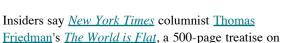


## Going Where No Report Has Gone Before

How did a National Academies manifesto get science on the Bush administration's agenda?

by DAVID EPSTEIN • Posted March 16, 2006 12:41 AM

Several scientists probably did a double take when <u>President Bush</u> announced a plan to double funding for basic research over the next decade during January's <u>State of the Union address</u>. In recent years, the Oval <u>Office</u> couch had been cold to government scientists suggesting that the President request more funds for research. Instead, a grim trend of neglect for science ensued, culminating last year in the <u>National Institutes</u> <u>of Health</u> choking down their first budget cut since 1970.





Credit: Klaas Lingbeek-van Kranen

the globalization of business, as well as a report from the <u>National Academies</u>, which landed on the president's desk like a ton of uranium, has the <u>White House</u> suddenly taking cues from a liberal wonk, not to mention a bunch of scientists. The proposed reallocation of federal funds will benefit the <u>National Science Foundation</u>, the <u>Department of Energy</u>'s <u>Office of Science</u>, and the <u>National Institute of Standards and Technology</u>, all while overall non-military spending is slated for reduction.

"I like and respect our president, but he's a slow learner when it comes to this," said, <u>Rep. Eddie Bernice Johnson</u>, a Texas Democrat on the <u>House Committee on Science</u>.

One senior government official said that Friedman's book provided Washington insiders and elected officials a much-needed lexicon with which to discuss America's burgeoning competitiveness woes in the international scientific arena. The National Academies <u>report</u>, titled "Rising Above the Gathering Storm," harnessed momentum from Friedman and pushed full speed ahead. Both documents have gained so much traction in Washington that <u>David Goldston</u>, chief of staff of the House Committee on Science, recently called this the "Year of Science."

The National Academies report frequently reads like an ultimatum: Unless we bolster scientific research, it warns, "We can expect to lose our privileged position in the world," as science and technology jobs go abroad. Its damning conclusion proclaims, "For the first time in generations, the nation's children could face poorer prospects than their parents and grandparents did."

According to a senior Congressional staff member, the current administration is renowned for ignoring academy reports, but John H. Marburger, III—Bush's science adviser and director of the <u>Office of Science and Technology</u> <u>Policy</u>—said a strong case "came together" that persuaded the president to reemphasize research. "Gathering Storm' had a significant impact," Marburger said. "The president is grateful to the academies...and industry."

As any veteran climate scientist knows, President Bush isn't one to be swayed by a little doomsday prophesying, even (or rather, *especially*) from the science community. The difference, in this case, is that the National Academies of Science, which put together the report at the behest of Senators Lamar Alexander (R-TN) and Jeff Bingaman (D-NM), assembled a reporting committee that had a real shot of getting the president's ear.

Alongside prominent scientists like <u>Charles M. Vest</u>, president emeritus of <u>MIT</u>, and three <u>Nobel</u> laureates -<u>Steven Chu</u>, <u>Joshua Lederberg</u> and <u>Robert C. Richardson</u>-the committee included captains of industry. The academies went outside their walls, appointing <u>Norman R. Augustine</u>, retired CEO of <u>Lockheed Martin</u>, to chair the 20-person committee that issued "Storm," as the report is often referred to on Capitol Hill. (On other occassions, the report is affectionately called the "Augustine report.")

In addition to having once worked with the government to create an arms export subsidy program worth \$15.2 billion, Augustine remains a regular Republican donor and Bush confidante. Other committee members have similarly close ties: <u>Craig Barrett</u>, chairman of the board of the <u>Intel Corporation</u>, is married to <u>Barbara Barrett</u>, whom <u>President Bush nominated</u> to serve as secretary of the <u>Air Force</u> in 2003; <u>Lee R. Raymond</u>, recently retired CEO of the <u>Exxon Mobil Corporation</u>, is a major donor to the <u>Republican Party</u>.

These men, according to the Congressional staffer, have helped convince the administration that the flat world one where the lowering of global political and technological barriers allows jobs and research opportunities to be given to the cheapest, qualified candidates—is influencing the way businesses are investing. As "Storm" notes, "a company can hire eight young, professional engineers in India for the cost of one in America."

The concerns of business moguls got the report exposure that scientists and engineers haven't been able to muster alone. Shortly after the report came out in October of last year, White House <u>Chief of Staff Andrew Card</u> gave it to every member of the <u>US Chamber of Commerce</u> as required reading.

On January 25th, Senators Alexander and Bingaman introduced the <u>Protecting America's Competitive Edge Act</u>, or PACE Act, to Congress along with three of their fellow senators. The act seeks to implement many of Storm's recommendations as legislation—including huge increases in basic research funding and the creation of a <u>DARPA</u>-like agency in the Department of Energy. The measure had 60 co-sponsors—30 Democrats and 30 Republicans— sign on within a week of the announcement.

Senator Bingaman, when introducing the PACE Act, called the emerging competition for science and technology jobs this generation's <u>Sputnik</u>, a call to arms that the US is being outpaced in scientific endeavors. He added that the current climate is more threatening because there's no physical object in the October sky to urge America to action.

In his book, Freidman wrote that "Boston, Bangalore and Beijing" have become "next-door neighbors overnight." Standing behind the senators as they introduced the PACE Act was Norm Augustine. As he left the gathering, he stopped to emphasize the importance of the competitiveness effort. His crib sheet could not have been more obvious: "Baghdad, Bangalore and Bethesda are neighbors now," he said.

Friedman's book and "Storm" have not moved mountains only on Capitol Hill. <u>Gaston Caperton</u>, president of the <u>College Board</u>, the non-profit organization that administers the <u>SAT</u> and the <u>Advanced Placement</u> tests, cited "Storm" when he spoke in February about getting more students into AP math and science courses. "Storm" recommends a tripling by 2010 of the number of students who pass a math or science AP exam each year— approximately 700,000 students. The president, in turn, announced a plan to train 70,000 advanced placement math and science teachers over the next 10 years as part of his <u>American Competitiveness Initiative</u>, which he introduced during the State of the Union.

On February 23rd, the <u>National Science Board</u> released a report on the state of American science and engineering education. Echoing the one-two punch that's taken Washington by, well, storm, a booklet accompanying the report begins with quotes from both *The World is Flat* and "Storm." Hardly a science-related pamphlet has circulated at any of the recent budget meetings without a reference to the latter.

"Technology allows suppliers to be anywhere in the world," Augustine said as he exited the January 25th Pace Act press conference. "Since the fall of communism, there have been three billion more capitalists," and US companies want to feed them energy.

"We don't only want to win the Nobel Prizes," said <u>Sen. Barbara Mikulski (D-MD)</u>, another of the act's cosponsors. "We want to win the market." Going Where No Report Has Gone Before, written by David Epstein, posted on March 16, 2006 12:41 AM, is in the category Politics. Permalink.

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