during the Iran-Iraq War, from 1980 to 1988, the United States and Saudi Arabia intervened to save Iraq from Iranian attacks. The United States

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*His Royal Highness Prince Saud Al Faisal Bin Abdulaziz Al-Saud*

## LETTER FROM THE DIRECTOR



It is with profound sadness that I write of the passing away October 28, 2005, of Nobel Laureate Richard

Smalley, co-discoverer of the “buckyball” and one of the best-known and respected scientists in nanotechnology. The world of knowledge has lost a great scholar; Rice University has lost a great member of its faculty; and the Baker Institute has lost a great friend.

It has been our privilege at the Baker Institute to have collaborated with Rick Smalley on many important initiatives and to have played a role co-sponsoring the program on “Energy and Nanotechnology” at Rice under his leadership. Rick Smalley believed that nanotechnology could hold the answer to the world’s most pressing material needs. Most recently, he had been working to educate the public, industry leaders, policymakers, and fellow scientists on how applications of nanotechnology could be used to solve what he described as the number one problem facing humanity in the 21st century—the need for cheap, clean energy.

“Energy is unique not only in its ability to give us answers to most of the world’s 10 most pressing problems, but it is uniquely something we can do something about,” Rick Smalley told a meeting of leading scientists, policymakers, energy specialists, and industry leaders in 2003 at the institute. “The earth is

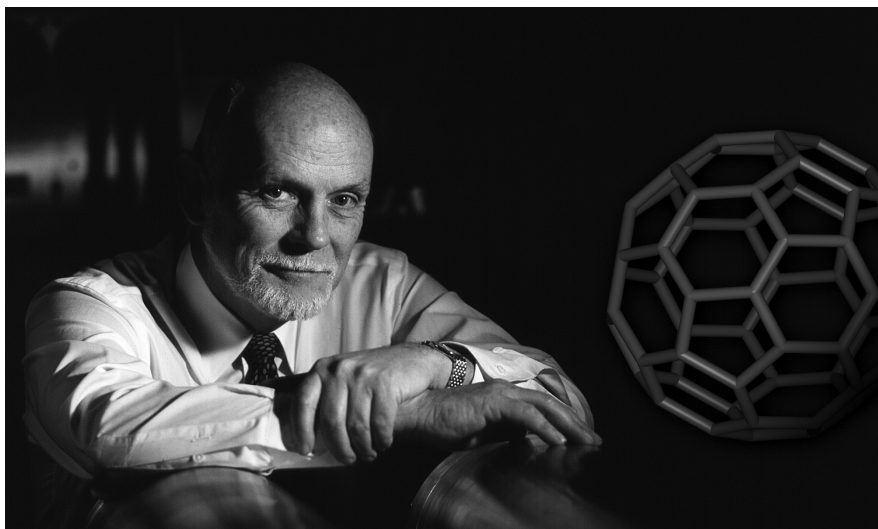
swimming in energy; there is plenty of energy there to be had. The only reason we have a problem is that we haven’t figured out a technical way to do it cheaply.”

Yet in one of his most ambitious scientific research programs, the “Armchair Quantum Wire” project launched last April, Smalley espoused a vision for revolutionary change in how energy would be produced, distributed, and delivered. Representing what is perhaps the most important policy path yet proposed on how to solve the energy problem—through revolutionary change in electricity—Rick Smalley’s vision would permit electricity to be carried over long distances economically via high-voltage carbon nanotube wires with little or no loss of supply, and facilitate the access of remote energy sources, such as solar power farms. This new technology would be coupled with development of enhanced battery storage technolo-

gies that could promote distributed energy.

Rick Smalley’s accomplishments as a scientist were formidable, but his contribution to society is best measured by his passionate belief that science can help us usher in a better world. “Be a Scientist, Save the World” was his mantra, and his commitment to that ideal inspired his colleagues, admirers, and political leaders alike. His engaging humor, luminous smile, abiding friendship, and commitment to excellence continue to inspire us to carry out his life work to both honor his memory and to reach the important goals that he has laid out for us.

Edward P. Djerejian



*“Be a Scientist, Save the World.” Richard Errett Smalley, 1943-2005*

# ENERGY AND NANOTECH CONFERENCE EXPLORES REVOLUTIONARY SOLUTIONS TO ENERGY DILEMMA

In 2005 the United States consumed more electricity than any other country in the world. As emerging economies such as China and India begin to compete for an increasing share of the world's energy resources, technology will inevitably play a vital role in ensuring that the world's energy needs are successfully met. Four years ago, the Baker Institute, together with Rice University's Center for Nanoscale Science and Technology (CNST) and the Energy and Environmental Systems Institute (EESI), initiated a joint program to study the implications of nanotechnology for energy. Last year, the Nanotechnology and Energy program organized its third annual energy and nanotechnology conference, "Electricity Storage and the Grid," held November 15-16. The conference brought together scientists, industry executives, policy experts, and economists from around the world to discuss opportunities for nanoscience to contribute to revolutionary changes to the current system of providing electricity in the United States. The topic was particularly timely, coming at a period of rising energy prices, because innovation to the electricity system is seen as a key stepping stone to facilitating a transition to alternative sources of energy, small-scale, decentralized distributed energy systems, and, eventually, plug-in hybrid vehicles.

The conference opened with a brief memorial to the vision of Nobel Laureate and Rice University

Professor Richard Smalley. While Smalley passed away in October 2005, his vision to transform the existing transmission grid system in the United States and transport needed electricity over continental distances remains at the heart of discussions on how to improve the existing capacity of our grid system and transmit necessary electricity

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*"How do we move  
from having  
technology to getting  
technology used?"*

– Peter Hartley

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more efficiently. Smalley recognized that an improved grid could serve as the new oil by revolutionizing the ways in which we supply and use electricity. Video excerpts from a talk he gave on a visionary grid-electricity concept were included in the conference opening, followed by keynote speeches by Gregory Yurek, president and chief executive officer of American Superconductor Corporation, Jesse Berst, president of the Center for Smart Energy, and Arthur Kressner, director of research and development and

power supply for Consolidated Edison Company in New York.

Conference presenters discussed the challenges and benefits of implementation of smart grid technologies and the relevance of new technologies to U.S. national energy policy. Berst noted that years of underinvestment, recent regulatory changes, and rising electricity costs have added to a new sense of urgency to improve the capacity and reliability of the existing grid system. A "revolution through evolution" in our grid system, according to Berst, could be tied to the potential of renewable energy sources, improved national security, a more digitized economy, and economic growth.

But as Rice energy economist Peter Hartley asked in opening the session on electricity and public policy, "How do we move from having technology to getting technology used?" Yurek, of American Superconductor, addressed the implications of new federal research and development incentives for innovative technologies both within and outside the superconductor industry, and he said he and was optimistic about such incentives for better wire technologies. He noted that American Superconductor was beginning a major pilot program for a superconductive wire to be used in China. Kressner, from Consolidated Edison, explained that some of the physical constraints in New York to lay additional copper wires were spurring utilities like

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# INSTITUTE PUBLISHES RECOMMENDATIONS FOR ROADMAP PHASE ONE IMPLEMENTATION

In December the Baker Institute published a policy paper, “Trilateral Action Plan for Roadmap Phase I Implementation.” It provides recommendations for trilateral action by the Palestinian Authority, by the government of Israel, and by the international community led by the United States during the transitional election period in Israel and Palestine. The aim of the policy paper is to sustain momentum, strengthen international mechanisms for Roadmap implementation, and prepare the groundwork for the resumption of bilateral negotiations for phase two and phase three of the Roadmap. Following is the “Strategic Framework” for the recommendations as contained in the policy paper:

In the Baker Institute’s Israeli-Palestinian Working Group policy paper published in February 2005, “Creating A Roadmap Implementation Process Under United States Leadership,” the institute recommended that the United States and international community develop support structures to assist the Israelis and Palestinians in carrying out their obligations under phase one of the Roadmap. In line with these recommendations, the United States and the Quartet empowered General William Ward and former World Bank president James Wolfensohn to coordinate the work of Palestinian security reform and economic development. These missions have achieved important

tactical successes in laying the groundwork for strategic change. In building upon these accomplishments, the coming six months should focus on three specific objectives: strengthening the international support structure, promoting economic development, and building effective security capacities to meet the needs of both Israeli and Palestinian societies.

At this stage, both Israelis and Palestinians are preparing for elections. Consequently, neither side can be expected to undertake significant political action, and, with a focus on domestic audiences, a hardening of positions may be expected. Concurrently, however, until the end of the election period and the formation of new governments, all parties—the Israelis, Palestinians, the United States-led Quartet, Egyptians, and Jordanians—can be expected to seek a continued period of calm and stability.

In discussions with Israeli and Palestinian decisionmakers, delegates from the Baker Institute gained the impression that following the election period, ending in the spring of this year, both parties will consider moving from tactical measures to strategic change. The new Israeli prime minister, regardless of party affiliation, will have an interest in defining Israel’s borders, seeking international legitimacy for doing so and, if possible, Palestinian agreement. According to this scenario, Israel is

likely to seek negotiations once the Palestinians meet their phase one Roadmap obligations. Under the leadership of President Abu Mazen, the Palestinian Authority appears determined to move toward phase one implementation in order to return to Permanent Status negotiations.

For strategic change to be achieved, the Palestinian Authority will need sufficient domestic legitimacy in order to carry out its phase one obligations: creating law and order, effective government, and a monopoly over the use of force. The action points described in this paper all aim to enhance the legitimacy of the Palestinian Authority to carry out its phase one obligations.

The working assumptions of this paper are:

- Even if the Government of Israel (GOI) demonstrates its interest in moving toward strategic change to define its borders, it is not likely to agree to the renewal of bilateral negotiations until the Palestinian Authority (PA) makes substantial progress in establishing a functional government, retaining a monopoly over the use of force, and maintaining stability as well as tranquility;
- The interest of the parties to maintain stability over the coming months creates the need for effective engagement from the international community;
- A Trilateral Action Plan for the coming months, geared toward

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# BAKER INSTITUTE RABIN FELLOW ADDRESSES PROSPECTS FOR ISRAELI-PALESTINIAN PEACE SETTLEMENT

Yair Hirschfeld, the institute's Rabin fellow and a key strategist behind the historic Oslo peace process, said in an October 17 lecture at the institute that the coming months and year ahead could be a pivotal period during which substantial progress in Israeli-Palestinian peace negotiations could be made.

His remarks were particularly prescient, coming mere weeks before the dynamic events in November. First, Secretary of State Condoleezza Rice successfully brokered a stalemate in the negotiations, allowing for the opening of the border between Gaza and Egypt at Rafah. Second, Israeli Prime Minister Ariel Sharon announced his decision to form a new centrist party and hold parliamentary elections in March, which will have important implications for moving the peace process forward and

defining Israel's permanent borders.

Analyzing the peace negotiations of the past three decades, and specifically lessons learned from the Oslo and Camp David efforts, Hirschfeld spoke on the topic, "Oslo and After: A Participant's Report of the Peace Process." He said he was optimistic that the framework would be laid in the coming year for an end to the Israeli occupation of Palestinian territories and the creation of a two-state solution.

"Today I'm more optimistic than I was in 1993," said Hirschfeld, who is the institute's Isaac and Mildred Brochstein Fellow in Middle East Peace and Security in Honor of Yitzhak Rabin. A key change, he said, is the widespread recognition in Israel, by the Israeli prime minister, by local politicians, and increasingly by the settlers' move-

ment, of the necessity of a two-state solution—as originally conceived by the Oslo Accords signed in 1993, considered one of the most important developments in Arab-Israeli negotiations.

"From an Israeli point of view, the understanding then was and the understanding today is that the strategy of two states is the only way that Israel can maintain its *raison d'être* ... of being the place where the Jewish people will implement its right to self-determination and maintain a democratic and Jewish state," he said.

Specifically, Hirschfeld, who is director general of the Tel Aviv-based Economic Cooperation Foundation (ECF), said he thought reaching phase one of the proposed Roadmap for Peace, would be achievable "in the coming four to five months." Phase one would require that in order to start to negotiate the conditions of an agreement, the Palestinian region would be stabilized, with a functioning government in Palestine and the assurance of security and an end to violence for Israel. If the U.S. leadership keeps its pledge to enlist international support and help enforce the commitments of both Israel and the Palestinian Authority, phase one could be followed by a resumption of bilateral negotiations to create provisional borders, and ultimately, by the signing of a Permanent Status Agreement, Hirschfeld said.



*Yair Hirschfeld discusses the history of the Israeli-Palestinian peace negotiations from Oslo to the Roadmap and his hope for a solution in the coming year.*

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# SALLY RIDE: ATTRACTING WOMEN INTO SCIENCE HINGES ON STRONGER SOCIETAL SUPPORT IN SCHOOL

Sally Ride, the former NASA astronaut and first American woman to fly in space, said that if the United States is to remain technologically competitive, our society needs to do far more to encourage young girls, in particular, and children, in general, to pursue degrees and careers in science and engineering.

“It’s suicidal for a society that depends on science and technology to know nothing about science and technology,” said Ride, quoting the late astronomer and science popularizer Carl Sagan. “Our society today doesn’t put the value on science and technology that I believe it should, and it doesn’t put the value on science education that would enable a productive, technologically capable workforce.”

As the keynote speaker for a November 7 forum, “Reaching for the Stars: Increasing the Role of Women in Science and Engineering,” Ride said that society needs to encourage in girls “a sense of belonging in science” as early as middle school. She stressed that children—both boys and girls—need support, encouragement, role models, and access to high-quality education. “The vitality of our society depends on our ability to inspire and to educate these kids,” Ride said. “It’s up to all of us to elevate the value that our society puts on science.”

Following Ride’s address, a panel of distinguished women in the field concurred that the underrepresentation of women in the sciences and



*Sally Ride spends some time before her address speaking with a group of Rice students about the value of science education.*

the dearth of women, in particular, and scientists, in general, who are graduating with advanced technical degrees is a serious problem.

“I don’t think our society values a science major,” said Annell Bay, vice president of exploration, EP Americas for Shell Exploration & Production. “I don’t think our society values careers in science or understands how challenging, how demanding, or how exciting they can be.” Bay suggested that society and industry should do more to promote what those careers are. She also warned that because of the relative shortage of graduating scientists, and petroleum engineers in particular, “This country’s going to be in a significant crisis of who is going to run the energy industry in the next 25 years.”

Sallie Keller-McNulty, dean of Rice University’s George R. Brown School of Engineering and the E.D. Butcher Professor of Statistics,

expressed concern about the decreasing supply of engineers and scientists in the educational pipeline.

“What I’m fearful of is because we still have such small numbers coming up through the ranks, it’s a much smaller pool to draw from,” Keller-McNulty said. “Yet I think we do have a lot of success in bringing women from that pool into some positions of leadership, and I worry that we’re going to have a middle missing pretty soon.”

In her address, Ride reflected on the events in her life that had led her to become the first American woman to fly in space. Interested in science as a young child, Ride said that science was her favorite subject in elementary school as well as in high school. She praised her parents, who were not scientists, for encouraging her. She also acknowledged “two very influential science

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# THE JOURNEY BEYOND THE SOUND BARRIER

In a November 10 presentation, “Journey Beyond the Sound Barrier,” astronaut Major General Joe Engle discussed his experiences flying during an unprecedented period of advancements in flight research.

He helped flight test the joint NASA-Air Force X-15 rocket-powered hypersonic airplanes at Edwards Air Force Base in California in the 1960s. Three of his 16 flights in the X-15 exceeded an altitude of 50 miles—the height that qualifies a pilot for astronaut rating.

Designed to explore hypersonic flight, the X-15s were part of a decade-long program in the 1960s that first bridged the gap between air and space. Research gleaned by Engle and others made major contributions to the more celebrated

Mercury, Genesis, and Apollo programs and laid the design foundations for the Space Shuttle Enterprise.

“We learned an enormous amount about flying from the atmosphere into space and about flying from space back into the atmosphere with a winged vehicle,” Engle said.

“Operationally it gave us a lot of confidence,” he said of the program, during which 12 pilots participated in 199 flights. Engle later served as the commander of one of two crews that flew the initial Space Shuttle Enterprise approach and landing test flights.

The X-15, which was used to collect data on limits of speed and altitude, was designed to go at a speed of Mach 6 and up to 240,000 feet, Engle said. It exceed-

ed those targets and flew as fast as Mach 6.7 up to 354,000 feet.

George Abbey, senior fellow in space policy at the institute, described the era as “an unprecedented period of advancements in aeronautics—in transonic, supersonic, and hypersonic flight regimes.”

“Now as we look at facing the challenge of advancing space-flight and human exploration, and going back to the Moon and on to Mars, we should look back at the reasons for our great successes during those early years of aeronautical research. They provide lessons that could well apply today.”



## ANNUAL FALL RECEPTION WITH BAKER FELLOWS

The Baker Institute held its annual Roundtable Reception October 25. Many of the institute’s fellows and scholars joined Honorary Chair Secretary James A. Baker, III, and Founding Director Ambassador Edward P. Djerejian in hosting this major event. The Baker Institute’s George Abbey (Space Policy), William Martin (Religion and Public Policy), and Neal Lane (Science and Technology) were three of the institute’s fellows who welcomed Roundtable members and offered informal briefings on the progress of their respective research programs.

# VIOLENCE IS INEVITABLE ON THE ROAD TO DEMOCRACY IN MIDDLE EAST, EXPERT SAYS

The U.S. policy of democracy promotion in the Middle East, while aimed at reorganizing governmental structures, has had the unintended effect of radically destabilizing the region, portending more violence on the road to constitutional change, according to a prominent constitutional expert.

“Are we likely to see in the Middle East, more broadly, the emergence of more constitutional negotiations and more changes in the structures of governments over the next 25 years?,” asked Noah Feldman, professor of law at New York University Law School. “I think the answer is probably ‘Yes,’” he said, adding, “Is that change always going to be peaceful? I would be very much surprised. I think that that change may well involve further violence.”

In an October 28 lecture, “The future of Constitutional Government in the Middle East,” Feldman pointed out that the reorganization of governmental structures is “the very definition of instability,” and cannot always be carried out without violence. He noted that one of the crucial lessons for neighboring countries studying the Iraqi constitutional process—and the role of the Sunni insurgency—is that to be a player in constitutional politics, a party must have many votes behind it, be highly organized for political action at the mass popular level, and have access to violence.

“From that lesson, regional players who are thinking about democratization and constitutionalization

have to be thinking that violence is still going to be part of the picture,” Feldman said.

Feldman delivered his lecture one week after Iraqis voted to ratify a new constitution and at a time when several countries in the region have been experimenting with democratic processes and holding elections—some for the first time—including Lebanon, the Palestinian Authority, Egypt, and Afghanistan.

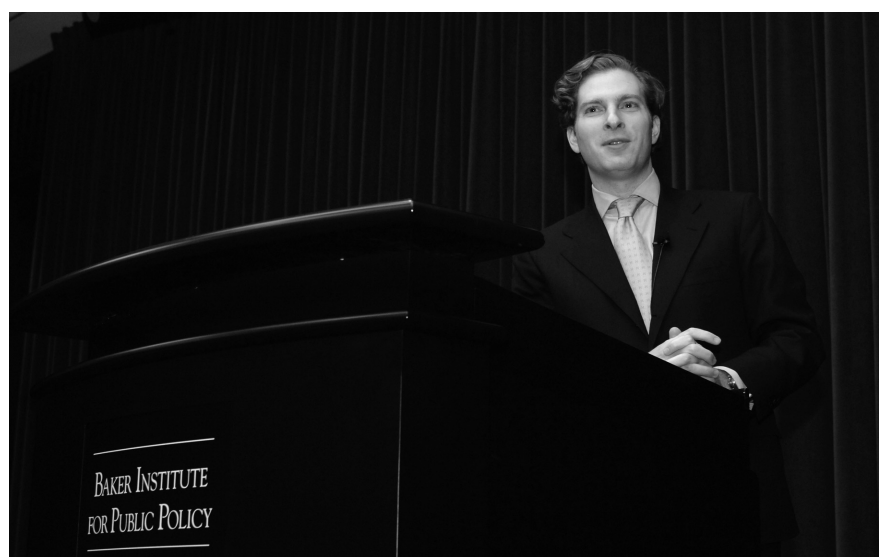
In his lecture, Feldman first discussed the recent vote in Iraq and the degree to which the process was democratic. Second, he discussed the future of the constitution in Iraq. And third, he analyzed the implications of the Iraqi situation for constitutional reform in the Middle East.

Feldman called the recent constitutional referendum a vote of “historic consequence” and noted

that the fact that a political process flowed from a war was undoubtedly significant. But he said the key question on which to focus was whether the vote was a sham or not. The process did include a ballot referendum providing voters with a choice, but the process was flawed and did not produce a legitimate constitution representing all political interests, he said.

One problem was that the text being voted upon had its origins in the transitional administrative law drafted under U.S. occupation. The body that drafted the law was not democratic, and the document was not drafted under a democratic process, Feldman said. While elections were later held to select government officials from the various parties who would hammer out the details of the constitution, the elector-

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*Constitutional expert Noah Feldman predicts more violence in the Middle East as the countries of that region move toward more democratic governments.*



# COMMISSION STRESSES URGENCY OF FEDERAL ELECTION REFORM

The Commission on Federal Election Reform released its final report, “Building Confidence in U.S. elections,” in which it urged government officials to take action to restore voters’ confidence in the political process and reform the system before the 2008 presidential election.

“Americans are losing confidence in the fairness of elections,” said former President Jimmy Carter and James A. Baker, III, the 61st Secretary of State, who co-chaired the commission. “While we do not face a crisis today, we need to address the problems of our electoral system,” they said in an introductory letter to the report.

Carter and Baker met with President George W. Bush in the Oval Office September 19—and later with other political leaders—to present the report, discuss its recommendations, and stress the urgency for change.

In presenting the commission’s findings, Carter and Baker said that current efforts to reform the system—the 2001 report issued by the Carter-Ford Commission and the Help America Vote Act of 2002 (HAVA)—are not enough. While that law was intended to help correct problems that surfaced in the 2000 election and will take years to implement, the 2004 election exposed as many flaws as in 2000, if not more, the report said.

“Had the margin of victory for the presidential contest been narrower, the lengthy dispute that followed the 2000 election could have

been repeated,” the report said.

In 2000 there were issues of inaccurate voter registration lists, obsolete voting machines, poorly designed ballots, and inadequate procedures for interpreting disputed votes. Voters were so discouraged by the serious prob-

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*“If elections are defective, the entire democratic system is at risk.”*

– Jimmy Carter  
and James A. Baker, III

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lems that had surfaced in their electoral system, that on the eve of the November 2004 election, only one-third of the American people said they had confidence that their votes would be counted properly, according to a *New York Times* poll. After the election, only 48 percent of Americans said they were very confident that the votes cast were accurately counted, according to a Pew Research Center Survey.

The issues that surfaced in 2004 included poor service and long lines at some polling stations, reports of improper requests for voter identification and voter intimidation, reported concerns about

partisan purges of voter registration lists, computer malfunctions, and different procedures for counting provisional ballots between states.

In the report, the commission identified “five pillars” of election reform—voter registration, voter identification, voting technology, increased access to voting, and nonpartisan election administration—and made the following key recommendations to strengthen them:

- To address the most serious problem of inaccurate registration lists, the commission recommended that states, not local jurisdictions, organize and update their lists, and that the lists are interoperable between states in order to eliminate duplicates when people move.
- To improve ballot integrity, states should require voters to present the REAL ID card—the new, nationwide driver’s license that Congress has mandated—at the polls. They also should provide nondrivers with a free photo ID card for voting.
- States should make voter registration and IDs accessible to all eligible citizens by using mobile offices and other means to register more voters and issue photo ID cards.
- Congress should pass a law to require voter-verifiable paper audit trails on all electronic voting machines, and the U.S. Election Commission (EAC) needs to take more steps to

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## BAKER INSTITUTE HOSTS SEMINAR ON IMPORTANCE OF RUSSIAN NATURAL GAS

Natural gas is rapidly gaining in geopolitical importance. World gas consumption is projected to more than double over the next three decades, surpassing coal as the world's number two energy source and potentially overtaking oil's share in many large, industrialized economies. Recognizing this trend, the Baker Institute issued a major report on world natural gas in 2005. The report concluded that Russia would be the world's most important gas supplier in the decades ahead, and that Russia's natural gas endowment is both an enormous economic asset for the development of Russia's domestic economy and a geostrategic oppor-

tunity as an export commodity.

Following up on this important study finding, the Baker Institute, in partnership with the Carnegie Endowment for International Peace, organized a high-level seminar in Moscow September 30, 2005, to present the findings of their joint research and to host discussion and dialogue on the future of Russia's gas sector. The seminar, attended by senior Russian government and industry officials, international energy specialists, and U.S. petroleum industry representatives, was sponsored by Baker Botts LLP and Chevron Corporation.

Participants warned that Russia's

gas industry faces important trade-offs if it is to fulfill its promise as an engine for local Russian economic development as well as a major export commodity. Russian natural gas production and consumption have been relatively flat since the early 1990s. Conference speakers noted that it will take billions of dollars in new investment to change this trend. Unresolved debate about reform in the overall sector has delayed the adoption of a major gas strategy that will allow Russia to reach its maximum potential as the major gas supplier, according to conference participants.

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## U.S. QUEST FOR OIL WILL BE MORE DIFFICULT AS GEOPOLITICAL RIVALRIES THREATEN WORLD STABILITY

The world is not running out of oil, but it is running out of the ability to easily or cheaply access that oil, Robert Hormats, vice chairman, Goldman Sachs International said at a special dinner event at the Baker Institute Energy Forum.

In a September 7 lecture, "The New Global Competition for Resources," Hormats discussed the impact of escalating oil demand on world markets and the dangers that developing geopolitical rivalries pose to U.S. interests and to international stability.

As state oil companies from emerging economies such as China

and India race to secure supplies from countries the United States considers controversial, these deals could provoke conflicts. China, for example, has energy deals in Venezuela, Iran, and Sudan, countries with which U.S. relations are strained or nonexistent, Hormats said.

"In one sense, if these Chinese or Indian companies can boost capacity and output, it shouldn't matter to the world market, because additional supplies would be available," Hormats said, adding, "That would be preferable to lower production levels." But he warned, "In

the United States, the politics of such deals could be very sour and negative."

Hormats urged that the United States and China cooperate on energy initiatives to avoid conflict and instead work toward greater stability in global markets and better energy policies in supplier nations. "Cooperating on broader energy issues can produce greater stability in global markets and better energy policies in supplier nations," Hormats said. "The alternative—frequent confrontation—benefits no one."

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# CUBA PANEL DEBATES FUTURE U.S. POLICY

In an October 12 panel discussion on “Cuba and the United States in the 21st Century,” participants examined the state of current U.S. policy toward Cuba and debated the effectiveness and rationale of the four-decades-old economic embargo.

While the panelists agreed that the fundamental goal of U.S. policy toward Cuba should be to promote democracy and human rights, they sharply disagreed on the effectiveness of current policy and how to achieve this.

Since the fall of the Soviet Union and the dissolution of the embargo’s national security rationale, U.S. policies toward Cuba have exposed a lack of coherence in U.S. foreign policy and tensions among various stakeholders regarding U.S.-Cuban relations.

“The current administration hasn’t let human rights abuses in countries like China and Venezuela get in the way of U.S. economic interests,” noted Erika de la Garza, program coordinator, the Americas Project, at the institute. “Why is Cuba the exception? Perhaps because of the half million politically active Cubans who live in Florida.”

Daniel Griswold, director of the Center for Trade Policy Studies at the Cato Institute, argued that expanded trade would be more effective than the embargo banning trade, investment in, or travel to Cuba—a policy he called an “utter failure.”

Griswold said the embargo has enhanced Castro’s standing and provided him an excuse for the failure



*America Project coordinator Erika de la Garza introduces the discussion on future U.S. policy options toward Cuba and how they highlight the growing tensions between various Cuban communities.*

of his socialist regime at the expense of both economic and political independence for Cubans, and losses to the Cuban economy and U.S. companies.

In 2000 Congress approved a modest opening in the embargo, generating \$380 million in U.S. farm exports to Cuba in 2004, from nothing in 2000, reflecting the potential of a commercial relationship, Griswold said.

He recommended eliminating the travel ban, permitting farmers and medical suppliers to trade with Cuba using private credit; and repealing the Helms-Burton Act restricting U.S. allies from trading with Cuba.

Caleb McCarry, Cuba transition coordinator at the U.S. Department of State, said the “time is not now to engage the Cuban government,” when the dictatorship under Fidel Castro is not prepared to engage with the democratic world and is seeking further control over the

economy and economic liberties. Rather, the United States would support a genuine transitional regime defined by Cubans around the world.

“There’s a lot of talk, but I think there’s not much action,” said Delvis Fernández, president of the Cuban American Alliance Education Fund, who said the embargo hurts the Cuban people for humanitarian reasons by restricting travel and humanitarian aid.

Ernesto Betancourt, first director of Radio Martí and former treasurer of the association for the study of the Cuban economy, said the embargo should be lifted in a way that would help Cubans achieve political and economic freedom from a regime that prohibits private business, profits from tourism, and has let basic services fall into decline.

“What we cannot do is give a political victory to Castro,” he said.

# DC INTERNS PRESENT RESEARCH FROM JESSE JONES SUMMER PROGRAM

The six undergraduates who participated in the Jesse Jones Leadership Center Summer in DC Policy Research Internship Program last summer presented the results of their individual research projects at an August 28 workshop attended by Baker Institute scholars and Rice University faculty. They met with Director Edward P. Djerejian to discuss their projects September 19.

The institute program is sponsored by an endowed gift from the Houston Endowment and other various donors. Designed to help undergraduates who desire internships in Washington, D.C., develop careers in public policy, it is open to nongraduating Rice undergraduates of all majors and policy research orientations. Applications for the summer internship program are due at the end of each January.

“We’re hoping that participants can use these experiences to obtain even more extensive and prestigious research-oriented fellow-

ships, scholarships, and internships later in their studies at Rice or on their way to graduate school,” said Steven Lewis, who coordinates the program at the institute.

David Brown, a junior majoring in history, worked at the State Department’s Bureau of Population Refugees and Migration in the resettlement office. His project analyzed data on the employment status of refugees at 90 and 180 days after resettlement to evaluate how various refugee groups are doing and the success of nongovernmental agencies hired to help the refugees. He used a unique dataset he obtained while at the State Department.

Hrishi Hari, a sophomore majoring in social sciences, worked for Congressman Jim Gibbons (R-Nev.), researching foreign relations and social policy. He prepared a statistical, quantitative analysis of the comparative influence of domestic political and socio-economic

factors driving economic growth in developing countries.

Jason Lee, a senior majoring in policy studies and biological engineering, assisted in research on China’s evolving security and energy security relations while at the Center for Strategic and International Studies. His project focused on China’s policies toward and relations with the Middle East.

Jordana Mosten, a senior majoring in history, worked at the American Civil Liberties Union’s (ACLU) Legislative Office, researching reforms of the Patriot Act and writing a grant proposal to increase national attention to racial profiling legislation. Her project examined whether the ACLU’s legislative strategy of building coalitions with conservative organizations was successful.

James Prohaska, a senior majoring in history, analyzed the effectiveness and evolution of U.S. foreign policy toward the Central Asian states while at the Center for Eurasian and Russian Studies at Georgetown. His project examined the evolution of U.S. foreign policy toward Central Asia, particularly Uzbekistan, and whether or not a new “Great Game” is developing in the region.

Joe Vavra, a senior majoring in economics, interned at the Council of Economic Advisers. His research focused on the costs and benefits of various alternatives to the current U.S. unemployment insurance system.



*From left, James Prohaska, Jason Lee, Allen Matusow, Jordana Mosten, Ambassador Edward P. Djerejian, Joe Vavra, David Brown, and DC Intern program coordinator Steven Lewis (not pictured: Hrishikesh Hari).*

# STUDENT FORUM CONVENES SYMPOSIUM ON AIDS IN THE AFRICAN AMERICAN COMMUNITY

There is a conspiracy of silence surrounding AIDS in the African American community, according to Stanley Lewis, medical director of the St. Hope Foundation, a Houston-based nonprofit dedicated to minority health. Lewis and 22 other panelists and moderators participated in an October 29 symposium organized by the Baker Institute Student Forum. The event, "AIDS Off the Radar: The Black American Epidemic," was convened to discuss the disproportionate impact of AIDS on the African American community in Houston. In opening remarks, Student Forum member Mark Gabriel Little argued that ignorance of the problem on the part of policymakers and indifference to the problem on the part of the black community were central reasons for organizing the conference. Participants in the first of three panels discussed the pathology, prevention, management, and cost of HIV/AIDS. Both Sharonda Wright, health director of the NAACP Houston branch, and Lewis focused on the importance of changing behavior when trying to decrease HIV infection rates. A contrasting perspective shared by many nonprofit organizations was that there are not enough funds to accomplish this goal.

Members of the second panel uncovered the reasons why AIDS is a particular problem in the black community. Judith Lahai-Momoh, executive director of

Saving Lives Through Alternative Options, a local nonprofit, identified engrained cultural ambivalence toward health and sexuality as primary reasons for the black epidemic. In contrast, Bronwen Lichtenstein, assistant professor in the criminal justice department at the University of Alabama at Birmingham, argued that high rates of poverty and incarceration are the primary drivers for high AIDS infection rates among blacks.

The final panel discussed the current political and religious approaches to the problem as well as viable future solutions. Rev. William Lawson, founding pastor of the Wheeler Avenue Baptist Church in Houston, argued that the "mission of the church is to expose the truth," and in that capacity, the church should be part of the solution to the black AIDS crisis. Marlene McNeese Ward, a bureau chief in Houston's Department of Health and Human Services lamented that "legislative mandates ... prevent us from doing things that work" such as condom distribution programs.

The conference represented the Student Forum's new efforts to not only bridge the gap between public policy and academe, but also between Rice University and the Houston community.

## BISF NEWS

Through informal discussions, forums, lunches, and panels, the Baker Institute Student Forum (BISF) provided a variety of opportunities in the fall semester for Rice students to interact with policymakers, journalists, fellows, and scholars. In addition to the AIDS symposium, BISF hosted or co-hosted events featuring speakers including former NASA astronaut Sally Ride. The forum also organized discussions with David Leebron, president of Rice, on Chief Justice John Roberts' nomination as well with Yair Hirschfeld, the institute's Rabin fellow, on the Arab-Israeli peace process.

Notably, in November, Noorain Khan, chair of the student forum, received a Rhodes Scholarship. Khan, a senior majoring in political science, women and gender studies, and religious studies, will enter Oxford next October to pursue a master's of philosophy degree in migration studies in the university's Department of Social and Cultural Anthropology. In addition to her work at the institute as chair of BISF, she was a Jesse Jones Leadership Center 2004 Summer in DC Policy Research intern and an intern for the Energy Forum.

# SUICIDE ATTACKS: MARTYRDOM OPERATIONS IN THE CONTEMPORARY MUSLIM WORLD

In an October 19 lecture, “Suicide Attacks: Martyrdom Operations in the Contemporary Muslim World,” David Cook, assistant professor of religious studies at Rice University, discussed the jihadi aspect of suicide attacks.

In introducing Cook, Director Edward P. Djerejian noted that this phenomenon has taken on significant importance, particularly in the context of the relationship between the West and Islam, and especially during this period of ideological struggle within the Islamic world between the forces of extremism and moderation.

Cook is working with the institute on the issue of Islamic extremism, specifically on the topic of suicide bombing and suicide bombers. This work is part of the larger ongoing program at the institute focused on U.S. policy toward the Muslim world.

In his lecture, Cook referenced current literature on the subject, explaining one argument that suicide attacks have a “strategic logic,” under which marginalized, radical

groups create an atmosphere of terror to extract political or social concessions from their enemy. Their targets are typically associated with the West—hotels or embassies, for example. Cook said the reasoning behind attacks specific to radical Islamic groups includes separating the believers from the unbelievers and defending honor by fighting injustice and creating martyrs.

Cook pointed out, however, that within the Muslim community, there is much disagreement about suicide attacks and martyrdom operations, which is not reflected well by media analyses. In the question and answer period, one attendee asked how practicing Muslims could abide this phenomenon in the context of their religious beliefs.

Cook explained that the ideological position from which these groups base their actions is one that is rather marginal from a religious point of view to Islam overall. Those who subscribe to radical ideologies represent about only 5

percent of the Muslim population, and in certain areas it could be 10 percent, he said.

Critiques of these operations within the greater Muslim community argue that suicide attacks sully the image of Islam; violate the Koran, which forbids suicide; kill other Muslims; and violate the basic rules of jihad by seeking fame for one’s actions, thereby destroying the intended spiritual aspect of this God-sanctioned warfare.

Cook said there is a growing movement in the Arabic world to move away from martyrdom operations.

“Gradually we’re seeing some intellectuals that are willing to contest the validity of suicide attacks now that the Israeli-Palestinian conflict has moved more to a negotiating sphere,” Cook said. The issue of Iraq, however, continues to fuel fatwa’s and counterfatwas concerning their legality, he added.

## ETHICS, POLITICS, AND SOCIETY CO-HOSTS SCRUTON

Roger Scruton, the notable conservative philosopher, delivered an October 13 lecture, “Sexual Morality for Heathens,” as part of the Rice University Lecture Series on Ethics, Politics, & Society. In his lecture he discussed philosophical ideas about sex from which moral-

ity may or may not be constructed.

Scruton was a professor of aesthetics at Birkbeck College, London. In his native Britain, he has been an influential political activist and prolific journalist.

The lecture series is co-sponsored by the Department

of Humanities and the Baker Institute. Its aim is to provide a forum where first-rate scholars may seriously and carefully discuss important and often controversial moral, political, and social issues.

# AVIAN FLU

*continued from page 1*

frequent reference to the last great pandemic, when Spanish flu swept the world, killing 40 million people, including more than half a million in the United States. “But this has to be put in perspective,” he cautioned. “1918 was the last year of World War I and trench warfare, when medical care, facilities, and global communication were far from what they are today. So we need to avoid hysteria.”

Using the definition of a pandemic as a worldwide epidemic with varying degrees of illness and mortality, the panelists provided their insights on the nature and magnitude of the threats facing the country and the world today and on the immediate and long-term options available to respond.

Casscells said there was a fifty-fifty chance of a pandemic occurring in the next five years due to a confluence of conditions including: the evidence of a disease on the move, with an increasing number of cases being reported in Asia and Eastern Europe; the increased numbers and mixtures of poultry infected in South Asia; the risk for contagion due to unprecedented air travel; and the resistance of the virus to treatment. The virus was first discovered in China in 1996, and the current outbreak started in 2003.

While the spread of the H5N1 virus from person to person has been rare, scientists are concerned that this could change given the tendencies for influenza viruses to mutate. A large concern is the method by which a pandemic influenza might spread and how to control it. Spreading is by respiratory droplets



*From left, Eric Noji, Scott Lillibridge, and S. Ward Casscells advocated a dual approach of public education and coordination of federal and local emergency services to counter the virus until a vaccine is developed.*

caused by coughing or sneezing or by touching infected surfaces. Since adults are infectious beginning one day before symptoms develop and up to five days after the onset of illness, controlling the contagion is a particular challenge. For example, isolation of infected groups may be more feasible than quarantine policies.

According to projections provided by Scott Lillibridge, director of the Center for Biosecurity and Public Health Preparedness at UTHSC-H, a medium-level pandemic in the United States without vaccinations or drugs could cause significant mayhem including: 89,000 to 207,000 deaths; 314,000 to 734,000 hospitalizations; 18 million to 42 million outpatient visits, and an additional 20 million to 47 million sick. An estimated 10 to 40 percent of the workforce could be lost by such a pandemic, and the estimated economic impact could range between \$71.3 million and \$166.5 billion.

“If we’re lucky and the pandemic really strikes in four or five years, we’ll be prepared because the government is aware,” Casscells said. “If it strikes in the next two years, we’ll

have to rely [mostly] on 19th century medicine.”

Toward the goal of creating a “culture of preparedness,” the government should make clear who is in charge at federal and local levels, panelists said. Public health officials need to work closely with law enforcement personnel to set priorities and realistic expectations, and there needs to be close private and public sector coordination.

In addition, a public education and media communications campaign should be started immediately. Lessons learned in the wake of the 9/11 attacks and the anthrax crises include the need for better public communication and education, said Erik Noji, senior policy advisor to the director of the Centers for Disease Control in Washington, D.C.

To help people understand how to avoid infection, Casscells proposed the analogy of the personal doctor in the 19th century. He prescribed a combination of advice including: frequent hand washing and sneezing into one’s sleeve; having a supply of masks, access to

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## SAUDI MINISTER

*continued from page 1*

also prevented Iraq from taking over Kuwait in 1991. Yet currently, he said, U.S. forces, along with British military, have allowed Iran to bring in people, money, and weapons, interfering with political life in the southern part of the country under their control. “Now, it seems that Iran is being handed ... Iraq on a golden platter,” he said.

He warned of the danger of sectarian strife dividing the Arabs of Iraq, the Sunnis and the Shia, on top of creating a separate entity for the Kurds in northern Iraq. While the special position of the Kurds is not new, he called for efforts to bring the Arabs together rather than to divide them. If the Arabs are allowed to split into separate entities, he said, Iraq risks disintegrating into three parts, drawing neighboring countries to support those individual groups and potentially leading to regional wars.

Also covered in the question period were developments in the Middle East peace negotiations between Israel and the Palestinian Authority. Prince Saud praised Israeli Prime Minister Ariel Sharon for withdrawing from Gaza, but added that it would be a meaningless gesture if it were not followed by other steps as outlined in the Roadmap for Peace and the peace proposal put forth by King Abdullah bin Abdulaziz and endorsed by the Arab League.

In his lecture, Prince Saud focused on the risks posed by

sharply escalating oil prices—which, in September, had doubled to more than \$65 per barrel since 2002. He called on the United States, the world’s largest oil consumer, and Saudi Arabia, the largest producer, to work together to assess the situation so that it does not further depress the global economy and create social and political instability.

Prince Saud stressed “Saudi Arabia’s proven record of meeting

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*“With our entry into the WTO, of course, we will follow the rules of the WTO, so investors in Saudi Arabia will be able to own the refinery completely....”*

– Prince Saud

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its oil production commitments irrespective of international crises and political turmoil or even wars,” and noted that the kingdom remains a reliable supplier regardless of the circumstances. “Yes we have kept our commitment even when wars were being fought in our region, when oil tankers were being set ablaze in the Gulf, and when our cities and oil facilities were being attacked by scud missiles,” he said. Prince Saud

added that Saudi Arabia would be enhancing this role by investing in substantial new refining capacity for the United States and the world market.

In his lecture at the Baker Institute, Prince Saud announced that Saudi Arabia plans to build two new refineries in Saudi Arabia, adding 800,000 barrels per day of refining capacity, and he added that the kingdom is also willing to build refineries and invest in new refinery capacity in the United States. He called on U.S. companies to partner with Saudi Arabia in the United States or in the kingdom in refining, noting that now that Saudi Arabia is joining the World Trade Organization (WTO), investors could take 100 percent of refinery ownership in a new export facility in Saudi Arabia.

“Today I heard that we are opening or are in the process of establishing two refineries with a capacity of 800,000 barrels per day in Saudi Arabia,” Prince Saud said in his speech. “With our entry into the WTO, of course, we will follow the rules of the WTO, so investors in Saudi Arabia will be able to own the refinery completely, and own land, and so forth,” he noted during a response to questions following his address.

This new Saudi commitment represents an important political statement: Saudi Arabia, as a key U.S. ally, is essentially offering a long-term solution to the energy crisis by directly addressing what it considers to be the major problem in the oil market—the critical shortage in world refining capacity.

“We are willing to invest in



downstream operations in [this] country as well as building refineries in Saudi Arabia,” he said in response to a question. “As a matter of fact this is a necessity.” Through its Motiva Enterprise joint venture with Shell, Saudi Arabia already has a significant presence in U.S. refining, distribution, and marketing. Prince Saud added that some private Saudi companies have the resources, manpower, and financial strength to partner in projects with either the Saudi government or foreign governments.

While disagreeing that markets are suffering from a shortage of crude oil, Prince Saud noted that, for the first time in decades, there is no sizable excess crude oil production capacity. To address this situation, Saudi Arabia has committed to increase its oil production capacity—by 2.4 billion barrels per day by 2009. But Prince Saud stated that the energy price and supply issues causing concern in the United States are not related to oil production volumes, but rather to gasoline formulations, limited refinery capacity, lack of storage capacity, and various other restrictions that have paralyzed the energy industry in the Western Hemisphere.

Citing U.S. Energy Information Administration figures, Prince Saud noted that global refining capacity has only increased by 1.3 million barrels per day during the last five years. Meanwhile, oil demand has increased by more than 7 million barrels per day. Today, he said, global refinery capacities stand at 82.7 million barrels per day, more than one million barrels a day

short of global demand.

For Saudi and other new refining investments to be successful, Prince Saud said that Saudi Arabia and the United States must work together not only by investing in new opportunities to alleviate the refined products bottlenecks, but in particular, by properly addressing the issue of standardizing fuel specifications.

“Facing these challenges [requires] a joint effort by oil producers, oil consumers, and the oil companies,” he said. “The imposition of boutique fuel specifications on a state-by-state and country-by-country basis only confounds efforts to formulate global solutions for overall fuel shortages,” he said.

Indeed, there are an estimated 55 grades of gasoline used at various times of the year in the U.S. market alone.

Prince Saud said that as oil supplies from the North Sea, Alaska, and the continental United States lag behind demand, heavier crudes with higher, more polluting sulphur content will be increasingly the only supplies available to meet increased demand. He said that environmental technologies were available to address this challenge, but he warned that fuel specifications must be standardized to modify refinery processes on a timely basis. “This is something we must resolve urgently if we are to ensure fuel specifications and optimum refinery efficiencies over the next decade.”

To face these challenges jointly and institutionalize fruitful dialogue amongst oil producers, oil

consumers, and the oil companies, King Abdullah bin Abdulaziz has established a Secretariat for the International Energy Forum in Riyadh, Prince Saud noted. A primary function has been to facilitate data exchange and transparency through the administration of the Joint Data Initiative. This involves monthly submissions from producing and consuming countries. King Abdullah also called for convening a conference under the auspices of this International Forum.

At the end of his lecture, Prince Saud stressed the need for stability in the Middle East, noting the region is the source of more than 65 percent of the world’s oil reserves and 45 percent of its gas reserves, and he emphasized the urgency of ending the Arab-Israeli conflict. Such a resolution would not only end decades of human suffering, but curtail market speculation that has been damaging to the oil markets.

Prince Saud reiterated the importance of measures that have been outlined in the Roadmap for Peace and the peace proposal put forth by King Abdullah bin Abdulaziz.

“It is time for the Israelis to put their cards on the table,” Prince Saud said in response to a question, noting that King Abdullah has called on the people of Israel to make their voices heard. “We have to live with the Israelis, and we are ready. And I hope that the Israeli government is ready to move as quickly as we are willing to move.”

# PEACE

*continued from page 5*

While fully acknowledging the enormous challenges ahead, Hirschfeld suggested 2006 would be a year of opportunity. In order to make substantial progress, however, Israeli Prime Minister Sharon and Palestinian Authority President Mahmoud Abbas will need to continue to summon substantial political will. In addition, the Bush administration must maintain its commitment to both oversee the process, perhaps creating a structure that will permit negotiations to be led by both sides bilaterally, and forge an international support coalition.

“What’s happened on the Roadmap is that there has been quite a lot of headway,” Hirschfeld said. This headway has been due largely to the Israeli government’s disengagement plan in Gaza and the Northern West Bank. “There’s a lot of convergence of common interests in the short term,” he added, noting four areas: Israel’s understanding that it needs to get out of most of the settlements east of the security fence and in the West Bank; both parties’ interest in maintaining security and law and order; the Palestinians’ desire for economic development; and the mutual recognition of the need for an orderly border regime to achieve these goals. “We have a structure actually to put it ahead,” Hirschfeld said, referring to the U.S.-led efforts by General William Ward and former World Bank president James Wolfensohn to coordinate these issues.

In a note of caution, Hirschfeld also drew attention to the many dangers and pitfalls lying immediately ahead. The inbuilt, vicious circle of violence that all too easily may be unleashed by extremists, internal fragmentation within the Palestinian leadership, and the nonenforcement of law and order in the Palestinian territories may cause further destabilization.

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*“From an Israeli point of view, the understanding then was and the understanding today is that the strategy of two states is the only way that Israel can maintain its raison d’être...”*

– Yair Hirschfeld

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This is why the Baker Institute-led effort to recommend a “Trilateral Action Plan for Roadmap Phase I Implementation,” to be employed and sustained by the Palestinian Authority, by the government of Israel, and by the international community led by the United States, is of such great importance. This policy paper was published and distributed in December (please see related article, page 4).

Hirschfeld and the ECF and

Palestinian participants have been working closely over the past two years with Baker Institute director Edward P. Djerejian to create an implementation process for the Bush administration’s 2003 proposed Roadmap for Peace. The “Trilateral Action Plan” policy paper is based on recommendations made by the Israeli-Palestinian Working Group, which they convened, and follows an initial policy paper that the institute published, “Creating A Roadmap Implementation Process Under United States Leadership,” in February 2005. The institute is continuing to work with the parties, and Djerejian chaired post-disengagement working sessions in the region in August and November. A Baker Institute study of the process of Final Status Negotiations between Israel and Palestine is scheduled to be published in 2006.

“Our goal is to encourage the parties to demonstrate the necessary political will to move the process forward in 2006,” Ambassador Djerejian said following Hirschfeld’s lecture. “The United States should play the key role in consolidating international support for this effort.”

In concluding his remarks, Hirschfeld outlined five potential scenarios in the future of Israeli-Palestinian negotiations: a return to violence; further Israeli unilateral action; “coordinated unilateralism”; Israeli-Palestinian agreement on phase two of the Roadmap; and agreement on Permanent Status.

“I believe we can move ahead on the most optimistic one and see how we create a framework for Permanent Status,” he concluded.

## ROADMAP

*continued from page 4*

overcoming stumbling blocks in reaching agreements on practical matters, can substantially contribute to PA legitimacy;

- The GOI's pledge of June 2004 to return to bilateral negotiations once the PA will have carried out its phase one obligations is an important indication of Israel's willingness to renew these negotiations (This pledge, the Revised

Disengagement Plan passed by the Israeli Cabinet June 6, 2004, states that once "the Palestinians ... implement in practice their obligations to combat terrorism and effect reforms as required by the Roadmap, [this will] enable the parties to return to the path of negotiation.");

- Once both sides have returned to the negotiating table within the framework of the Roadmap, Israel's interest in defining its final borders, and the

Palestinian interest in reaching a Permanent Status Agreement, will coincide to facilitate progress in the peace process.

Accordingly, this Baker Report provides recommendations for trilateral action during this election period in order to sustain momentum, strengthen international mechanisms for Roadmap implementation, and prepare the groundwork for the resumption of bilateral negotiations for phase two and phase three of the Roadmap.

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## VIOLENCE

*continued from page 8*

ate from the Sunni party, Saadam Hussein's party, did not vote. At the time, it lacked a political voice and politicians felt excluded from the process.

The result was that the constitution that was later voted upon was heavily based on the document drafted under the administrative law. It was also the product of negotiations between the Kurdish and Shia politicians, which excluded the Sunnis. In the October referendum, the Sunnis came extremely close to sinking the constitution, a fact the media did not adequately cover, Feldman said.

Feldman predicted that in upcoming elections to be held in December, the Sunnis would elect leaders who would press for amendments. But to enact changes, he said, they would need to win concessions from their rival parties. To do so, the Sunnis likely would use the threat of violence from the

more violent jihadist wing of their party as a negotiating tool, Feldman said. Similar to the role Hamas has served the Palestinians in Middle East negotiations, violence from this wing could be curbed or encouraged depending on the Sunnis' view of their position.

In Iraq, violence is of particular significance, Feldman said, because Sunnis see it as "the only way" to negotiate against the United States as the virtual occupier of Iraq and against the Shia and the Kurds, whom it views as proxies for the United States.

Feldman pointed out that there is a common tendency to believe that laws are a way of getting things done without violence. This is true in successful constitutional regimes where the government structure is the result of the elite political players forging a pact or law that they have decided it is in their interests to respect, Feldman said. However, he noted, many constitutional experts lose sight of the fact that constitutional politics are not dissimilar from other kinds of politics,

and that all political processes are susceptible to being affected and manipulated by violence. The implication for the region, he said, is that there will be change, but it will involve violence. In Lebanon, he posited, it means that he constitutional negotiations would take place in the shadow of violence.

In closing, Feldman said the implications for U.S. policy are sobering.

"Once we've undertaken this step in the direction of the radical destabilization of the region—which is a fait accompli; we've already done it—I don't think it's reasonable to put the genie back into the bottle," he said. "We are likely to see some degree of violence in that process of transformation and that's reason for caution, and it's reason to think that the consequences of ... U.S. actions in foreign policy can be very far-reaching indeed in the world and that they therefore, not just in the past but going forward, need to be exercised with a real abundance of caution."

# RIDE

*continued from page 6*

teachers” from high school for helping her build self-confidence. “They said things like, ‘If you’re good in math in sixth grade, you’ll be good in math in 11th grade, and you’ll be good in math in college. If you were good in biology in eighth grade, you’ll be good in biology in 12th grade, and you’ll be good in biology in college.’”

She said a lot of girls need to hear such supportive messages because many start to lose self-confidence as they go through middle school and high school and are not sure they will still do well in science and math in college. “It was that kind of push that I got out of high school that encouraged me to go ahead and declare a physics major when I walked in the door in college.”

Ride majored in physics in both undergraduate and graduate school at Stanford University. She still has vivid memories of the morning she opened the student newspaper while working on her PhD and saw an ad soliciting applications for astronauts, noting that it was a “big deal” because it was the first time NASA announced plans to bring women into the astronaut corps. “The minute I saw that ad, I knew that’s what I wanted to do,” she said.

From more than 8,000 applicants, NASA selected Ride and 34 others in 1978 to be the first group of astronauts chosen specifically for the Space Shuttle program. The group included 15 astronauts with test pilot backgrounds and 20 with science and engineering backgrounds, which is still representa-

tive of the ratio that NASA seeks in today’s astronaut corps, Ride said. That group of 35 included the first six women astronauts. Today the astronaut corps is 20 percent female, a ratio the industry is working to increase, Ride said.

She thanked George Abbey, the Baker Botts senior fellow in Space

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*“Historians recorded my journey that day as a milestone for women in science and the space program. For me, it was the fulfillment of dreams that began when I was a girl.”*

– Sally Ride

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Policy at the Baker Institute, for choosing her to be an astronaut when he was director of flight operations at the NASA Johnson Space Center.

Ride recalled her first spaceflight on the STS7—the seventh flight of the *Space Shuttle*—describing the launch from zero to 17,500 miles per hour as “an exhilarating, mind-numbing, bone-rattling 8 ½ minutes.”

In her post-astronaut career, Ride became a professor of physics at the University of California–San Diego, where she directed the

California Space Institute. In 2001 she founded her own company, Imaginary Lines Inc., to pursue her passion of motivating girls and young women to pursue careers in science, math, and technology.

She cited surveys of fourth-graders that indicate about two-thirds of children—both boys and girls—like science. “Starting in middle school, we start to lose both boys and girls, but we lose girls in far greater numbers than boys,” she said. “The reasons are primarily societal. There are still some lingering stereotypes out there of what an electrical engineer looks like.”

In 1970 only five percent of law school students, eight percent of medical school students, and four percent of business school students were women; today 50 percent of law and medical school students are women, and 45 percent of MBAs go to women, Ride said. Women in the physical sciences and engineering have not made as much progress, she noted, because fewer of them exist. In 1970, less than one percent of engineers in the United States were women.

“But that doesn’t mean that in 20 years there aren’t going to be as many women in those disciplines as there are today in law, biology, and medicine,” Ride said. “It just takes time.”

The program was hosted by the Baker Institute Science and Technology Program, the Baker Institute Energy Forum, the Baker Institute Space Policy Program, the Baker Institute Student Forum, Rice’s Center for Biological and Environmental Nanotechnology, and Rice’s Center for Nanoscale Science and Technology.

# RUSSIA

*continued from page 10*

U.S. ambassador to the Russian Federation, William Burns, opened the seminar, noting that for Russia to deepen its supply relationship with Europe, while at the same time tapping new opportunities in Asia and North America, will “require heavy investment in field development and transportation infrastructure, the application of the resources and know-how and technological capacity of leading multinational companies, and clear and predictable rules of the road to attract and sustain both foreign and domestic investors.” Burns added that the role of natural gas will only grow in importance in U.S.-Russian relations in the years ahead, and that the increasing significance of natural gas to the global economy intersects at an “important moment” as Russia hosts the G-8 summit in June.

Baker Institute director Edward P. Djerejian echoed Burns’ emphasis, arguing that Russia will have to “strike a balance between its interest in developing a robust domestic industry and its desire to partner with foreign companies whose long experience in LNG can enhance market access and optimize commercialization.” Added Djerejian, “Given the challenges ahead, I believe that all actors—the Russian government, Gazprom, independent suppliers, and foreign companies—can and must play their part in developing Russia’s vast natural potential. The task is simply too large to tackle without the broadest possible participation.”

Drawing on the conclusions of the recent Baker Institute study “The Energy Dimension in Russian Global Strategy,” the seminar focused on Russia’s central role in the international gas markets and the impact its policy choices will have on the development of international gas markets. The study concluded that Russia’s export strategy will be a critical influence on gas prices not only in Europe, but on world LNG markets as well. Development of eastern export routes will be a major factor determining the price of LNG to major Asian energy importers such as Japan, China, and South Korea, according to a presentation of the study made by Amy Myers Jaffe, Wallace S. Wilson Fellow in Energy Studies.

Russia’s gas sector remains one of the least-reformed major sectors of the Russian economy despite its importance. Jessica Matthews, president of the Carnegie Endowment, noted that unless reforms are handled properly both inside and outside the energy sector, “state domination could prove to be a severe brake on development.” Matthews said that a top priority for Russia should be improving the conditions “where private investment can effectively complement the state decisions and where state decisions do not handicap private investment.”

Gazprom could be a driver for the important expansion of gas resources for economic development, but as its management recognizes, this will require restructuring and reform in many aspects of its operations. Gas production has

been relatively flat in Russia in recent years, and many observers believe that without private capital, new exploration and transportation construction activities will fall short of requirements for both domestic and regional markets. Some analysts predicted that Russian gas production could actually decline in coming years. Noted Stephen O’Sullivan, a Moscow-based oil and gas analyst with United Financial Group, “Major projects take a long time. They should have been debated, discussed, and commissioned in terms of the front-end work by now. Zapolyarnoye, which is going on stream now, was perhaps discussed and commissioned a decade ago. We are very late in delivering new projects into the Russian market.”

# COMMISSION

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ensure that those machines are secure and accessible for people with disabilities.

- The EAC and state election management institutions should be strengthened and reconstituted on a nonpartisan basis.
- The presidential primary schedule should be reorganized into four regional primaries.

The 21-member commission, which was both bipartisan and nonpartisan, was organized by American University’s Center for Democracy and Election Management and co-sponsored by the Baker Institute. Hearings were held in Washington and Houston.

The full report is available on the institute’s website, <http://bakerinstitute.org>.

## ENERGY

*continued from page 3*

Consolidated Edison to consider new innovative technologies. One such technology is smart metering, by which home energy monitoring systems would allow customers to monitor their realtime usage and its realtime cost to improve efficiency in the consumption and supply of electricity.

Other energy industry experts focused on the broad application of new grid technologies on more upstream energy supply issues—from energy exploration to improved and more efficient transmission. Walter Chapman, director of EESI, emphasized the importance of supplying necessary energy for economic growth while minimizing the environmental impacts of consumption through the use of emergent technologies like fuel cells, solar power, and biofuels.

## RIVALRIES

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The lecture was part of the Baker Institute Energy Forum's Distinguished Leadership Lecture Series on the topic of its two-year research program, "The Role of the National Oil Company in International Energy Markets." The lecture was generously hosted by the Goldman Sachs Natural Resources Investment Banking Group to formally launch its sponsorship of and commitment to the Energy Forum.

Speaking in-depth about national oil companies and their role in

The obvious challenges to the current grid system and the myriad of potential solutions were discussed by several highly respected energy policy experts. Pat Wood, former chairman of the Federal Energy Regulatory Commission (FERC), was the conference's keynote speaker and addressed the impacts of a new regulatory environment on the energy infrastructure and on energy pricing. Wood emphasized the necessary coupling of technology and regulation and pointed out the success of deregulation in Texas as an innovation catalyst. Central to his discussion were the underlying motivations for state and federal policymakers to encourage the application of innovative technologies in electrical distribution.

Another focus of this discussion was the benefit of these technologies to the consumer, as well as the how the combinations of new technology and deregulation might unleash price benefits to

oil production, Hormats called the topic "central to the future of the world oil market." Hormats said the importance of national oil companies arises because a large portion of oil resources today are effectively off limits to private investment due to either outright prohibitions, major restrictions on investments placed by host governments, or a hostile regulatory and tax environment for foreigners. This is true in oil-rich areas of the Middle East, Russia, Mexico, and Venezuela, for example, he said.

"So in such countries additional output depends on a change in the political or regulatory environ-

individual and commercial consumers. For example, Frank Wolak, an economist at Stanford University, explained how technology might allow consumers to absorb both the price risks and benefits of deregulation.

The conference also covered innovative visions for a new electricity system that could improve environmental quality and reduce the emission of greenhouse gases. It dealt with how nanoscience and other emerging technologies might contribute to these revolutionary changes. Several scientists presented various methods for improving grid storage, as well as potential improvements in storage technology to manage power shortages and peak energy demand in the existing grid system. Among the technologies discussed were pumped hydropower, compressed air energy storage (CAES), batteries, flywheels, superconducting magnetic energy storage (SMES), and ultracapacitors.

ment to allow significant increases in investments by state-owned oil companies—or to allow foreign oil companies to have greater access to their fields."

Hormats warned that it remains in question whether national oil companies will be able to invest or attract investment for the large-scale "next generation infrastructure projects" that are required over the next decade to meet rising energy demand. Thus, he said important consuming countries like China, Japan, and the United States need to work together to address potential investment and regulatory issues.

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## AVIAN FLU

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antiviral drugs, and taking the regular flu shots; and understanding the importance of isolating the sick.

Leaders have a major role to play in communications. They need to bring news organizations into the planning process early so that the media can make informed reports and understand how they can help. They also need to plan for a continuous news cycle with responsible broadcasters on hand to disseminate accurate information.

In exploring “the realm of the

possible,” panelists stressed the need for leaders to assess the potential threat and vulnerability of the community. For example, they need to identify in a comprehensive manner who are the first responders, what preventive treatment they should be given, and how to engage in cross-training between public safety, public health, hospitals, and emergency management agencies to ensure all sectors continue to function. They also need to identify personnel in charge of local and national strategic assets such as energy supplies and telecommunications to keep basic services going.

## ROADMAP

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A separate Baker Institute study will be prepared in the spring of this year on this issue by the institute’s Rabin fellow, Yair Hirschfeld.

The complete texts of both published policy papers, “Trilateral Action Plan for Roadmap Phase I Implementation” and “Creating A Roadmap Implementation Process Under United States Leadership,” are posted on the institute’s website, <http://bakerinstitute.org>.

# NEW PUBLICATIONS

**“Trilateral Action Plan for Roadmap  
Phase I Implementation”**

Policy Recommendation Paper  
December 2005  
Baker Institute Israeli-Palestinian  
Working Group

**“Bridging the Gap Between Science  
and Society”**

Baker Institute Study 32  
November 2005  
Baker Institute Science & Technology  
Program and Energy Forum

**“Radical Islam in Southeast Asia and  
Its Challenges to U.S. Policy”**

Working Paper  
October 2005  
Fred R. von der Mehden, PhD (Baker  
Institute/Rice University)

**“The War on Terrorism After Iraq  
Working Paper”**

October 2005  
Gavin M. Dillingham (Rice University),  
Richard J. Stoll, PhD  
(Rice University), Joe Barnes,  
PhD (Baker Institute), and  
Megan Clark (St. Agnes  
Academy)

**“The Outlook for Future Oil Supply  
from the Middle East and Price  
Implications”**

Faculty Study  
August 2005  
Amy Myers Jaffe (Baker Institute  
Energy Forum)

*To download the complete text of these pub-  
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at <http://bakerinstitute.org> and look under  
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