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Realities Of The 1989 Budget: Number Of Grants Cut By 250, Only 25% Of Approved Will Be Funded

NCI's seven percent increase in the FY 1989 budget over the 1988 fiscal year, amounting to $103.4 million in a total budget of $1.572 billion, seemed at first adequate enough to at least maintain programs at current levels. But NIH Director James Wyngaarden, making a rare appearance at a National

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In Brief

Takeo Kakanaga Dies; President's Cancer Panel To Meet Nov. 7; Young To Give Schwartz Lecture

TAKEO KAKANAGA, one of Japan's leading cancer researchers, died recently of lung cancer. He was 50. Kanaga was chairman of the Dept. of Oncogene Research at Osaka Univ. and director of the Oncogene Research Center. . . . **PRESIDENT'S CANCER** Panel will hold its next meeting Nov. 7 at NIH, Bldg 31 Rm 11A10, 8:30 a.m.-noon. . . . **M.D. ANDERSON** Cancer Center is updating records of more than 18,000 former trainees. Those who do not currently receive MDA's professional education materials but would like to may write to Mercy Holley, Office of Education-165, Univ. of Texas M.D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston 77030. . . . **ROBERT YOUNG**, director of NCI's Centers & Community Oncology Program, will deliver the Bernard Lee Schwartz Memorial Lecture at the 12th annual Scripps Memorial Hospitals Cancer Symposium Nov. 9 in San Diego. His topic will be "Politics of Prevention." The symposium will start Nov. 7. Other speakers include Ernst Wynder, president of the American Health Foundation, on "Historical Issues in Cancer Control;" Daniel Nixon, director of NCI's Cancer Prevention Program, on "NCI's Focus on Prevention--Chemoprevention/Intervention Trials;" Francisco Ferdandez, chief of psychiatry at St. Lukes Episcopal Hospital in Houston, on "Psychiatric Complications of Cancer and Its Treatment;" and Paul Volberding, chief of medical oncology and AIDS activities at San Francisco General Hospital, on AIDS . . . . **CORRECTION:** The correct phone number to call Gerald Rosen for information on the Milken Foundation Cancer Awards (**The Cancer Letter**, Sept. 30) is 213/855-8030. Also, Lawrence Einhorn is a member of the awards committee . . . . **LEGISLATION** sponsored by Reps. Richard Durbin (D-IL), Henry Waxman (D-CA), Fortney Stark (D-CA) and Bob Whittaker (R-KS) would ban smoking in hospitals participating in Medicare and Medicaid programs.

Wyngaarden Promises To Support Increase In NCI Budget For FY 1990

(Continued from page 1)
Cancer Advisory Board meeting last week, brought the bad news: the budget will permit funding only 726 new and competing NCI grants this year, a reduction of 250 in the number funded during the 1988 fiscal year which ended Sept. 30.

Philip Amoruso, NCI associate director for administrative management, offered further realities: only 25 percent of approved competing grants will be funded. In the new NIH scheme for rating grant applications, the payline will be the 21st percentile.

In the year just ended, NCI funded 975 new and competing grants,, 36 percent of those approved. The payline was the 28th percentile.

One positive note, Amoruso noted, is that "percentile funding seems to be working" in that the compression of priority scores seems to have been reversed. The priority score payline in 1988 was 154; in 1989, it is expected to be about 160.

"I can't remember when the percent of competing grants funded dipped as low as 25 percent," NCAB Chairman David Korn commented. John Hartinger, chief of the Financial Management Branch, said he did not believe that it had ever been that low.

Wyngaarden said the dip in grant funding is due to "cyclical" factors, brought on by the necessity to meet commitments to the large number of noncompeting grants which were awarded in the last two years.

The seven percent increase for NCI included AIDS money, which itself went up 37.6 percent in the NCI budget. Deducting that from the total increase cut the amount of additional money for the cancer portion of NCI's budget to $70 million, a five percent increase.

Wyngaarden acknowledged that the overall NIH average increase was seven percent, which he said was about two percent over the increase in cost of living.

The reduction of 250 grants "is a little more severe than most" of the other NIH institutes had to take, Wyngaarden said. "It is a discomfiting reduction. In the 1990 budget, we intend to make sure that the NCI increase is at least the average of NIH. We hope to get about 200 more new and competing grants. You will have the support of Building 1 [NIH headquarters] to halt the bit of a slide in cancer funding."

Board member Enrico Mihich pressed Wyngaarden on the issue.

"I realize you have a tough job establishing priorities for a shrinking pie, particularly that of investigator initiated research," Mihich said. "I wonder what can be done to correct that curve, and make NCI competitive with the other institutes?"

Wyngaarden said that the number of grants funded last year "was unusually high. Also, we had two new institutes to establish last year and likely will have another this year, with their need for start up resources."

The RO1 and PO1 grants which were the focus of the above discussion were not the only mechanisms suffering reductions.

The cancer centers budget of $104.4 million in 1988 was about $15 million less than needed to fund at peer review recommended levels all the new and competing center core grants in the fundable range. That budget will be reduced by another $44,000 in 1989, which means that (a) grants will be negotiated down from recommended levels by 20 to 30 percent, or (b) at least five fundable grants will not get any NCI money.

The squeeze on centers prompted the Assn. of American Cancer Institutes to make some calls on key congressional committee members and their staffs during the organization's annual meeting in Washington in June. They were told that it had been Congress' intent in the FY 1988 appropriations bill to put $118 million into the centers budget for core grants.

The committee staff members said they had been told by Administration officials that NCI preferred to use $14 million of that for other programs. AACI leaders seethed, and asked Congress to take a look at the centers program.

The result is that the Senate has directed NIH to have the National Academy of Science Institute of Medicine investigate NCI's Cancer Centers Program, with emphasis on the organization of the program within NCI and the level of funding needed for a good program. The Senate asked that a report be made at the hearing on NCI's FY 1990 budget, in February or March.

The cooperative groups are taking an even bigger hit this year, dropping $713,000 from the 1988 budget of $59.5 million.

The groups already were being funded at substantially under recommended levels, and that picture will worsen in 1989. Moreover,

that comes at a time when NCI has been leaning on them heavily to increase patient accrual to clinical trials, with new systems in place to help in that regard.

Michael Friedman, director of the Cancer Therapy Evaluation Program which oversees the cooperative groups, told the NCAB that accrual has increased 20 percent since Jan. 1 over last year. He praised the groups' leadership for that achievement, but said that NCI expects even more.

The new program of designating high priority national trials has not had an impact yet on accrual and no additional money has been applied to it, Friedman said.

"One does not have to be perceptive to see a crisis forming," Board member Bernard Fisher said. "There's the decrease in number of ROIs, the national obsession with getting more patients on clinical trials, there are more and more cancer centers, but the money isn't available. It's a delusion to think that we can get all these things worked up, with no money to pay for them."

"Thanks for making my nightmare public," Friedman cracked.

Maryann Roper, NCI deputy director, pointed out that of the total $103 million of additional money for NCI this year, only $7-9 million is "flexible." The rest is either earmarked by Congress (for AIDS and cancer control) or is needed to meet commitments.

Roper brought up the sensitive issue of "FTEs"--full time equivalents, the federal bureaucracy's term for job positions.

In 1984, NIH had 13,500 non-AIDS FTEs and 160 for AIDS. In 1989, NIH will have 12,300 FTEs and 580 for AIDS.

"That's a net deficit of over 1,000 slots," Roper said. "The budget has increased, but the number of FTEs has decreased 5.6 percent."

As has been generally the case in recent years, when there are cuts to be made at NIH, NCI has taken more than its share. The decrease in FTEs at NCI has been over twice that of NIH as a whole--down from 2,344 FTEs in 1984 to 1,984 in 1988, a decrease of 13 percent. NCI has requested 2,094 slots it FY 1989, including 143 for AIDS.

"Our best estimate of the number of bodies working on AIDS [at NCI] is 143," Roper said. "But there are only 53 officially described AIDS slots. The rest are borrowed from cancer.

"We've been given programs to run, and the science is now at a point where we can do a lot of things we couldn't do five years ago. I'm not sure we can keep on borrowing from cancer."

Roper said that Congress, in the reports on the HHS appropriation bill, directed that NIH receive 350 additional slots, with 200 of them designated for AIDS. Bill reports do not have the force of law behind them, although the Executive Branch sometimes tries to follow those directives. On the matter of positions for NIH, however, the Office of Management & Budget more often than not ignores those demands from Congress.

Roper was directing her pitch to NIH rather than OMB. "We have to make NIH aware of our needs," she said. "We have the largest intramural AIDS program on campus. Discovery of the AIDS virus, the first effective blood tests for the virus, and the only effective AIDS drug so far came out of NCI. I hope we will be effective in competing for these slots."

"What is Building 1's justification for a bigger percentage decrease in FTEs for NCI?" Mihich asked. This discussion on FTEs came after Wyngaarden had left the meeting.

"I'm not sure I know," Roper answered.

"Does it mean that cancer no longer is a priority at NIH?" Mihich asked.

Bruce Chabner, director of the Div. of Cancer Treatment, responded to that one. "AIDS is considered higher priority than cancer," he said. "But the problem is positions. There are 500 positions for AIDS allocated to NIH. NCI has 10 percent of them, when the only effective work on AIDS has come out of NCI."

Waxman Introduces Reauthorization Bill

Rep. Henry Waxman (D-CA), chairman of the House Health Subcommittee, introduced his biomedical research reauthorization bill this week, including renewal of the National Cancer Act. The measure did not differ significantly from the bill approved by the Senate.

Rosenberg's Gene Transfer Protocol Approved By rDNA Advisory Group

NIH's Recombinant DNA Advisory Committee has approved a human gene transfer protocol that will genetically mark tumor infiltrating lymphocytes in order to determine why the therapy works for some patients and not others.

NCI Surgery Branch Chief Steven Rosenberg and National Heart, Lung & Blood Institute investigator French Anderson received the go ahead to use the treatment in 10 cancer patients with a life expectancy of no more than 90 days. Rosenberg hopes to begin the new trial by the end of the year.

The protocol, the first human gene transfer experiment ever approved, still must receive approval from the NCI and NHLBI IRBs,NIH Director James Wyngaarden and FDA.

Under the protocol, no more than one third of the total TIL population being grown in the lab would be removed, then incubated with the retroviral vector N2, which contains the neomycin resistant gene. The cells would be combined with the original untreated TIL, and given back to the patient. The marked cells would act as a tracer, and could then be identified and reisolated for testing to determine why TIL immunotherapy is successful in some cases and not in others.

Although some committee members believed that more animal studies should be conducted before granting approval for human trials, the majority felt that the risk/benefit ratio was acceptable given the poor prognosis and short life expectancy of the patients to be tested.

Rosenberg told **The Cancer Letter** last week that early results from his trial of TIL, cytoxan and interleukin-2 had been submitted for publication, which he expects within two months. At last week's meeting of the National Cancer Advisory Board, President's Cancer Panel Chairman Armand Hammer said Rosenberg had told him the combination had produced a significant number of responses, including several complete responses, in kidney cancer patients. Rosenberg would only confirm that there "general responses" to the therapy.

NCAB Approves Organ Systems Plan, Criteria For Starting, Ending Groups

The National Cancer Advisory Board has apaproved a three year plan for the Organ Systems Program developed by NCI staff along with the staff's proposals for initiation and termination criteria for the program's working groups, the final task recommended earlier this year by the Board. Phasing out the external coordinating center and moving its tasks inhouse, and disperal of the program's grant portfolio were the others.

Brian Kimes, chairman of the staff Organ Systems Committee, presented these recommendations to the Board:

Summary and Recommendations

1. Maintain the current complement of seven working groups without initiating any new working groups at this time.

2. Explore opportunities for utilizing the working group concept for other organ systems on an ad hoc basis as long as these activities do not reduce effectiveness of the existing regular working groups.

3. In three years (after one year of transition with the OSCC and two years of operation of the new OSP) NCI staff and the NCAB will evaluate the effectiveness of the OSP and determine what specific changes to make by utilizing the proposed initiation/ termination criteria for organ systems working groups as well as any other information which is available at that time.

Proposed Initiation/Termination Criteria

According to recommendations made by the NCAB, the Organ Systems Program is being reorganized to emphasize a broader role for organ systems working groups in helping NCI evaluate existing activities, trends and resources as well as in continuing to identify important new research opportunities and directions. When this reorganization is completed, the purpose of the OSP will be to serve as an advisory resource for the planning and evaluation of organ systems extramural activities within NCI. The OSP will be responsible for managing multidisciplinary groups (i.e. working groups) which coordinate with and directly benefit the categorical programs of each NCI division. The objective of the program will be to establish advisory networks which respond flexibly, rapidly and comprehensively to new trends and opportunities, which stimulate a close interaction and dialogue between NCI opererational program managers and expert scientists and clinicians, and which promote a greater disease perspective and orientation across all NCI programs.

The new OSP will represent a marked departure operationally and conceptually from past management of the OSP in a number of areas. The program will be given greater focus and visibility within NCI. The outside coordinating center will be discontinued and all operational activities of the OSP will be moved inside NCI to ensure close coordination and interaction of outside advisors with scientific program managers. In addition, all of the grant and contract portfolios will be managed by the categorical programs in each division rather than a small proportion being

managed by OSP staff. Working group agendas and discussion of issues, strategies, priorities and opportunities will blend the perspectives of working groups and NCI programs. Program staffs within the divisions will work to implement recommendations of working groups after thoroughly assessing opportunities together and mutually agreeing on content, priorities and strategy, including the development of concepts for presentation to boards of scientific counselors.

The scope of activities of the working groups will be increased substantially in the areas of planning and evaluation. The working groups will be asked to evaluate trends, strategies, priorities and program plans and directions and then to make recommendations and/or provide advice and interpretations in all of these areas. Working groups will develop with program staff workshops designed to achieve important objectives related to the biology, etiology, diagnosis and detection, treatment and prevention and control of cancers under the purview of the OSP. Working groups will be given the opportunity to provide advice and recommendations on a broader scale in order to identify short term and long term objectives and relate these objectives to the Year 2000 goals.

Currently, the Organ Systems Program manages seven working groups in the areas of large bowel, bladder, breast, prostate, pancreas, upper aerodigestive tract and central nervous system. While these are important cancers, no criteria have ever been developed which provide a guide for NCI and the NCAB to use in selecting which organ systems to emphasize or deemphasize relative to each other within the limited resources available. From both a scientific and management point of view, it is essential to develop criteria for the initiation, continuation and termination of working groups before the new Organ Systems Program becomes fully operational.

General Assumptions for Developing Criteria

There are a number of general assumptions and considerations implicit in the development of an organ systems advisory structure: (1) NCI is responsible for and dedicated to supporting research that will lead to the prevention and cure of all forms of cancer; (2) there is a need to prioritize the research activities in one form of cancer relative to another form based on scientific opportunities and availability of resources; (3) any system used for setting priorities should be consistent and based primarily on the most objective, quantifiable variables available; and (4) the categorical programs of each division will use OSP working groups as well as other advisory alternatives to effectively pursue important organ systems research objectives.

Proposed Initiation/Termination Criteria

Research progress in many cancers would benefit from some kind of working group evaluation and planning patterned after the existing Organ Systems Program. However, the number of different working groups which can be operated effectively at any given time is limited by existing resources. Setting priorities for establishing working groups and deciding how often they should meet must be based on scientific opportunities and the most important needs and responsibilities of NCI. There are a number of key factors to evaluate and balance when determining whether to initiate or terminate organ systems working groups:

1. Personnel and budget resources available for each fiscal year. The availability of resources is important to consider when determining whether to establish new working groups. The cost of convening working groups and funding new research initiatives must be considered and compared with the importance of maintaining existing activites and undertaking other competing new activities.

2. Total dollar resources allocated to basic and applied research. The major responsibility of working groups is to help NCI promote research progess in major forms of cancer that represent significant health problems to the nation. Progress against cancers with a broad base of NCI support in basic and applied areas of research, as opposed to cancers in which little research is under way, is likely to proceed rapidly and successfully without any substantial benefit from multidisciplinary working groups. However, major imbalances between basic and applied research support are important to identify when determining how existing resources are being utilized. Working groups could focus their meetings and workshops and make recommendations for NCI initiatives based on this kind of information.

3. The magnitude or impact of each cancer as judged by current incidence, projected changes in incidence and mortality data. Cancers which represent the most significant health problems to the nation should be emphasized.

4. Extremely low survival rates for cancers

of high or moderate incidence. If a particular form of cancer continues to have a disproportionately low survival rate compared to other cancers, an advisory working group with a multidisciplinary perspective may be an important way to identify research opportunities.

5. The performance of working groups in helping NCI evaluate existing activities, trends and resources as well as in identifying important new scientific opportunities and directions. It is important to evaluate the actual and projected benefits derived from multidisciplinary advisory groups that crosscut most of the major program activities of NCI, and the potential of these advisory groups to provide important recommendations to NCI.

The above factors will serve as criteria when developing periodic plans for the initiation, frequency of continuation and termination of organ specific working groups. Criteria 1,2,3, and 4 are objective and quantifiable and can be applied easily and consistently, but criteria 5, which involves objective as well as subjective elements, will be the most difficult to apply. . . All five criteria will be considered carefully when determining the frequency with which existing working groups are convened. The decision to terminate a working group will be based primarily on a combination of factors 1,2 and 5.

In evaluating the performance of a working group some of the complex factors requiring consideration are:

--Has the working group examined with NCI staff the activities of NCI and made recommendations that have resulted in the institute's reconsideration of existing priorities, program plans and/or resource allocations?

--Has the working group identified important new scientific opportunities that have been reviewed favorably by NCI division boards of scientific counselors and can be pursued effectively within the current technological state of the art?

--Has the working group identified specific resources (e.g., trained investigators, model systems, tissue availability, facilities, specialized equipment) which if provided more effectively by NCI would have a significant impact on research progress?

--Has the working group proposed ways to more effectively promote technology transfer to the bedside (e.g., through multidisciplinary research efforts, multidisciplinary collaborations, cooperatve networks)?

--How effectively has the working group helped NCI identify ways to reach the Year 2000 goals?

--Do the various activities of the working group remain dependent upon a multidisciplinary perspective? If not, can the major research directions be managed successfully within one or more NCI divisions which are organized to address important research opportunities within their respective areas of scientific responsibility?

--Over a period of time, is the productivity of the working group increasing, decreasing or remaining constant?

Operational Implementation of the Initiation/ Termination Criteria

The need for new working groups and the performance of existing groups will be evaluated periodically by staff in the form of a report submitted to the Organ Systems Committee of the NCAB. The report will summarize progress and accomplishments of the different working groups and, utilizing the five factors noted above, will include a plan that recommends initiation, continuation and termination of working groups. The committee would be responsible for annual oversight of the program and would be asked to approve, disapprove or modify the plan proposed by NCI staff. The creation of a new working group or the termination of an existing group would require approval by the NCAB. The committee would present its recommendations for initiation/termination to the NCAB in the form of a report which not only describes its position relative to the staff recommendation but also carefully assesses the effects these changes will have within the context of all working group activities. Thus, no working groups will be terminated or initiated without carefully considering the impact of these actions on the entire Organ Systems Program.

Recompetition Of Big OCC Contract Approved At More Than Double In Size

The National Cancer Advisory Board Committee for Review of the NCI Office of the Director has approved recompetition of two major support contracts, including the Office of Cancer Communication's contract with Prospect Associates which is expected to more than double in size over the next five years.

Prospect Associates has been receiving more than $1.2 million a year for the contract to assist OCC in the design,

development, implementation and evaluation of communication and education programs targeted to the public, patients and health professionals which include patient education, cancer prevention awareness, breast cancer, nutrition, smoking and efforts targeted to minority populations. Programs are delivered to the public through a variety of channels which include mass media, hospitals, worksites, churches and other organizations that reach large segments of the public. Written and audiovisual materials are available for each program. Media campaigns and other specialized media support such as productions of video news releases are developed under this contract. The contract also provides broader marketing and communications support for the office of the director and the divisions when the need arises.

NCI staff estimated that the new contract would start with a total cost of $2.5 million the first year, increase to $3 million in the fifth year, with an estimated total of $13.8 million over the five years.

New programs account for much of the increased cost--early detection awareness, Hispanic cancer awareness, an education effort targeted to cancer survivors, a new network of regional and local patient educators and media efforts to promote NCI nutritional messages.

The new contract also will provide ongoing communications support for PDQ and other ICIC products, continuation and expansion of the clinical trials education program, and health education activities involving the Cancer Information Service as well as special initiatives.

Rose Mary Romano is OCC's project officer for the contract. Prospect's principal investigator is Nancy McCormick-Pickett.

The committee also approved recompetition of the contract with SRA Inc. for the budget execution and formulation support system (BEFSS), which basically provides computer programming support and operation of an existing system in the Financial Management Branch. The current contract will cost slightly less than $1.4 million over five years; the new award is estimated to cost a little more than $1.5 million over five years.

The staff project offers an insight into the NCI budget development process and might be helpful in understanding annual budgets as presented:

The BEFSS allows integrated formulation, operating budget and status of funds reports by division as well as at the NCI total. Databases are constructed from a variety of sources including the Div. of Financial Management accounting tapes, division administrative offices, and grants databases maintained by the Extramural Financial Data Branch. Report writing software uses the consolidated database to write a variety of reports as needed for particular projects. The BEFSS operates principally on the DCRT IBM mainframes with an interface for personal computers to upload selected data and download small report packages. Major report packages are generated from the BEFSS approximately 25 times each year.

The Financial Management Branch is responsible for advising the NCI director on the planning, formulation, presentation and execution of the budget for institute activities. The proposed contract will support further development of the original budget support system, the budget formulation and presentation support system, which began development in 1971 to meet the budget requirements of formulation, presentation and long range fiscal planning. A support contract for resources modeling and analysis was awarded which applied various operational analysis techniques to support the planning and management of the National Cancer Program. With the recent addition of capabilities to read accounting tapes, the BEFSS has expanded to meet the needs of budget execution functions including production of operating budgets and monthly status of funds reports.

Prior to passage of the National Cancer Act in 1971, the NCI budget conformed with the budget activity structure of the other NIH institutes. NCI has since shifted from a budget activity structure based solely on mechanisms to a programmatic structure that more clearly represents the goals and objectives of NCI. Even though the budget was displayed in terms of four research thrusts, three resource development areas, and control activities, Congressional authorization, oversight and appropriations committees requested a more detailed/programmatic breakdown of the research activities. Thus 10 research programs were overlaid on the existing budget statifications. Over time, other displays of the budget have been added. Currently the emphasis on reporting AIDS research has provided impetus to adapt the BEFSS to include AIDS reports by functional categories as well as all the traditional breaks by thrust, program, mechanisms and division.

The NCI budget contains over 20 mechanisms of support including various grant programs, research training and research support contracts, intramural research, research management and support, cancer construction (grants and contracts) and prevention and control (grants, contracts and inhouse). These mechanisms crosswalk to various programs: research activities which are budgeted by four thrust areas; the 10 research programs; resource development including the Cancer Centers Program, research manpower development and cancer construction; and the Cancer Prevention & Control Program.

The developments described above have made the budget structure of NCI complex. To assist NCI in an orderly and meaningful process of decision making, allocation of resources, and establishment of priorities, some form of automated data processing became essential and led to the development of the fiscal projection model which in time was adapted to the budget formulation process. As the needs of the institute changed, the data processing support shifted emphasis from resource modeling and planning to formulation and execution to meet the requirements of the budget formulation and execution process. This shift in emphasis has involved increased attention to streamling operations by such activities as automated interface with existing accounting and grants databases and personal computer spreadsheets for data input.

The National Cancer Act contains two authorities that have a significant impact on the budget process: the formation of the National Cancer Advisory Board,

and the authority to submit a budget request directly to the Office of Management & Budget and the President--the bypass budget. Thus, NCI submits the usual budget requests through administrative channels several times a year--the preliminary, the OMB request, the President's budget and the Congressional justfication--in addition to developing a bypass preliminary budget request and OMB request in consultation with the NCAB.

The report packages produced by the BEFSS are used in the development and presentation of the NCI budget request to the NCAB, the President, and Congress and to develop operating budgets and reports of spending for the NCI administrative officers and financial management staff throughout the execution phase of the budget.

Direct changes of values in the database are used most frequently as NCI develops its budget within funding limits imposed by other governmental bodies; while model options to trend the data are exercised early in the budget cycle when fewer constraints exist and management wishes to begin its planning efforts with a set of basic tables. The resulting reports from either type of change will be reviewed at NCI and data changes will be relayed to the contractor who generates a new set of reports for NCI review. This iterative process, which can range from two to 50 cycles, continues until reviewers are satisfied with the results. At that point, copies of the final reports are output from the model via the high speed printer at the NIH Computer Center. These final reports are producible in current and/or constrant dollars.

For any particular budget submission, broad budget allocations for NCI operating components and for research project grants are established, then divisions provide input to the BEFSS for purposes of consolidating and displaying the budget by the various mechanisms and programs. These displays (tables) are then used by NCI and NCAB in formulating alternative resource allocations and analyzing growth patterns. Tabular development is accomplished with input from NCI divisions through SYMPHONY spreadsheets on personal computers connected via modems to DCRT. The BEFSS then consolidates the input, allocating overhead items which have been separately specified by FMB. The BEFSS has the capability to directly revise dollar values, revise the percent distribution, trend dollar values, trend percent distribution, analyze growth rates in terms of percentages, and automatically balance results. The BEFSS is used by the FMB staff in review of historical budgets, fund analysis, top down budgeting (allocation), bottom up budgeting (aggregation), and combinations of these techniques. The BEFSS automatically converts between constant and current dollars. It has been used in analyzing and displaying the NCI budget reflecting changes in its organizational structure, and shifts in allocations due to policy decisions.

The BEFSS produces a set of approximately 30 budget tables for each major budget submission. The reports are revised as requested by the project officer, the budget officer, the financial manager, or other reviewers such as the NCI director and the NCAB. Efforts in this area are intense but sporadic. The basic set of 30 BEFSS reports is required for each budget formulation submission during the year. Selected sections of the software are operated on an as needed basis as the SATT reports and the five year projections.

The BEFSS is used to develop the five year projections presented each year to the NCAB. The five year projections are fiscal profiles of NCI at various budget levels and are presented in terms of the various budget "cuts" including thrust, research programs, mechanisms, and organizational components of NCI. The projections are based on establishment of the budget year column and certain parameters of rate of growth and percent of total for various programs, thrusts and mechanisms. Tables produced for five year projections include five year fiscal projections of consolidated NCI budget information reflecting resource allocations by mechanisms, research programs, and research thrusts; crosswalks to all three of these areas including an automatic allocation of management and support costs to all research areas, resources areas, and cancer prevention and control; all the above tables include percent change and percent of total for each budget activity; and all the above tables in both constant and current dollars.

For budget execution reports, the database is constructed by reading accounting tapes and by input of operating budget data and other miscellaneous parameters through SYMPHONY spreadsheets. Ten reports are produced on a monthly basis showing the actual obligations for the current month with comparisons to the prior year and to the institute operating budget. Comparisons are provided to both the current month one year ago and to the total obligations for the prior year. The operating budget reports are constructed to show both the current and the prior operating budgets so that an audit trail of changes is produced. At the close of the fiscal year, the final status of funds data becomes the base year for the formulation of the President's budget request.

The BEFSS can produce line graphs, pie charts and bar graphs depicting trends by the NCI budget activity structure and research programs structure. The current system provides a report generator capability so that report content and format are controlled through operating inputs and are tied directly to the budget formulation capability. Most essential reports are produced given extremely short time constraints imposed by budget deadlines.

The Board also approved modification of the existing contract with Information Ventures Inc. for screening, indexing, abstracting and keying of cancer related literature for the Cancer Research Data Bank. The change will add $40-50,000 a year to the baseline costs of $328-379,000 a year for each of the four remaining years of the contract.

The modification will add a new source of cancer information, research project summaries. "This is a natural extension of the continuum of research reporting encompassed by CANCERLIT," the NCI concept statement said. "It is important to cover this information because project summaries are the first indicator of who/what/where in fast developing research areas, and may provide leads for collaboration or consultation years ahead of printed literature such as journal articles and books."

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