

Date: Fri, 20 Nov 2009

To: "Dr. Baruch Fischhoff – Chair, National Academy of Sciences Study on Social & Behavioral Science and Improving Intelligence"

<baruch@cmu.edu>

From: Lloyd Etheredge <lloyd.etheredge@aya.yale.edu>

Cc: [Study group members]

Subject: A Fresh Analysis of Power

Dear Dr. Fischhoff and Colleagues:

A Fresh Analysis of Power

The Global 2025 forecast by our DNI's National Intelligence Council includes a deeply conventional, painful, and somewhat charmingly scientific (in appearance) chart: "New International Lineup in 2025? Measurements of State Power as a Percentage of Global Power" (p. 28). [Attached.]

This is an approach to power that needs fresh and updated social science thinking for the 21st century. I suggest a focused chapter, "A Fresh Analysis of Global Power," be included in the National Academy of Science Report.

The DNI's Analysis

The DNI's current zero-sum analysis dates, like the traditional images of diplomacy, from the world of absolute monarchs and formal court protocols at the time of the Congress of Vienna. In those days, global power usually did mean hard military power, which came from economic wealth that allowed monarchs to build navies and pay for armies; and from the size of a national population, which allowed the monarchs to conscript the manpower for navies and large land armies. It was an era of agricultural economy (and, soon, industrial technology) in which conquering more land and/or conquering and controlling sources of raw materials and trade routes were a preoccupation and what states did. But for the 21st century we need to take a fresh look at this whole question of purposes and causal equations,

even for national security.

The NCI's computer program has created a single index based on such national attributes and resources. But to call this "state power" or "global power" in the 21st century is like being impressed by the 2000+ megawatt generating capacity of Hoover Dam when it is not connected to an electric power grid.

Three New Approaches

The National Academy can draw upon social science to recommend new, 21st century, ways to think about international power. Each will require conferences, thoughtful papers, discussions, and hard work to develop. But these lines of investigation will, I think, bring us to a new and useful perspective.

Here are three alternatives, each of which can shed complimentary light on the deeper questions of causation/power in the global processes of the 21st century: 1.) Smart (state) power; 2.) the Forbes model of individual power; 3.) a policy sciences framework:

I.) Smart Power

The Smart Power framework thinks about causation as a skillful and effective combination of hard power and soft power - i.e., guided by greater intelligence (and capacity for learning) than the hard power/neo-con analysts of the recent Bush Administration. The primary application of the idea has been to American (i.e., state power) foreign policy. This approach is still under development - from being a suggestive phrase to becoming a refined tool for analysis, for policy investments, and to forecast who will really have power.<1>

By contrast with Global 2025's page 28, a Smart Power table might include "soft" political dimensions. For example, America's (and the UK's) global power will increase because the political skills of electoral democracy are resources for global organizing unavailable to current Russian leaders and for which China's leaders are not yet equipped. And the forecasting

model would predict that America's share of global power will plummet if it elects leaders as dumb, unilateral, and alienating as George W. Bush.

II.) The Forbes Model

A second line of investigation that the National Academy can recommend as a constructive engagement with the DNI mindset is the new (attached) Forbes ranking, "The World's Most Powerful People." It is unlikely that rigorous social science will produce the same list, but it is interesting, provocative, and a fresh line of work that is worth pursuing. And, in a sense, it might be right, in a deeply radical way, about the 21st century - i.e., it puts individuals at the center of the analysis of global power rather than conventional nation-states. [For example, it is likely that a lot of what happens over the next fifteen years will be discretionary and shaped by individuals - i.e., it cannot be predicted as the kind of priority that *any* leader of a specific nation or organization will pursue. Like running the Hoover Dam without a connection to a power grid, being a President of the United States can be helpful for global power, but not sufficient to be powerful.]

An interesting feature of the Forbes table is how many of the names of the 67 most powerful people in the world might be unknown to most Americans.

III.) A Policy Sciences Approach

Like developing the smart power and Forbes comparisons, the 3.) policy sciences approach really requires a conference, thoughtful papers, and serious thought. But - in outline - here are five steps that, I think, give new, different, informative, and partly unexpected results. The policy sciences framework is eclectic and inclusive: It envisions power as a causal equation in which the components might be states, individuals, NGOs, scientific professionals and policy networks (etc.) or new ideas/learning or communication technologies - i.e., anything that actually is playing or could play a causal role.

A.) **Specify a range of outcomes/goals and analyze each domain separately.** For each domain and outcome you will find different answers about power/producing results.<2>

I am attaching an example of setting specific goals in seven different domains. It comes from the Clinton years, when the Department of State had a vision for global leadership, policy management, and (linked) budgeting. America's specific goals were expressed as quantitative measures (another phase of the project, after the enclosed table was published), forecasting was to be rigorous and quantitative, and there would be annual performance reviews to determine if the State Department's professionals were "on track" or if the trajectory was falling below what was required. (The visionary system also was supposed to be linked to learning about power - i.e., analyzing what was working, or not working.)

[One immediate implication of this example is that the DNI's forecasting databases and analysis methods should now, in the Obama Administration, be upgraded and become more rigorously quantitative. This President, too, is highly purposive. Quantified DNI forecasts can help government bureaucracies to focus their efforts and obtain needed additional resources.]

B.) **Do a refined political analysis for each actor.** Individual actors usually become powerful when they have goals and resources, make commitments (i.e., get organized and purposive) and are willing to pay the costs and persevere to get what they want. [Most of these characteristics are not included in the computer results in Global 2025 p. 28.] Make this political analysis and, then, expand the analysis to include enrollment and alliance-building. Update the analysis for the full coalition.

The key political truth - even in democracies - is that the future often belongs to actors, including intense and motivated minorities, who organize.

C.) **Think systemically.** If you want the global power to do almost anything - retain or increase your security, eliminate nuclear weapons, build a resilient and functional international financial system, or improve women's

rights, you have to think systemically.

This third step means, to begin, that the data and DNI political analysis also must include characteristics of the wider system - e.g., who else in the system is opposed, what resources they have, how much they care and are willing to spend to stop you. Or whether so many people/nations are lethargic or uninterested (etc.) that you cannot get a critical mass.

Thinking systemically also means analyzing the new communication or scientific technologies that are, or could be available; the institutions that can be built or improved, changes in global youth culture that can help, etc.

D.) Add psychology: The 21st-century truth about power in world politics is that, if people think differently, almost anything is possible.

After WWII, when the new USIA and Voice of America were planned, a famous (new) rule was that America's global power could come from three sources: guns, money, and words.

Today, I think we could change the formula to: "guns, money, and psychology." We have a global environmental movement and a global human rights movement because some people have mastered the art and science of creating global movements. And they have the resources (including the new communication technology) to provide leadership and organize followers. Too, Reagan and Gorbachev were able, by a process that I will call "psychological" and that was not readily forecast by the CIA and/or "hard power" *Realpolitik* theorists, to make connections, change misperceptions, call off the Cold War, and reverse the nuclear arms race.

- Psychological insight and variables may be the greatest new resource for power - soft, smart, or otherwise - that new DNI data and analysis can include. Anwar Sadat said that 90% of the problem of achieving peace in the Middle East was psychological. And this might be a good estimate, and good to know, in any area.

It might seem that "psychology" and psychological change are easy,

and sometimes this is true. However, often, the application of psychology resembles what the sociologist Max Weber called, "the slow honing of hard boards" i.e., it requires a lot of talk, good listening, patience, and perseverance.

E.) Cross-Walk the Analysis

The final step is to cross-walk the analysis of the different domains to identify shared components and investments that can be recognized by causal/forecasting models to make a difference. And, thus, increase power.<3> Here are four examples:

1.) Accelerating scientific innovation, in most domains, beneficially alters most equations. One of the investments, insufficiently addressed in DNI forecasting models, is the bold and creative use of new global communications technologies to achieve goals. By contrast, a policy science/causal analysis suggests building free global communication nets for scientists - a process that has begun in several biomedical/health areas (e.g., <http://www.videocast.nih.gov>). You can add extraordinary power to achieve better health for people in all countries if your forecasting model has a scientific innovation sub-routine to create a rapid-learning international health system based on linked, large databases of Electronic Health Records.<4> This meta-conclusion thus activates another sub-routine, to model how to accelerate scientific innovation in the global system.

2.) Sustained (if possible, higher) economic growth is critical to the favorable forecasting outcomes in most domains. We should try to assure and improve these economic results as a high priority. Thus, for example, another meta-conclusion is that all of the national macro-economic models and data systems must be updated - i.e., whereas they have not been modernized and have been losing their grip on the dynamics of a changing world economy since the early 1990s. (E.g., the attached discussion by Robert Reischauer, former head of CBO and of the Executive Committee of Harvard's Board.)<5> More "global power" also will be available across domains if we upgrade models to understand money and global finance - for example, by testing predator-prey (Lotka-Volterra) models.

3.) Hierarchical psychodramas, especially of the political and religious Right, are a mixed blessing and get in the way. Hierarchical psychodramas of the political Right encode a primitive knowledge about power and control, and simple policy logics, that should be tested, refined, and partly upgraded/replaced. Underwriting the use of social science to develop the alternative of evidence-based social, economic, and international policy will, as it becomes successful, constructively alter cultural and psychological variables and - alongside with domain-specific recommendations - help everyone to achieve better results. <6>

- 4.) Global linkups/networks of scientists and government and NGO professionals in each domain will lay the groundwork for analysis, setting agendas, and getting better results (i.e., for whatever nation or NGO, or professional network, wants to use it). The <http://uc.princeton.edu> University Channel startup and the new www.kaisernetwork.org startup for global health policy/cooperation emerge as key investments for the power of all actors with constructive purposes.

Exciting (Interim) Conclusions

Key conclusions of a policy sciences analysis - at least as I did these five steps in my own head and set my own agenda in the past - include: 1.) Global power is not zero-sum; 2.) There are many different actors and causal components in each area in the 21st century, not only governments. 3.) Most of the old constraints on power and rapid international progress have disappeared. With new intellectual and communication capabilities, and a core set of enabling investments, the positive forecasts in Global 2025 egregiously under-estimate how much can be accomplished.

with my best regards,
Lloyd Etheredge

Attachments:

- DNI, "New International Lineup in 2025? Measurements of state power

as a percentage of global power.” Global 2025, p. 28.

- Dept. of State, “U.S. National Interests and Strategic Goals,” 1998.
- Michael Noer and Nicole Perloth, “The World’s Most Powerful People,” Forbes, November 11, 2009. Excerpt.
- Robert Reischauer, Letter to the author, December 23, 2002.

Endnotes

<1> Joseph Nye and Richard Armitage's A Smarter, More Secure America: Report of the CSIS Commission on Smart Power(2007).

Online at <http://csis.org/node/13391/publications>. There are several follow-on projects, including Smart US-China relations and Smart Global Health Policy. Their theory includes a political message, that achieving any nation's highest power potential will depend upon leaders who are smarter than George W. Bush. Joseph Nye is a former Chair of the National Intelligence Council.

<2> The leadership/investments that you need to organize progress in international public health and/of human rights are different than for the Iran nuclear question or the Middle East peace process.

<3> A policy sciences approach may not be in a deep disagreement with Global 2025, whose authors recognize that leadership (whether present or absent) will be critical. However, they left Leadership as a black box

<4> Six recommendations, and further details about Electronic Health Records systems, for the CSIS Smart Global Health Policy Commission are online at www.policyscience.net

<5> There is a longer discussion of stalled macro-economic modeling (the Luce Commission case) on the www.policyscience.net Website.

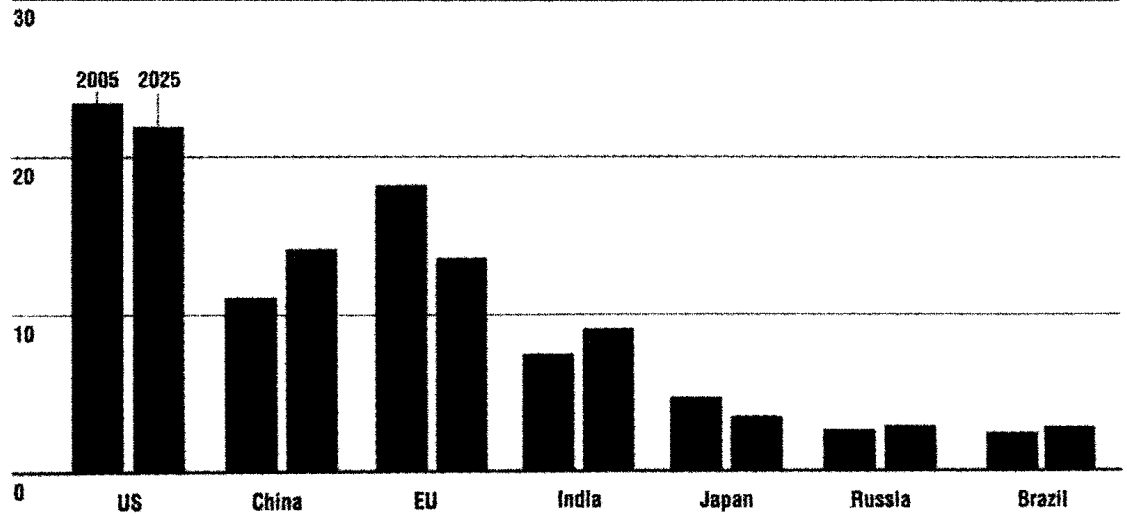
<6> This class of models are explored in "President Reagan's Counseling," several unpublished drafts, the "Wisdom and Public Policy"

chapter, and the "Grand Challenges" plan to map the brain-mind links of politics and emotion, also on the www.policyscience.net Website.

My scientific hypothesis about the religious and political Right illustrate the kind of ideas that may be muted in a DNI government publication - i.e., part of a DNI/bureaucratic risk protocol.

New International Lineup in 2025?

Measurements of state power as a percentage of global power



Source: International Future Model

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CHAPTER 3

THE NEW PLAYERS

U.S. NATIONAL INTERESTS AND STRATEGIC GOALS

National Security:

- Ensure that local and regional instabilities do not threaten the security and well-being of the United States or its allies.
- Eliminate the threat to the United States and its allies from weapons of mass destruction or destabilizing conventional arms.

Economic Prosperity:

- Open foreign markets to free the flow of goods, services, and capital.
- Expand U.S. exports to \$1 .2 trillion by 2000.
- Increase global economic growth.
- Promote broad-based economic growth in developing and transitional economies.

American Citizens and U.S. Borders:

- Enhance the ability of American citizens to travel and live abroad securely.
- Control how immigrants and nonimmigrants enter and remain in the United States.

Law Enforcement:

- Minimize the impact of international crime on the United States and its citizens.
- Reduce significantly from 1997 levels, the entry of illegal drugs into the United States.
- Reduce international terrorist attacks, especially against the United States and its citizens.

Democracy:

- Increase foreign government adherence to democratic practices and respect for human rights.

Humanitarian Response:

- Prevent or minimize the human costs of conflict and natural disasters.

Global Issues:

- Secure a sustainable global environment in order to protect the United States and its citizens from the effects of international environmental degradation.
- Stabilize world population growth.
- Protect human health and reduce the spread of infectious disease.



Special Report

The World's Most Powerful People

Michael Noer and Nicole Perlroth 11.11.09, 6:00 PM ET

"I love power. But it is as an artist that I love it. I love it as a musician loves his violin, to draw out its sounds and chords and harmonies." --Napoleon Bonaparte

Power has been called many things. The ultimate aphrodisiac. An absolute corrupter. A mistress. A violin. But its true nature remains elusive. After all, a head of state wields a very different sort of power than a religious figure. Can one really compare the influence of a journalist to that of a terrorist? And is power unexercised power at all?

In compiling our first ranking of the World's Most Powerful People we wrestled with these questions--and many more--before deciding to define power in four dimensions. First, we asked, does the person have influence over lots of other people? Pope Benedict XVI, ranked 11th on our list, is the spiritual leader of more than a billion souls, or about one-sixth of the world's population, while Wal-Mart CEO Mike Duke (No. 8) is the largest private-sector employer in the United States.

[In Pictures: The World's Most Powerful People](#)

Then we assessed the financial resources controlled by these individuals. Are they relatively large compared with their peers? For heads of state we used GDP, while for CEOs, we looked at a composite ranking of market capitalization, profits, assets and revenues as reflected on our annual ranking of the [World's 2000 Largest Companies](#). In certain instances, like *New York Times* Executive Editor Bill Keller (No. 51), we judged the resources at his disposal compared with others in the industry. For billionaires, like Bill Gates (No. 10), net worth was also a factor.

Next we determined if they are powerful in multiple spheres. There are only 67 slots on our list--one for every 100 million people on the planet--so being powerful in just one area is not enough to guarantee a spot. Our picks project their influence in myriad ways. Take Italy's colorful prime minister, Silvio Berlusconi (No. 12) who is a politician, a media monopolist and owner of soccer powerhouse A.C. Milan, or Oprah Winfrey (No. 45) who can manufacture a best-seller and an American President.

Lastly, we insisted that our choices actively use their power. Ingvar Kamprad, the 83-year-old entrepreneur behind Ikea and the richest man in Europe, was an early candidate for this list, but was excluded because he doesn't exercise his power. On the other hand, Russian autocrat Vladimir Putin (No. 3) scored points because he likes to throw his weight around by jailing oligarchs, invading neighboring countries and periodically cutting off Western Europe's supply of natural gas.

To calculate the final rankings, five Forbes senior editors ranked all of our candidates in each of these four dimensions of power. Those individual rankings were averaged into a composite score, which determined who placed above (or below) whom.

U.S. President Barack Obama emerged, unanimously, as the world's most powerful person, and by a wide margin. But there were a number of surprises. Former President George W. Bush didn't come close to making the final cut, while his predecessor in the Oval Office, Bill Clinton, ranks 31st, ahead of a number of sitting heads of government. Apple's Steve Jobs easily made the list, while Arnold Schwarzenegger, the movie star governor of California (which alone has an economy larger than Canada's) did not.

This ranking is intended to be the beginning of a conversation, not the final word. Is the Dalai Lama (No. 39) really more powerful than the president of France (No. 56)? Do despicable criminals like billionaire Mexican drug lord Joaquín Guzmán (No. 41) belong on this list at all? Who did we overlook? What did we get wrong? Join the conversation by commenting now.

Special Report

The World's Most Powerful People

11.11.09, 06:00 PM EST

Rank	<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Age</u>
1	Barack Obama	President	United States of America	48
2	Hu Jintao	President	People's Republic of China	66
3	Vladimir Putin	Prime Minister	Russia	57
4	Ben S. Bernanke	Chairman	Federal Reserve	55
5	Sergey Brin and Larry Page	Founders	Google	36
6	Carlos Slim Helu	Chief executive	Telmex	69
7	Rupert Murdoch	Chairman	News Corp.	78
8	Michael T. Duke	President, CEO and Director	Wal-Mart Stores, Inc.	59
9	Abdullah bin Abdul Aziz al Saud	King	Saudi Arabia	85
10	William Gates III	Co-Chair	Bill & Melinda Gates Foundation	54
11	Pope Benedict XVI	Pope	Roman Catholic Church	82
12	Silvio Berlusconi	Prime Minister	Italy	73
13	Jeffrey R. Immelt	Chairman	General Electric Company	53
14	Warren Buffett	Chief executive	Berkshire Hathaway	79
15	Angela Merkel	Chancellor	Germany	55

16	Laurence D. Fink	Chairman	BlackRock, Inc.	57
17	Hillary Clinton	Secretary of State	United States of America	62
18	Lloyd C. Blankfein	Chairman	Goldman Sachs Group, Inc.	55
19	Li Changchun	Propaganda Chief	Communist Party of China	65
20	Michael Bloomberg	Mayor & Founder	New York City & Bloomberg LP.	67
21	Timothy Geithner	Secretary	United States Treasury	48
22	Rex W. Tillerson	Chairman	ExxonMo Corp.	57
23	Li Ka-shing	Chairman	Cheung Kong (Holdings) Limited and Hutchison Whampoa Limited	81
24	Kim Jong Il	Chairman of National Defense Commission	North Korea	68
25	Jean-Claude Trichet	President	European Central Bank	66

1 - 25	▼
1 - 25	▼

Rank	Name	Title	Organization	Age
26	Masaaki Shirakawa	Governor	Bank of Japan	60
27	Sheikh Ahmed bin Zayed al Nahyan	Managing Director	Abu Dhabi Investment Authority	41
28	Akio Toyoda	Chief executive	Toyota Motor Corporation ADS	53
29	Gordon Brown	Prime Minister	United Kingdom	58
30	James S. Dimon	Chairman	JPMorgan Chase & Company	53
31	Bill Clinton	Former President	United States of America	63
32	William H. Gross	Chief Investment Officer	Pacific Investment Management Company	65
33	Luiz Inacio Lula da Silva	President	Brazil	64
34	Lou Jiwei	Chairman	China Investment Corporation	59
35	Yukio Hatoyama	Prime Minister	Japan	62
36	Manmohan Singh	Prime Minister	India	77
37	Osama bin Laden	Founder	al-Qaeda	52
38	Syed Yousaf Raza Gilani	Prime Minister	Pakistan	57
39	Tenzin Gyatso	Dalai Lama	Tibet	74
40	Ali Hoseini-Khamenei	Grand Ayatollah	Shi'a	70

41	Joaquin Guzman	Drug Trafficker	Sinaloa Cartel	52
42	Igor Sechin	Deputy Prime Minister	Russia	49
43	Dmitry Medvedev	President	Russia	44
44	Mukesh Ambani	Chairman	Reliance Industries Limited	52
45	Oprah Winfrey	Media Personality	The Oprah Winfrey Show	55
46	Benjamin Netanyahu	Prime Minister	Israel	60
47	Dominique Strauss-Kahn	Managing Director	International Monetary Fund	60
48	Zhou Xiaochuan	Governor	People's Bank of China	61
49	John Roberts Jr.	Chief Justice	United States Supreme Court	54
50	Dawood Ibrahim Kaskar	Head	D-Company	53

Rank	Name	Title	Organization	Age
51	William Keller	Executive Editor	The New York Times	60
52	Bernard Arnault	Chairman	Louis Vuitton Moet Hennessy	60
53	Joseph S. Blatter	President	The International Federation of Association Football (FIFA)	73
54	Wadah Khanfar	Director-General	Al Jazeera	41
55	Lakshmi Mittal	Chairman	ArcelorMittal ADS	59
56	Nicolas Sarkozy	President	France	54
57	Steve Jobs	Chief executive	Apple, Inc.	54
58	Fujio Mitarai	Chairman	Canon, Inc. ADR	74
59	Ratan Tata	Chairman	Tata Group	71
60	Jacques Rogge	President	International Olympic Committee	67
61	Li Rongrong	Chairman	State-owned Assets Supervision and Administration Commission of the State Council	65
62	Blairo Maggi	Governor	Mato Grosso	53
63	Robert B. Zoellick	President	World Bank	56
64	Antonio Guterres	High Commissioner for Refugees	United Nations	60
65	Mark John Thompson	Director-General	British Broadcasting Corporation	52
66	Klaus Schwab	Founder	World Economic Forum	71
67	Hugo Chavez	President	Venezuela	55

ROBERT D. REISCHAUER
President

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December 23, 2002

Dr. Lloyd S. Etheredge, Director
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New Haven, CT 06520-8215

Dear Dr. Etheredge:

Thank you for your letter and thoughtful attachment. I am in complete agreement that the economic data we collect has significant deficiencies that limit our ability to understand the economy's problems and chart future policy.

We don't collect some information that is needed and gather much that we could do without. We collect other data in insufficient detail and almost always take too long to release the data for it to be useful in policy decisions.

As you know better than I, there are many reasons for this situation. What we collect and how we collect it reflects the forces at play in the first half of the last century and those forces do not want to give anything up. Congress has little interest in devoting more scarce budget resources to collect new and better information. Few economists who use the data appreciate its limitations. They have been raised on certain data sets and treat them as if they are part of the underlying environment, not subject to change. They put a premium on continuity and don't want discontinuity in the data sets they know and use.

I don't think I would be as critical as you are about CNSTAT/NCR. I don't think they would have much of an impact even if they had done the studies and made the recommendations you think warranted. Nor do I think universities (Yale or Harvard) or the Fed could make much of a dent in the problem. Rather, I think a presidential or congressional study commission is called for—one with a clear mandate and a promise that added resources will be devoted to strengthening the statistical system based on the commission's report. Unfortunately, the prospects for such an initiative rising to the top of policymakers' lists of things to do is very, very low.

Nevertheless, I wish you well in your efforts.

Sincerely,

