

# Wanted: The Ideal Science Adviser

After a false start, the White House has a new short list of candidates to succeed Jack Gibbons. Before a decision is made, here's what the experts say it should be looking for

The job comes with a \$133,600 salary, a 39-person staff, and a comfortable office with a marble fireplace. And the successful candidate also enjoys close proximity to the ultimate chief executive, the president of the United States. So why is it so hard for the White House to find a successor to Science Adviser Jack Gibbons, who turns 69 next month and is ready to retire?

"You'd be amazed by how many people say no to a job like this," says one White House official ruefully. "It's hard to fill." One problem, say a bevy of science-policy observers, is that there are barely 3 years left in President Bill Clinton's final term. Second, "it's a grueling life," says one scientist. And budget constraints could easily crimp the style and influence of an ambitious new adviser and his Office of Science and Technol-

ogy Policy (OSTP). "They're in a tough bind," says one Washington analyst. More fundamentally, the Administration is not sure what role it wants the new science adviser to play.

Norm Augustine, would be a catch but is unlikely to accept the position, say government and industry sources. The other two—James Baker, the head of the National Oceanic and Atmospheric Administration (NOAA), and Harvard University public policy professor and physicist John Holdren—are less prominent but are known quantities and are interested in the job, according to those close to them. A fourth name being bandied about is John Young, former head of Hewlett-Packard and chair of the President's Council of Advisers on Science and Technology (PCAST). Although he is on friendly terms with Clinton, he says he's not interested.

As the search continues, White House officials, congressional staffers, scientists, engineers, and industry managers seem to agree about what it takes to do the job well. "The ideal person would be effective within the White House, have access to the president, and have strong credentials within the science community and within industry," says one PCAST member. All put a premium on the candidate's ability to win the confidence of the chief executive and

the vice president. "Nothing else is as important," says Yale physicist Allan Bromley, science adviser under President George Bush. However, corralling someone who can operate effectively in the widely varied domains of the Oval Office, foreign capitals, and the sprawling federal R&D bureaucracy is another matter. "It's hard to find one warm body that fits all those criteria," admits another PCAST member.

Given the current debate, *Science* asked an array of politicians, scientists, industry managers, and policy analysts what type of person the White House should be looking for, and requested examples of people who might fit the bill. Their answers—strikingly, almost exclusively white males over 50—can be grouped into six categories that, together, constitute the ideal science adviser.

## The Industrialist

Augustine typifies this pool of talent. An experienced engineer and aerospace executive, he has political connections, a proven track record of success in business, and expertise in a wide range of science and technology matters. He's also a member of PCAST. "He has all the qualities you want,"

says Bromley. Such a person, say analysts, could unite the disparate R&D fiefdoms, strengthen ties between industry and academia, and win presidential access. "This president has a high regard for high-tech corporate types," notes one House staffer. But academics might view such a longtime corporate boss with suspicion, and an industrialist might become frustrated with the chaotic and crisis-filled atmosphere in Washington. Others who fall into this category include Charles Sanders, a PCAST member and former head of the U.S. arm of pharmaceutical giant Glaxo, and James McGroddy, who recently retired as head of IBM's research division.

## The Administrator

Chuck Vest, a mechanical engineer and president of MIT, is a stellar example of this type. Well-respected for his organizational skills and knowledgeable in the ways of large and complex institutions, such a science adviser could coordinate the scattered bits of R&D spread throughout a dozen agencies. But some say such an administrator might be more comfortable managing the status quo than generating

and selling a sweeping vision of the country's scientific future. "He'd just put the best face on the president's budget," speculates a congressional aide who has worked with Vest. Other examples of respected administrators are psychologist Judith Rodin, a PCAST member and president of the University of Pennsylvania, and mathematician Ralph Gomory, head of the Sloan Foundation in New York and former vice president for research at IBM.



## The Visionary

NASA chief Dan Goldin, who has won praise from Gore for downsizing and doing more with less, is widely cited as the archetype of

## THE CURRENT SHORT LIST



**Candidate:** Norm Augustine

**Age:** 62

**Job:** Retired, ex-CEO Lockheed Martin

### Academic

**Background:** Aeronautical engineer

**Strength:** Successful manager

**Weakness:** Used to being #1



**Candidate:** Jim Baker

**Age:** 60

**Job:** NOAA chief

**Background:** Oceanographer

**Strength:** Strong ties to Gore

**Weakness:** Unknown in wider R&D community



**Candidate:** John Holdren

**Age:** 53

**Job:** Harvard professor

**Background:** Physicist

**Strength:** Respected academic

**Weakness:** Lacks political experience



this category. Someone with Goldin's brash, driven temperament could shake up the quiet world of federal science and technology, say observers, forcing bureaucratic change. "A spokesman for R&D with vision would be a good thing," says mathematician Philip Griffiths, who directs the Institute for Advanced Study in Princeton, New Jersey, and is a former member of the National Science Board. A prominent figure such as Harvard University biologist Stephen Jay Gould could serve a similar visionary role by communicating the importance of R&D to the public, say some analysts. But a temperamental style might backfire in the White House, where staff are expected to toe the party line. "A luminary could be isolated [from other White House aides] within 2 months," says one R&D lobbyist. Gould acknowledges the limitations of going against the grain. "Iconoclasts are great," he says. "But they tend to get disheartened quickly."



### The Politico

Norman Mineta, a former Democratic congressman from California and now a Lockheed Martin manager, is seen by some colleagues as the type of science adviser with the political experience necessary to navigate the complex waters of the White House. "He has broad-based knowledge of the field, was a member of the [House] Science Committee, and has connections to high-tech industry," notes Robert Walker, who chaired the committee in 1995-96 before leaving Congress. But choosing a former politician might unsettle an R&D community more comfortable with one of its own. "You need someone with credibility in the community so they can hit the ground running," says one scientist. Another ex-member who might fill the bill is moderate Republican Bill Green of New York, a strong environmentalist.

### The Professor

Holdren, also a member of PCAST, exemplifies the scholar-policy guru who has traditionally filled the post. "He's gifted," says one university lobbyist. But an academic like Holdren, who came to Harvard last year from the University of California, Berkeley, could face "a huge learning curve" in the ways of Washington, says Walker. The appointee would also have to resist favoring his or her field of specialty, and overcome a perception of narrowness when addressing broader issues. Another exemplar is University of California, Irvine, atmospheric chemist Sherry Rowland. But colleagues say Hold-

ren's focus on energy and the Nobel's passion about atmospheric change could limit their effectiveness by pegging them as "one-issue" advisers.



### The Insider

This category is exemplified by NOAA chief Baker, a veteran of Washington who has forged a good relationship with Gore. Choosing a known quantity like Baker would improve the odds of an easy Senate confirmation and minimize the time needed to learn the ropes. Another person in this category, say observers, is Neal Lane, director of the National Science Foundation (NSF). "A low-profile person influential with the vice president could be the most effective choice," says one academic lobbyist. But an insider lacking national

stature could find it hard to be assertive and effective in the White House, they add. Harold Varmus, the Nobel laureate who leads the National Institutes of Health, could provide a higher profile. As one Administration official notes, "the president certainly is interested in medical research."

Whoever is chosen will have to move quickly to have any impact on federal R&D. The president's 1999 budget request is nearly ready, leaving a new adviser with a chance to really shape only two budget cycles—fiscal years 2000 and 2001. "And besides, the basic budget decisions for the next 5 years have been made" in last year's budget agreement between Clinton and Republican leaders in Congress, says a White House aide.

The logistics of bringing in an outsider are formidable, from the hassles of relocation to the financial disclosures, FBI checks, and Senate confirmation required of any nominee. Those obstacles, say science policy watchers, give an advantage to an insider like Baker. "I'm not sure they are interested in getting someone who fits the [ideal] criteria," says Erich Bloch, a former NSF director and currently a senior fellow at the Council on Competitiveness. Adds one academic familiar with the search: "They can't find anyone with the same reputation [as Deutch], so now they don't really care who gets the job."

White House officials say the protracted search is a healthy sign, reflecting a vigorous debate about the relative importance of such core R&D areas as the life sciences, the environment, and information technology. "We need an aggressive, articulate, and well-connected individual to help elevate science and technology as a priority within the Administration—and to attract the best and the brightest to OSTP," adds another. The R&D community is hoping against hope that President Clinton finds such a person—and soon.

—Andrew Lawler

