

RESEARCH REPORTS

Reviews of new research by public agencies and private institutions

"The State of Academic Science"

Based on a Study by the National Science Foundation, *Change Magazine* Press, NBW Tower, New Rochelle, N.Y. 10801. 250 pp. \$5.95.

Authors: Bruce L. R. Smith and Joseph J. Karlesky.

Academic science retains the strength and vitality that have made such exceptional contributions to America's overall research and development (R&D) effort in the post-war era, report Columbia Professors Smith and Karlesky. But subtle indications of deterioration raise serious questions for the future.

Inflation, the economic slowdown, and a leveling off of federal support have eroded the financial base of even the wealthier private institutions. Less affluent research centers face more immediate obstacles: Facilities are becoming outdated or cannot be adequately maintained; less "discretionary" money is available to tide researchers over periods of uncertain funding. Deteriorating relations between universities and state and federal governments prompt some scientists to "play it safe" to keep their projects going, with a resulting trend toward less speculative research.

Graduate student enrollments are

declining in several fields (physics, chemistry, mathematics), and some departments—as well as individual scientists—are losing decision-making power to the middle-level university bureaucracy that has emerged to manage interdisciplinary and group research projects. Moreover, the current controversy over recombinant DNA research illustrates an ever increasing involvement by federal, state, and local authorities, the media, and the public, in research decisions.

What kinds of research must be preserved, and where? What is the proper link between teaching and research activities? How and by whom should research decisions be made? For the short term future, the authors write, the \$3.7 billion academic research system remains vigorous. But these complex questions must be addressed—now—to prevent a downward spiral in research capability that will be difficult and costly to arrest.

"The 1978 Budget: Setting National Priorities"

The Brookings Institution, 1775 Massachusetts Ave., N.W., Washington, D.C. 20036. 443 pp. \$11.95 (cloth); \$4.95 (paper)

Editor: Joseph A. Pechman.

President Carter's revision of President Ford's 1978 budget reflects the sharply different economic philosophies of the two chief executives. While both hoped to stimulate the economy in the short run and bal-

ance the budget within three or four years, the eighth annual Brookings budget survey observes that Carter has changed Ford's emphasis by restoring cutbacks in federal spending for health and income security

(although keeping a business and personal tax reduction proposal) and adding \$22.6 billion in expenditures for employment programs—intended as the main stimulus to recovery. The total budget is now \$462.6 billion, with a deficit of \$57.9 billion.

Carter's stimulus package (including the ill-fated \$50 tax rebate and the business tax credit proposals he later withdrew) increases outlays for employment and training assistance (up \$10 billion) and public works programs (up \$4 billion). These programs are designed to improve job prospects in the long run for the chronically unemployed, while at the same time relieving short-term inflationary pressures.

This mixture of long- and short-term objectives is a risky strategy, the authors suggest, particularly because public employment projects are notoriously slow in getting started; tax cuts and spending measures, the report goes on, might better provide an immediate stimulus.

The new administration's revisions in other policy areas generally hold down spending to avoid crowding out programs in the future. Defense

spending, reduced by \$2.8 billion from the proposed Ford level, is nevertheless up by about 3 percent.

The Carter energy program may slow consumer demand and increase alternative supplies but will do so at the expense of higher prices and delays caused by installation of environmental safeguards.

Projecting to 1981, the year Carter hopes to have a sufficient surplus to begin major new spending programs, the report's authors concede that changing circumstances at home and abroad may prove current assessments of future budgets unreliable. Nevertheless, they argue that the administration's inflation-fighting proposals—long-term policies of deregulation, antitrust enforcement, lower price supports, and greater competition from imported goods—will have had only a limited effect on inflation by the next election. Only if inflation drops to 5 percent annually, with unemployment dipping to 4.8 percent, as Carter hopes (Brookings is frankly "skeptical"), will there be leeway for further tax reductions and substantially increased social spending.

"War on Organized Crime Faltering— Federal Strike Forces Not Getting the Job Done"

Report to the Congress by the Comptroller General of the United States, Government Printing Office, Washington, D.C. 20402. 63 pp. \$1.00.

The United States is little closer to controlling organized crime than it was 10 years ago, when President Lyndon Johnson instructed Attorney General Nicholas Katzenbach to direct a coordinated campaign against the rackets.

Neither new organizations—such as the 18 interagency strike forces (these agencies include the Internal Revenue Service, the Postal Service, and the Secret Service) and the National Council on Organized Crime (NCOC)—nor the expenditure of \$80 million a year on investigation and

prosecution of key mob figures has denied organized crime a growing income, estimated at \$50 billion annually from gambling alone. Other illegal activities, including narcotics and loan-sharking operations as well as infiltration of legitimate businesses, continue to flourish. So does corruption of public officials, the sine qua non of organized crime and its largest single expense.

In a review of six federal strike forces (in Cleveland, Detroit, Los Angeles, New Orleans, Brooklyn, and Manhattan), the report identifies a

"Project Interdependence: U.S. and World Energy Outlook Through 1990"

Congressional Research Service, Government Printing Office, Washington, D.C. 20402. 77 pp. \$2.00 (Stock no. 052-070-04090-4)

"The International Energy Situation: Outlook to 1985"

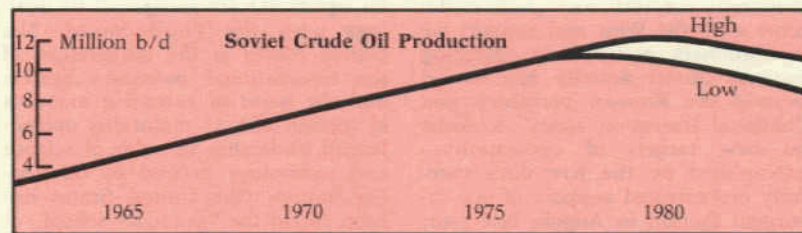
Central Intelligence Agency, Library of Congress Photoduplication Service, Washington, D.C. 20540. 18 pp. \$4.50.

Official and private forecasts have indicated "serious dislocations" in the 1980s as the demands of oil-importing nations approach the export capacity of the Organization of Petroleum Exporting Countries (OPEC). But one of the most critical variables in the energy equation remains a matter of speculation: Will Communist bloc nations, now facing a decline in the growth of Soviet oil production, be forced to join the competition for OPEC oil?

Not likely, concludes a Congressional Research Service study for three House and Senate committees. The Soviet Union is the world's largest petroleum producer (over 10 million barrels a day), but as the "monster" Somotlor-Tyumen oil field in West Siberia "peaks out" in the next year or two, the Soviets will probably be forced to turn to alternate energy sources (nuclear power, hydroelectric power, coal), conservation, and even "draconian" reductions in both energy and GNP growth rates. The reasons: Explora-

tion under permafrost or in ice-locked offshore regions is a formidable task and largely beyond Soviet technology; and Soviet ability to maintain an international, hard currency balance of payments is already strained by imports of Western technology, equipment, grain. The U.S.S.R. cannot afford to enter the OPEC oil market, and in fact currently must *export* oil to the West.

A more pessimistic view comes from the CIA, which predicts that the U.S.S.R. will find itself unable to meet its own needs and those of Eastern Europe by the beginning of the next decade. According to the CIA report, the Soviet Union will turn to OPEC for imports totaling 3.5-4.5 million barrels a day (mb/d) by 1985. This would boost total world demand on OPEC supplies to 47-51 mb/d in 1985 (compared to the congressional estimate of 42.8 mb/d) and increase the demand on Saudi Arabia, the key OPEC producer, to 19 and possible 23 mb/d—"roughly double current capacity."



Senate and CIA reports agree on one crucial point: Soviet oil production will drop dramatically by the early 1980s and possibly as soon as next year.

variety of bureaucratic and conceptual problems hampering the federal effort. For one, officials and agencies cannot even agree on the nature of the enemy. Definitions of organized crime range from the 24 "families" of the Cosa Nostra to "any organized group involved in the commission of a crime." No clear lines of authority govern personnel of the 10 agencies participating in the strike force program, and NCOC, intended as the coordinating body, met for only one year and never developed a national strategy. The Justice Department has

failed to provide criteria for evaluating the strike force program. Its computerized organized crime data system is of "limited use."

Inability to put organized crime leaders out of action long enough to damage criminal operations has also frustrated investigators. Of the nearly 3,000 indictments obtained between 1972 and 1975 by the six strike forces studied, only some 1,300 resulted in guilty pleas or convictions. Less than half of the guilty went to prison—and less than half of these for two years or more.

"The Soviet Union and the Third World: A Watershed in Great Power Policy?"

A Report to the Committee on International Relations, House of Representatives, prepared by the Senior Specialists Division, Congressional Research Service, Government Printing Office, Washington, D.C. 20402. 186 pp. \$3.00 (Stock no. 052-070-04042-4)

In the past two decades, the Soviet Union has established an "impressive global presence," embracing much of the Third World—an area comprising two thirds of the world's 157 nations, half of its population, and 40 percent of its land mass. Increased Soviet influence constitutes a "challenge of the first magnitude" to the United States.

The Brezhnev regime, according to this analysis by the Library of Congress's Congressional Research Service, has successfully pursued the seemingly contradictory goals of détente with the West and support for revolutionary activism in emerging nations. Soviet activity has moved beyond the Russian periphery and "national liberation zones" to focus on new targets of opportunity—exemplified by the Kremlin's carefully orchestrated support of one insurgent faction in Angola last year. Soviet ends have been advanced with such fervor that some observers termed the Brezhnev era a new, imperial phase in Russian history.

The foremost instruments of the Kremlin's influence have been eco-

nomic aid (\$11.4 billion since 1954), trade, and particularly military assistance (\$12 billion since 1954). The Soviet Navy has also been used effectively as an arm of diplomacy.

An expanding Soviet presence among developing nations is of special concern to the West because of the critical importance of Third World resources (especially oil) and the proximity of Third World nations to major international shipping lanes. Even so, the report's authors observe, the United States can count on significant advantages in its dealings with the Third World. The United States is the cornerstone of the international monetary system and the fount of extensive amounts of foreign aid; it maintains unchallenged leadership in fields of science and technology desired by developing nations (the United States has been called the "graduate school" of the Third World); and its ideology of liberty and pluralism retains undiminished appeal. What is lacking, therefore, is not U.S. leverage, but a clear vision of where and how it ought to be applied.

"World Food and Nutrition Study: The Potential Contributions of Research"

Prepared by the Steering Committee, National Research Council Study on World Food and Nutrition, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, D.C. 20418. 192 pp. \$6.75.

In the poorest countries of Asia and Africa, where between 450 million and one billion people now suffer from hunger or malnutrition, food production must double by the end of the century.

But this comprehensive study by the National Research Council (NRC) takes an optimistic view of the future—providing "there is the political will in this country and abroad" to capitalize on several promising developments. Among them: the increasing ability of some developing nations (notably, Mexico, Libya, South Korea, Iran, and a score of others) to meet their agricultural needs, and the potential of scientific research to further improve crop yields. The report implicitly criticizes those who, like Frances Moore Lappé and Joseph Collins, in their book *Food First: Beyond the Myth of Scarcity*, contend that the "food problem" is essentially a "distribution problem."

The Council recommends a massive research and development effort to expand world food supply, reduce poverty, and curb soaring population growth, 80 percent of which, since 1950, occurred in the developing countries. The NRC recommends

training native researchers to adapt new farming systems and technology to their own needs.

U.S.-based research, the NRC suggests, should emphasize four concerns: (1) nutrition and diet, which have greater impact on human health than comparable investments in medicine; (2) food production, particularly genetic manipulation, pest control, and management of tropical soils; (3) food marketing and waste reduction (in some areas, an estimated 50 percent of food supply is lost between harvest and consumption); and (4) mechanisms to promote better distribution.

Coordination of the U.S. food effort would best be accomplished by appointing an Assistant Secretary of Agriculture for Research; boosting agricultural research spending from \$700 to \$820 million (with 10 percent annual increases thereafter); and creating a federal matching-grants program to spur research and development in nonfederal institutions. With parallel commitments from other government agencies, the NRC concludes, "it should be possible to overcome the worst aspects of widespread hunger and malnutrition within one generation."