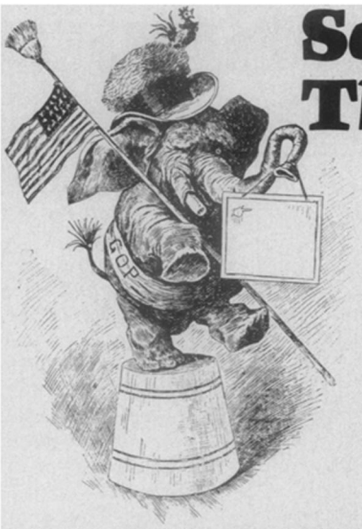

Science and Technology: The Next Administration

Science News reports results of its own post-election analysis of what types of changes to look for in research under Reagan

BY JANET RALOFF

Since the Nov. 4 election, seasoned political analysts have been debating spicily what Ronald Reagan's triumphant bid for the presidency heralds in terms of policy changes and economic projections. But listening to those who would prognosticate on the significance of Reagan's victory to the way research will be conducted in the United States yields an even livelier and more provocative exchange. One thing on which all sides agree is that there will undoubtedly be a major reordering of priorities as to who and what research will be funded during the next administration.

It should come as no surprise to anyone who followed the last few weeks of campaigning that Reagan will propose mounting a major initiative in development of technologically advanced weapons systems. The program to commercialize production of synthetic fuels, launched by President Jimmy Carter, will undoubtedly accelerate under Reagan's ministers. And supporters of nuclear power — particularly breeder-reactor development — will find a much more sympathetic ear in the White House.

But to date, those are about the only solid hints that Reagan has offered regarding research emphasis. One consultant to the Republican National Committee probably summed it up best saying, "Science, Ronald Reagan hasn't even thought about it yet. Maybe in six months. Right now he's too busy focusing on immediate problems —you know, unemployment, the economy and foreign affairs."

Further predictions — and that's all they are right now, informed crystal-ball readings — draw from an analysis of the president-elect's philosophy, ideology, campaign rhetoric and his performance as the governor of California.

For example, several California observers offer: "Reagan is the world's greatest delegator. The key to understanding what science policy will be in the future is who he brings in as his advisors."

Though still two months from taking office, Reagan has already convened a science and technology task force (see box), one of 23 domestic and economic-policy groups that together include 329 advisers. (These join 25 existing foreign-policy and defense working groups that form the core of Reagan's advisory network.) Each member has been assigned one major study issue, such as weapons-development policy, the role of a science adviser or whether there is a need to classify research findings. Individual reports will circulate for comment and eventually meld into a position paper to reach Reagan prior to the inauguration.

Although hesitant to comment on his panel's interim views, Harold Agnew, the former head of Los Alamos Scientific Laboratories, did affirm his task force's commitment to continued federal funding of basic research.

This comment is not as innocuous as it might at first sound. An Oct. 3 article in SCIENCE — which noted economist Milton Friedman's opposition to federal funding of research — has fueled concern among many questioned by SCIENCE NEWS that Reagan might be considering Friedman's view seriously. Not only Friedman, but other Reagan economic advisers as well, have supported a move toward the takeover of research and its funding by the private sector. In fact, at least three persons connected with the Reagan campaign and its advisory network told SCIENCE NEWS that a number of Reagan advisers are tilting in the direction of an industry takeover of science and engineering support together with a diminishing or even dissolution of the National Science Foundation.

Though this no doubt is a gross exaggeration of any action the Reagan administration is likely to propose, the idea is at least one with which many Reagan supporters identify philosophically. One of the tenets of "Republican science," explains a member of the House Science and Technology subcommittee's minority staff, is that at least to some extent, you let the market dictate where you go. In contrast, "Democratic science," which has flourished during the past several decades, is more socialistic; science and technological research are viewed as benefits to the common welfare of the electorate, thereby justifying public support.

Since industry will tend to find most attractive research that pays off quickest and most handsomely, "Republican science" favors research for which obvious benefits, spinoffs and applications are most likely.

As one congressional observer put it, "Curiosity for curiosity's sake is on the way out." Another said, "Almost certainly, basic research won't get the same support it had under Carter." He went on to predict that "behavioral and social sciences will really catch it in the teeth" because ideologically the Republicans don't like that kind of "invasion" of the family and the individual.

A natural extension of this philosophy would suggest that applied science and engineering represent the epitome of "Republican science." And not surprisingly, says Henry Ebert of the American Society of Mechanical Engineers, "engineers were very supportive of the candidate Reagan."

In fact, some prominent engineers — cutting across all disciplines — even formed a political action group — Engineers for Reagan-Bush. "I don't know how effective this committee was in generally interesting engineers for candidate Reagan," Ebert said, "but I certainly see it as symbolic that a committee developed for Reagan and Bush and that no similar group was formed for Carter."

For the research community, the significance of Reagan's political philosophy is especially important this year, relative to most presidential races in the recent past. First, his victory swept in a host of partisan support, including 12 seats in the Senate, 32 more in the House of Representatives, four governorships and more than 200 state legislative seats. Second, the whole "swing to the right," as political analysts are wont to read this election, can't help but encourage Reagan to try to implement the conservative bent that catapulted Republicans to office and unexpectedly to control of the Senate for the first time in 25 years. Third, Reagan is a very effective politician, having demonstrated in California an ability to work effectively with state lawmakers of both parties. Fourth, he is reputedly "tight fisted" and even made fiscal accountability a major campaign plank. With a plan to cut government spending — a major source of basic-research funds — and jobs, the science community will be especially vulnerable relative to many other sectors of the economy. Finally, he is surrounded by a

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surfeit of economic advisers, most of whom appear removed, if not distant, from the issues, concerns, vocabulary and philosophy of most scientists.

While many of these characteristics suggest his administration may prove to be a relative savior for engineering and industry-oriented research, they portend policy changes in science that many researchers will view adversely and will feel they are unable to do anything about.

Among those able to read changes in the political barometer quickest are lobbyists. Already many are arming for what they see as inevitable confrontations.

It's a quick reading of the barometer that has environmental activists out canvasing the House for passage of a Senate bill to save much of Alaska from commercial exploitation by mineral and energy developers (SN: 2/23/80, p. 119). "It would be preferable to have an improvement over that Senate bill," Russell Peterson, president of the National Audubon Society, told SCIENCE NEWS, "but the chance of that occurring is very low."

However, it is Reagan's energy policy that Peterson predicts will initiate one of the biggest environmental confrontations. Reagan supports "the most life threatening routes of energy — synfuels and nuclear.... The life supporting route is through conservation and solar."

Citing a recent Council on Environmental Quality report, Peterson said that "when the people were asked what kind of energy [mix] they would like to see in the year 2000, they put at the top of the list one based on solar energy and conservation; at the bottom they had synfuels and nuclear." Concludes Peterson, "Any elected officials who are out pushing synfuels and nuclear at the expense of solar and conservation have a rude awakening coming downstream."

Dick Munson, coordinator of Solar Lobby, sees a related confrontation brewing. According to Munson, the "most famous line" of Michel Halbouty, a petroleum engineer who heads Reagan's energy task force (see box), "is that the Reagan energy policy is to produce, produce, produce." But Halbouty "concludes that an emphasis on production means a deemphasis on conservation and solar." And with a large number of strong, pro-solar Republicans in the Senate—such as Mark Hatfield (R-Ore.), Robert Packwood (R-Ore.), Peter Domenici (R-N.M.) and Charles Percy (R-Ill.)—they can only spell trouble. Munson suspects "they're going to have a real fight."

It's far too early to tell how many of these predictions are likely to hold true. Though Reagan rode a conservative crest to gubernatorial office similar to the one that catapulted him to the presidency, his performance in office proved a lot more moderate than most supporters had expected. Explains one veteran Reagan watcher, "Reagan's no fool. He's the consummate politican." □