

**THE ROCKEFELLER FOUNDATION**  
**ANNUAL REPORT FOR 1964**



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<sup>6</sup> Beginning July 1964.

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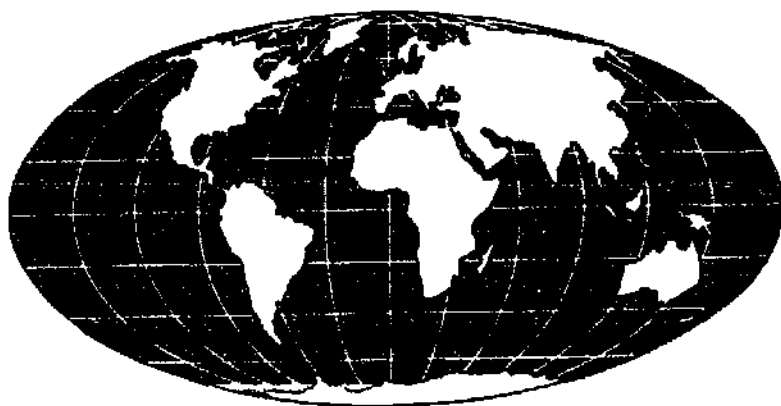
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**THE PRESIDENT'S REVIEW • 1964**





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## PRIVATE PHILANTHROPY IN A CHANGING WORLD

### FOUNDATIONS AND THE PUBLIC INTEREST

PHILANTHROPIC FOUNDATIONS are once again under government scrutiny. Two Congressional inquiries into the operations of tax-exempt foundations were held in the last decade; a third inquiry, under the leadership of Representative Wright Patman, has been in progress for many months.

The general attitude of The Rockefeller Foundation toward these investigations is that which was expressed by one of its Trustees in a recent speech: "It is easy to resent such scrutiny — even to dismiss it as unnecessary. But criticism, if objective and if informed, is good for us who work to serve the public and, in any case, we must expect it. In a free society — in a changing society — every franchise is to be continually re-earned."

There has been evidence, in connection with the current study, that certain foundations are being used by individuals and groups not to advance the public welfare, but to serve private interests. Such a possibility is most serious and deserves careful and objective consideration by public representatives.

In appraising the performance of our foundations, however — and especially in contemplating the possibility of restrictive measures — it is well that we remind ourselves of the nature of this uniquely American institution and of what the people of the United States have received from it in the past and have a right to expect from it in the future.

The foundation as we know it came into its own in the first decade of this century, when a few men of great wealth who were also men of vision and compassion saw that their wealth had grown far beyond their own needs, and could be turned to the welfare of mankind. It should be recalled that this highly civilized idea took form before there were any income or estate taxes at all. Men like John D. Rockefeller and Andrew Carnegie were here concerned with the condition of mankind, not with the avoidance of tax payments. As a result, Carnegie organizations built thousands of free libraries and pioneered retirement benefits for teachers. The Rockefeller Foundation established the pattern of modern public health practices and conducted worldwide campaigns against mass diseases and hunger; today both The Rockefeller Foundation and the Carnegie Corporation continue in the forefront of private effort for public benefit. There can be little doubt that this same impulse guided the formation of subsequent philanthropies, even though many important ones were formed after the income tax legislation of 1913. Among these have been the W. K. Kellogg Foundation, with its great contributions to the fields of medicine, nursing, rural health and nutrition, and to American education generally; the John Simon Guggenheim Memorial Foundation, which for almost forty years has provided fellowships to young scholars, scientists, writers, and artists; the Julius Rosenwald Fund, which has helped education in the rural South and has worked to improve race relations; the Twentieth Century Fund, with its major contributions to economic and social research; the Milbank Memorial Fund, long active in public health, especially population research and nutrition; the Russell Sage Foundation, a prime mover in the professionalization of welfare and philanthropic activities; the Alfred P. Sloan Foundation, active in medicine, mathematics, and the physical and social sciences; the great worldwide activities of the Ford Foundation, concentrated especially on improvements within America's educational systems, and economic and social progress abroad; and many others.

The achievements of America's tax-exempt foundations, reaching back collectively more than a half century, have established beyond any doubt the soundness of the idea that private wealth can be expended effectively for the public welfare through programs which are privately conceived and administered.

A second and complementary idea has also been confirmed: the public interest is well served if incentives to the establishment of these philanthropies include tax exemptions for such organizations as well as tax reductions for their contributors. As the number of privately endowed foundations has risen over the decades of this century, so have private programs devoted to public advancement. And as time has passed, these programs have become increasingly effective.

At the same time, it is clear that in our time of rapid social change, philanthropies must be prepared to meet the changing requirements of society. There must be constant sensitivity in our foundations to the problems of contemporary society. And there must be internal standards of performance so that the effectiveness of foundation programs is always at its highest.

Equally important, there must be public guarantees that the privilege of tax exemption is not abused by anyone who would exploit the foundation idea for private ends. Should any part of this extraordinary instrument for social progress fall into the hands of cynics who would use it for self-serving purposes, the instrument itself is jeopardized.

The Rockefeller Foundation has welcomed the Treasury Department's recently concluded study of private foundations; its recommendations deserve careful consideration. Furthermore, by revising the information-return forms filed by foundations so as to call for fuller disclosure with respect to foundation operations and by starting a program of more frequent and searching audits of these returns, the Treasury has taken steps which should go far to deter misconduct and to expose it when it occurs. For it seems to be often forgotten that under the law as it now stands a foundation is not entitled to tax exemption unless it is operated "*exclusively*" for authorized tax-exempt purposes. Most of the conduct which has come under attack in the current investigation fails to measure up to this standard. Stricter enforcement of the present law may remove or reduce the need for stricter laws. If additional legislative controls are to be considered to

protect the public interest, we urge the lawmakers not to overlook the even greater public interest in maintaining rather than restricting the independence of the vast majority of foundations which seek only to advance the general welfare, and in encouraging rather than stifling the philanthropic impulse to which we owe so much.

The fact is that much remains to be done by the privately endowed, general-purpose foundation. And this ingenious social instrument must not be unnecessarily inhibited as it seeks to apply its unique resources to human need.

It is true that our private foundations represent only a small fraction of the massive welfare resources of the American people and their government. In the year 1961, for example, all the privately endowed foundations in the country disbursed only about one penny of every welfare dollar spent in this country. But we have learned that this comparatively tiny fraction of the total American welfare expenditure has an effectiveness which is greatly disproportionate to its size. The philanthropic dollar which is spent by the experienced and imaginative private servants of the public interest who are working in the foundations can trigger great movements forward in the interest of mankind.

But if they are to perform this vital function of catalyst in human progress, foundations plainly need the understanding and the support of the society they aim to serve. They must have the flexibility of broadly framed charters which enable them to move promptly to the seizure of opportunities across the whole range of human need. They must be able to risk failure against the possibility of opening new vistas of success. They must not be limited in size, for here as with other institutions of social action there is need for the large as well as for the small. They must retain the freedom to move geographically to the point of need — including to places abroad. We have learned, perhaps bitterly, that attending to human problems in a land we hardly know today can spare the tragedy of greatly magnified problems touching us closely tomorrow.

And just as a founder should not be denied the right to determine the amount of his endowment, so also he should not be denied the right to endow with longevity. The gradual evolution of the foundation as a tool of progress during this century has resulted in the accumulation of a totally new reserve of experience devoted to the service of



mankind. But this has taken time. The techniques of organized philanthropy are today far more sophisticated and effective than those of a half century ago, and they are far less so than they will be a half century from now. If the life of The Rockefeller Foundation had been limited at the outset and if its mission had been restricted to an attack on epidemic diseases, as an example, progress would have been made, but not progress enough. Mankind would have lost the incalculable benefits of the Foundation's programs in aid to education, agricultural development, population stabilization, and assistance to the arts, among many others.

### “THE SUMMIT OF CHARITY'S GOLDEN LADDER”

Americans, perhaps more than any other people, have cherished the right to contribute their resources and energies for the benefit of others as they see fit: philanthropy has clearly become an indispensable part of our society. As our nation has grown and prospered and as our society has become more complex, we have enlarged the dimensions of our giving and improved the organization of our philanthropies. Every citizen has the right to give according to his own inclinations to causes in which he believes.

This outpouring of private resources for the public good has resulted in many and varied philanthropic and charitable organizations, until today they are a critically important force — but in terms of total unmet need still a modest one — on the human scene. Some have questioned this proliferation of private organizations and agencies. A few have gone so far as to suggest that all such funds should be channeled through government agencies. There is little logic in this position and certainly no real understanding of the meaning of giving. The public verdict has been repeatedly rendered by the millions of citizens who through their contributions regularly share their resources with others. It is their money and after bearing their share of the cost of government, they have both the moral and legal right to respond as they choose.

Many of our most distinguished citizens enthusiastically serve on the boards of philanthropic and charitable institutions and work zealously in their behalf. The late Herbert Hoover, who was throughout

his life active in humanitarian causes, paid tribute to private philanthropy when he said:

. . . The essence of our self-government lies in the self-government outside political government. The fabric of American life is woven around our tens of thousands of voluntary associations . . . and . . . charitable institutions. That is the very nature of American life. . . . If these voluntary activities were to be absorbed by government agencies, this civilization would be over. Something neither free nor noble would take its place.

Charity and philanthropy assume many forms. All may be well motivated but there are definite gradations of effectiveness and even of merit. Long ago, Maimonides, the 12th century Jewish philosopher, defined eight degrees of charity. His eighth degree was in effect a statement of the principle of private philanthropy: that the highest and most meritorious form of charity is to “*anticipate* it by preventing the need for it,” so that our fellow man would “not be forced to the dreadful alternative of asking for it.” This Maimonides called the “summit of charity’s golden ladder.”

In modern terms, Maimonides’ “summit” is reached by searching for the root causes of human ills and seeking to eliminate them rather than to ameliorate their symptoms. This is *intelligent* philanthropy, and many feel that it has reached its fullest expression in the modern private foundation.

Private foundations have sought for decades to encourage individual scholarship; to facilitate communication among educators, scholars, scientists, leaders in government, and others with key responsibilities; to support basic research and its application; to aid education in a variety of ways; to promote more adequate support for the social sciences and humanities as areas of great import; to help remove root causes of disease, hunger, and malnutrition; and in many other ways to advance the welfare of mankind. Often they were among the pioneers in these fields.

It is not suggested that the modern achievements of private philanthropic enterprise should be credited solely to foundations. Although there is no doubt that the senior members of the foundation field and their distinguished younger colleagues have major accomplishments to their credit, it must be remembered that the most important function of foundations is to point the way and to establish guidelines.

To fulfill this function a foundation must establish its program. It is the responsibility of the board of trustees to define the areas in which a foundation will function and, in turn, the responsibility of its executive officers to structure its programs. It is the officers — men of professional training, competence, and experience — who continually face the sensitive task of determining which projects show greatest promise of benefiting humanity; who shoulder the responsibility of selecting from among many proposals of great merit those few to which available funds may be applied.

Unhappily, many meritorious proposals must be declined as falling outside the limits of a foundation's objectives. This is often as difficult to communicate as is the fact that foundation grants must be entrepreneurial in the sense that they should help initiate and develop projects which can realistically be expected to become self-supporting, or to receive public support by reason of demonstrated merit. To give a little help to as many people as possible would be kind, comforting, and perhaps popular, as would general support of worthy projects long after start-up needs had been met. But neither would meet the purpose for which private foundations exist.

### *A Consortium of Effort*

Long ago, when it became evident that neither the church nor private philanthropies could meet the many needs of a growing population, municipal, state, and federal agencies began to take increasing responsibility for its welfare. This was a slow process; the United States Department of Health, Education, and Welfare was established only in 1953; the National Science Foundation, modeled after private foundations, was founded in 1950 and the National Institutes of Health officially established only in 1948.

Far from resisting the relatively recent introduction of government resources and programs, vastly greater than those of private agencies, foundations have foreseen and encouraged such transfer of responsibility. Foundations are aware, as their record clearly shows, that their groundbreaking work and pilot projects can be fully meaningful and become widely beneficial only if their values are recognized and their procedures adopted and extended by public agencies. And foundations are also aware that a program adopted by a public agency will free

foundation funds for a new venture which, if successful, will itself be so adopted some day.

Today a number of foundations cooperate with governmental and international agencies here and abroad in operating programs affecting the well-being of people in many nations where basic needs in food supply, health, and education are still acute. This consortium of effort, often involving United Nations agencies, international development banks, the United States Agency for International Development, local institutions of research and education, and private foundations, has made possible more rapid progress than any single agency, working alone, could achieve.

## FOUNDATIONS AND THE FUTURE

There are still many trails yet unblazed — new vistas for constructive giving. We live in an age of seemingly overwhelming problems — the products of the past in newer, larger, and more complex form. Few if any have burst upon an unsuspecting world; rather, they have become impossible to ignore.

Other than total war, the greatest threat we face is the impact of unrestrained population increase upon the world's resources and social structure. Hindsight tells us that efforts to improve sanitation, disease control, food production, and the like should from the beginning have been carried on with an awareness of their impact on population increase and in conjunction with measures toward its stabilization. Although there is the valid excuse that public apathy, and antagonism arising from religious or ethical scruples, have inhibited such action, we realize today that the greater wisdom would have been to begin the battle of population stabilization long ago.

Today, even though apathy and opposition are diminishing and despite a great deal of expressed concern, progress almost everywhere is still too slow to avert the danger of suffocation by numbers.

Some private foundations have accepted the challenge and are doing all in their power to work toward the stabilization of population. Because of the nature and sensitivity of the problem, foundations are in a special position to give support on several fronts, including demographic research, studies on the physiology of reproduction, and direct

action projects where the need is greatest. They can also promote intensive discussion and social and economic research focused on the problems of population and their solution.

As we work toward population stabilization, we must continue our efforts to combat hunger, disease, and ignorance which condemn so many millions to degradation and misery and tax a multitude of others for their support. Here again private philanthropy can and does work toward the establishment and development of sound programs, adaptable to local conditions and resources, which in combination with efforts to stabilize population offer hope for a brighter future for all.

The stagnating effect of educational disadvantage is clearer today than ever before. Newer nations and resurgent ancient states are painfully aware how difficult an obstacle they face in the lack of people trained for the many forms of leadership and responsibility essential to national progress. The need is so critical and vast that massive and coordinated effort is required to achieve even a moderate advance. Foundations have been among the first to recognize this and to act, and today private and public organizations, working together, are making encouraging progress.

In this country, despite great achievements on many fronts, we have still to solve grave current problems and to overcome some earlier failures. Most critical is the struggle for equal rights and opportunity. In this area, some foundations have a long, if not exclusive, record of concern and action; but gains made over the years have been slow and inadequate. Private philanthropy would seem by definition to have a stake in helping to resolve long-standing inequalities in imaginative and significant ways.

The quality of our society is a matter of interest to all. Even today, support from private sources for the performing arts and for outstandingly creative people is hard to come by. Yet it is from these sources that we can expect stimulating contributions to the tone and substance of our times. Furthermore there is substantial evidence that, given the opportunity, large numbers of citizens, especially young people, would like to have greater experience in the creative and performing arts as participants or spectators. This is a fertile field for experimentation and assistance, and one in which the interest and involvement of a number of foundations are growing.

There are innumerable other ways and fields in which private foundations can contribute to the well-being of mankind. A few examples might include further research in the new needs of education; greater encouragement of the humanities; economic research and its present application to disadvantaged nations; confrontation of the problems of the arid lands of the world, which are coming under greater population pressure; participation in basic studies of water resources; aid to research on the increasingly critical problem of air and water pollution; efforts to reduce or eliminate certain epidemic diseases of domestic animals in the interest of increased protein production; continuing studies and progress in the area of human nutrition; greater effort to understand and utilize marine, brackish- and fresh-water resources for sustained food supplies. Other subjects which lend themselves to study under the auspices of private philanthropy are: international relations; modern diplomacy; political and constitutional institutions of underdeveloped areas; economic and political history; the causes of war, and methods of disarmament; and the behavioral sciences as they relate to current social ills.

There are many more; no single foundation can tackle more than a few. But fortunately the number and diversity of foundations' program interests enable them to range widely, particularly in areas in which other support is hard to come by. Characterized by imagination, flexibility, and the willingness to pioneer and venture in good cause, foundations are destined to serve the objectives of free society in ever-growing dimensions.

## TOWARD THE CONQUEST OF HUNGER

THE MID-TWENTIETH CENTURY finds more than half of the world's population living as precariously on the edge of hunger as did their ancestors. At the same time, populations are increasing relentlessly, mainly in those areas where periodic famines and chronic malnutrition are prevalent even now. Great strides toward the conquest of hunger cannot be made without parallel efforts to stabilize runaway populations, a goal which today is only barely foreseeable. Meanwhile the most realistic hope of feeding growing populations lies in improving the conventional methods of producing basic crops under widely varying conditions. In theory this is possible: the agricultural sciences are today so well developed that their systematic application could very substantially raise nutritional levels the world over.

Twenty years of experience with technical assistance have made agricultural specialists highly aware of the interwoven complexities involved in trying to change the traditional practices of farmers, even in small ways. Nevertheless, it is in helping to construct and improve the scientific base for agricultural progress — the development of research institutes, the training of scientific manpower, and the persuasive transmittal of proven methods and materials to the farmer — that private organizations like The Rockefeller Foundation can most usefully serve agriculture in emerging countries.

However, even if the means were at hand to quickly disseminate new methods and materials and to secure their widespread acceptance, there are formidable barriers still to be overcome before harvests sufficient to nourish millions of people can be produced.

Progress cannot come from within agriculture alone. If substantial advances are to be made, it is necessary for local governments to systematically plan and encourage the development of agriculture's essential substructure within their overall economies. Fertilizer plants, irrigation systems, crop-protecting chemical producers, agricultural credit systems, farm-to-market transportation, some or all of these are

as necessary toward the conquest of hunger as are trained manpower, research institutions, and farmers willing to accept innovations.

The Rockefeller Foundation has since the early 1940's been evolving an international network of agricultural programs and projects in strategically located developing countries. Through training and research, and their extension to and application in the field, it has been possible to increase the quantity and quality of basic food crops. The demonstrable success of this complex effort, due in large part to the presence of staff specialists working with local governments, now allows the Foundation to broaden the scope of its program toward the conquest of hunger.

Research and its international application will continue strongly, but the Foundation will place additional emphasis on projects in fields closely linked to agricultural productivity. It will encourage economic studies designed to help establish the place of agricultural programs, problems, and priorities within national economies. It will encourage experimental investigations of food production from nonconventional sources — research on fish cultivation in brackish-water ponds, for example. It will seek better utilization of tropical and arid lands, and better understanding of the socio-economic barriers to more efficient utilization of human and natural resources. In all of these challenging areas, it will make additional efforts to identify outstanding young scientists and to support them in field programs and leading graduate institutions.

#### INTERNATIONAL RESEARCH INSTITUTES

Few developing countries can devote the funds or have the scientists needed for agricultural research at a truly basic level; yet, ironically, continued agricultural advance is impossible without it. The results of past research can be applied just so far; inevitably new problems are encountered which present knowledge cannot solve.

The quick mobilization of the scientific skills required to solve new problems is possible only in research centers planned, equipped, and staffed for the purpose. Even though individual emerging countries cannot afford such centers, they should be able to call on the services of basic research to backstop their agricultural improvement programs.





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The International Rice Research Institute, in the Philippines, now offers a course for information specialists who later will train extension agents to work with rice growers on the adoption of improved seeds and cultivation practices. Some of the first group in the 12-month course are shown "learning by doing" at Los Baños. The institute is a joint project of the Ford and Rockefeller Foundations, with the cooperation of the University of the Philippines.

One solution — the one which The Rockefeller Foundation is encouraging — is to establish regional research centers of the highest excellence, strategically located to deal in depth with a particular crop or set of problems. The International Rice Research Institute in the Philippines is the first of a number which the Foundation is helping to sponsor; others are dedicated to the improvement of corn and wheat, to tropical crops, and to arid-land agriculture. The substantial achievements of the rice institute in the brief period since its inauguration in 1962 are good omens for the soundness of the regional research center plan.

### *Rice*

The International Rice Research Institute is located about forty miles east of Manila in Los Baños, adjacent to the campus of the College of Agriculture of the University of the Philippines. Its \$7.5 million plant was financed by the Ford Foundation; its director and eight of its investigators are members of the staff of The Rockefeller Foundation; the two foundations share its operating costs. Twenty senior scientists conduct the research and supervise the training of about 65 scholars and fellows annually. Through an arrangement with the College of Agriculture, a number of the scholars and fellows take graduate courses at the college and do their thesis research at the institute. Institute staff have academic rank at the college.

The primary objective of the institute is to aid Far Eastern countries in closing the gap between the demand for rice and the amount now produced. For the present, chief concentration is on breeding high-yielding hybrids that will respond positively to nitrogenous fertilizers. They will have short, stiff stems which will not fall over or “lodge,” and will be early maturing, unaffected by variations in day length, and resistant to the more important pests and diseases like the stem borer and blast. In addition, they will have the cooking characteristics and flavor preferred by the people of Southeast Asia. The hybrids were in fourth and fifth generation tests at the end of 1964; they will probably be released in about two years.

Rice varieties which mature in about 110 days, instead of 190 days, and which can be planted and harvested twice or even three times a year, could lead to much more efficient use of land, water, and labor in most of the tropical rice-producing areas. Double- and triple-cropping

account for some of the remarkable agricultural advances made recently in Taiwan, among other countries.

As the new varieties come into general use, the institute will need to concern itself with such problems as certified seed production and with training extension workers to educate farmers in the management practices needed for the higher-yielding types. In tooling up for this eventuality, the institute is in active collaboration with rice specialists in a number of neighboring areas and is planning to set up five subcenters in as many countries. The Ford and Rockefeller Foundations will finance the staffing of the subcenters.

### *Corn and Wheat*

Corn and wheat, which with rice are the cereals that feed the world, have, of course, been intensively studied in the United States, Canada, and elsewhere, but even so, new opportunities continually present themselves for improving the methods and materials which emerging countries can use to increase their production of these basic food crops. To study systematically the production problems of corn and wheat in the tropics and semitropics and to train specialists to deal with them are the objectives of the International Center for Corn and Wheat Improvement, established in October, 1963, through an agreement signed by the president of Mexico and the president of The Rockefeller Foundation.

The corn and wheat center, like the rice research institute, operates in close conjunction with a school — in this instance, the Graduate School of the National School of Agriculture in Chapingo, near Mexico City; in fact, it will occupy quarters on the campus when buildings now under construction are completed. Work on both crops is also conducted in collaboration with the Mexican National Institute of Agricultural Research; the institute provides experiment stations and laboratories and contributes the services of certain staff scientists for research projects and for the training of corn and wheat specialists from other countries. In essence, the center is an “open door” through which Mexico can share its great advances in the improvement of maize and wheat production with other countries where conditions and problems are similar.

Fundamental research in the maize project is concentrated on the



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Graduate students at the National School of Agriculture in Mexico listen to a discussion of the genetic variations among Mexican races of maize. The school is in Chapingo, where new facilities are being constructed for coordinated attention to agricultural research, teaching, and extension. Several United States and international agencies will assist in the financing of the Chapingo center.

exploration of the genetic potentials of the more than 200 races of corn recognized in Latin America, represented by more than 15,000 samples collected, chiefly through Foundation efforts in collaboration with the National Academy of Sciences—National Research Council, in 21 years of work with corn in the area. This “raw” genetic material is already proving valuable around the world; 37 countries and 21 states in the United States requested and were sent experimental lots in 1963-1964.

Studies of the usefulness of the materials are coordinated in Central America through a six-country improvement program headquartered in Nicaragua; in northern South America by the Foundation's unit in Colombia; in Brazil by a cooperative program at Piracicaba; in Peru by a cooperative program with the Agrarian University at La Molina; in Argentina by a cooperative project at Pergamino; in West Africa by a program in Nigeria; in East Africa by a project in Kenya; and in Southeast Asia by a Foundation group in India. Various outstanding germ plasm complexes have already been isolated which are widely adapted and extremely useful as basic breeding materials. In most underdeveloped countries throughout the tropics this material is permitting the breeders to start their breeding programs at a much higher yield level than is possible with their local varieties. In many cases these elite selections are much higher-yielding than native materials and can be immediately distributed to farmers without further improvement. Genetic and statistical studies in quantitative gene action and breeding methodology are conducted cooperatively with investigators in the areas indicated above and at the universities of Wisconsin, Nebraska, Kentucky, and North Carolina. Studies are also under way in use of chemical fertilizers and other factors related to a greater and more efficient production of maize under different moisture regimes.

The improvement of wheat through breeding and selection is both time-consuming and expensive; for instance, from 25,000 to 50,000 segregates resulting from crosses may have to be planted and evaluated in a single season in even a moderately large program. The effort must have continuity, for wheat's principal enemy, stem rust, evolves new races and destroys varieties which originally were resistant. Most developing countries have neither the resources nor the scientists for detailed wheat breeding programs; it is wiser for them to borrow

varieties and segregating materials from active breeding centers and to select those which best meet their requirements.

The wheat program of the Mexican Ministry of Agriculture, in which Rockefeller Foundation staff have participated for two decades, is one of the largest and most successful in the world. In Mexico, and in similar cooperative projects in Colombia and Chile, enormous resources of genetic materials of known resistance and adaptation have been built up. The main objective of the international wheat improvement project, headquartered in Mexico, is to facilitate the use of this and other superior germ plasm by other countries, in combination with good cultivation practices.

Several countries have bought commercial quantities of seed (in one and two ton lots) for direct use. In most of them, however, standard sets of seed samples prepared in Mexico are planted for observation; those which prove best under local conditions can then be safely selected for multiplication. Two different sets of samples have been prepared and distributed for three successive years; one, for Western Hemisphere conditions, is grown in 12 American countries; another, for Middle East conditions, is grown in 21 locations from Ethiopia to Pakistan. The Mexican, Colombian, and Chilean varieties in the sets have consistently shown the highest yields in these global trials; to increase still further their range of adaptation is a guiding factor in the breeding work.

To use the materials properly, training is essential. Instruction in the practical aspects of wheat improvement — at the postdoctoral level — is a regular activity of the international wheat project. Twenty-one scientists from Latin America and thirty from the Middle East, all with professional degrees, have now learned that the arts of agronomy, soil science, irrigation, plant protection, and cereal chemistry as well as of plant breeding must be managed in combination if wheat improvement is to have any real impact on a nation's production. These same scientists are the ones who in their own countries use the experimental seed sent from Mexico. In recent months plans have been matured for increasing the coordination of their efforts through conferences and through more frequent visits from staff members of the Mexican and Colombian programs.



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In recent years 21 wheat specialists from Latin America and 30 from the Middle East have come to Mexico to study practical wheat improvement. Here Dr. Norman E. Borlaug, director of the Rockefeller Foundation international wheat program, guides a group of postgraduate fellows in wheat hybridization methods.

## *Arid Lands*

While the main reliance for future food production must continue to be the adequately watered arable lands now in use, population pressures are forcing attention to the better use of other areas which receive too much rainfall or not enough.

About one-third of the earth's surface is classified as arid or semi-arid, ranging from deserts which never receive rain to marginal regions which have it occasionally but not regularly. The oldest solutions to the problems of impounding and supplying water are catch-basin systems which gather the runoff of occasional downpours, and irrigation; both are very expensive. Other approaches are the selection and breeding of drought-resistant plants which man can use directly, or indirectly by grazing animals on them, and better land and plant management.

A great deal of scientific attention is presently being devoted to arid lands and numerous research projects are in progress. Most of these naturally deal with immediate issues in particular regions. A comprehensive approach will be attempted by the University of California, which is establishing a Dry Lands Research Institute at its Riverside campus. The institute will stimulate research of general applicability and, by means of a well-rounded curriculum, train experts in all the disciplines that can be helpful. Particular efforts will be made to aid less developed countries where arid lands are important; six postdoctoral fellows and 15 graduate students from such countries will be recruited for the opening of the institute's work. The Rockefeller Foundation made a grant in 1964 to help defray the costs of planning and organizing the institute.

## *The Tropics*

At the other end of the scale, in the wet tropics, the difficulty is to bring land into productive use without allowing overabundant rains to ruin the soil by leaching out its nutritive and organic components. Already too much tropical land has been permanently destroyed by thoughtless cutting of its jungle cover to permit similar mistakes in the future. Several international organizations, including The Rockefeller Foundation, are looking into the situation with a view to setting up a tropical agriculture research institute, probably to be located in West





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A Colombian plant pathologist examines potato seedlings in a test for resistance to late blight, the chief disease of this crop. Plant scientists in Latin America, Europe, and the United States cooperate on potato improvement with the Foundation-sponsored project headquartered in Mexico.

Africa, which will coordinate scientific investigations of the problem and train specialists in handling them.

## NUTRITION

Much of the value of increased crop yields is lost if the quality of the grain, especially the protein content, is allowed to deteriorate. The percentage of protein in cereals like corn, rice, and wheat depends on a number of variables, some genetic and some caused by such factors as soil fertility. The plant breeder, in his preoccupation with yield and disease resistance, may overlook the protein value of his new varieties. The Rockefeller Foundation has guarded against this hazard in its crop improvement programs by submitting new varieties regularly to nutritional assay. The National Institute of Nutrition in Mexico and the Institute of Nutrition of Central America and Panama, in Guatemala, have cooperated with Foundation scientists by making such evaluations, and the International Rice Research Institute has its own facilities for this work.

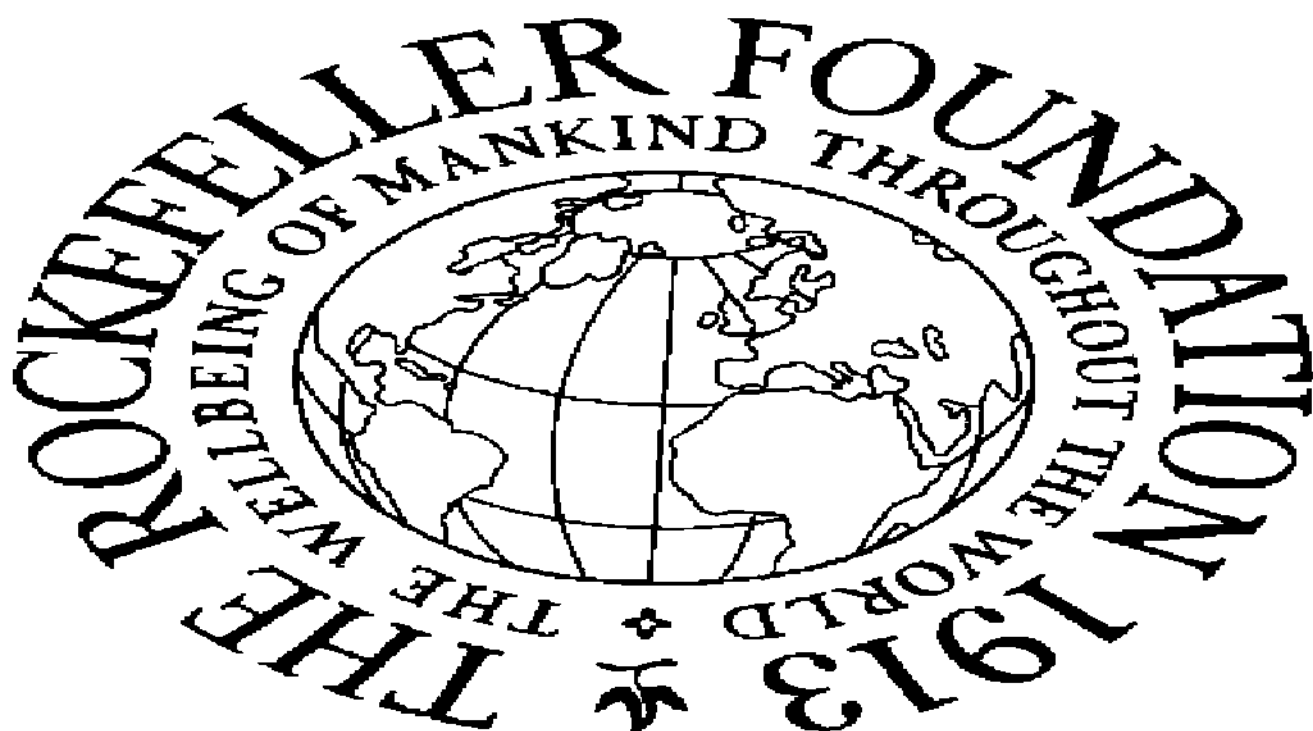
While the protein content of the energy foods such as corn, wheat, rice, and potatoes is important, overcoming the "protein gap" depends on vast increases in the amounts of high-quality proteins available in ordinary diets. Traditionally the better proteins have come from animal sources — milk, eggs, fish, and meat — but these are in very short supply in most emerging countries and any substantial increase in their production is probably for the far distant future. In the meantime nutritionists are searching for vegetative sources of the essential amino acids not contained in the usual energy foods. The Foundation has contributed financially to a number of these projects as well as to the biochemical and medical researches of various nutrition laboratories.

In 1964, for example, a grant was made to the nutrition laboratory in Mexico mentioned earlier, the National Institute of Nutrition, for research on the biochemical derangements and adjustments which occur in chronic protein malnutrition. Two grants were made in India: one is assisting the Nutrition Research Laboratories in Hyderabad in studies on the nutritional qualities of local foods and on the biochemical processes associated with certain nutritional diseases such as pellagra. The other went to Christian Medical College in Vellore, a private institution, which is developing important projects on the improvement



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Nutrition research in India: *above*, children try a newly developed protein concentrate in the form of a sweet, at a field station of the Christian Medical College, Vellore. *Below*, staff members of the Nutrition Research Laboratories, Hyderabad, secure data for determining baselines of physiological status during pregnancy. Foundation grants in support of both institutions were made in 1964.



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of the nutrition of infants and children. A United States organization, the Institute of Nutrition Sciences of Columbia University, is cooperating in the projects of the Vellore medical college. In previous years financial support has been given to investigations of protein deficiency and to searches for low-cost, protein-rich foods by the National Research Council in Washington, D.C., the London School of Hygiene and Tropical Medicine in England, and the Institute of Nutrition of Central America and Panama. Results in the form of protein supplements from plant sources are already of great value; "Incaparina," formulated by the Central American institute, shows real promise of becoming an important weapon against malnutrition in children.

#### APPLIED RESEARCH, EXTENSION, AND EDUCATION

That The Rockefeller Foundation can devote an increasing proportion of its budget for the agricultural sciences to basic research and to the international dissemination of its benefits is due in large measure to the changing pattern of the Foundation's efforts in three Latin American countries and in India. In these countries former programs were directed to demonstrations of the value of scientific research applied to crop improvement, and to the training of young men and women for professional careers in agriculture. As programs succeeded, the need for them grew less: local leaders, fully qualified and ready for the task, could take over responsibility for dealing with the factors that limit production in their own countries.

#### *Mexico*

In Mexico, where the Foundation began its agricultural work in 1943, food plant research since 1961 has been well organized and increasingly well financed through the National Institute of Agricultural Research, a division of the federal Ministry of Agriculture and staffed and administered by Mexican scientists. Research on domestic animals is similarly unified in the National Center for Livestock Research, temporarily directed by a Foundation staff member. Many of the members of both organizations are among the 600 young men and women who had in-service training in the Foundation's program,

the 156 who took M.S. degrees on Foundation scholarships, and the 53 who earned doctorates on Foundation fellowships.

The change in program direction resulted from the conviction that research to apply known principles to local conditions, extension to educate farmers in new methods, and formal agricultural education are all functions which require strong institutional bases in each country and that the most effective contribution outsiders can make is to help with the creation and strengthening of such institutions.

Foundation staff and funds in Mexico are now assisting the further evolution of research, extension, and education toward greater integration. In part this objective is being accomplished through bringing the headquarters of the various agencies physically together at Chapingo, a village about 22 miles east of Mexico City. Chapingo has long been the home of the undergraduate division of the National School of Agriculture and more recently of its Graduate School. Next to the campus are the plots and laboratories of El Horno, the center of the federal experiment station system. An extensive building program is now in progress at Chapingo which, besides new facilities for the schools, will provide headquarters for the national research institute, the extension service, and as already mentioned, the international corn and wheat center. Several United States and international agencies are supplying funds totaling \$8 million for the new Chapingo center; the Foundation's contributions are earmarked for the Graduate School, the research institute, and the maize-wheat project.

### *Colombia*

In Colombia, where the Foundation has maintained a staff since 1950, the demonstration of the value of scientific agriculture culminated in 1962 with the establishment of a federal agency which has responsibility not only for research but also for certain aspects of undergraduate and graduate agricultural education. Called the Colombian Institute of Agriculture, the new agency enjoys excellent facilities at the Tibaitatá experiment station near Bogotá, and in an extensive network of regional stations representing the country's varied climatic and agricultural areas. The Foundation is giving financial support to part of the institute's work, and is continuing its scholarship and fellowship program through which 31 Colombians have earned the M.S. degree and 11 have

La Campana experimental ranch in Chihuahua, Mexico, is a station of the National Center for Livestock Research, which coordinates all research in the animal sciences under federal government auspices. Studies at La Campana include arid land range management and forage crops, animal nutrition, and cattle breeding. The center directs work on all the economically important food animals to increase Mexico's supply of animal proteins. A Rockefeller Foundation staff member is currently serving as director of the center on a temporary basis.



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gained doctorates. Foundation staff members are active in the cooperative improvement projects for food crops and livestock. Colombia also serves as the North Andean headquarters for the Foundation's international projects on corn, wheat, and potato improvement, which have their major headquarters in Mexico.

### *Chile*

In Chile official and public recognition of the urgency of the agricultural problems of the country has led to the formation of an autonomous research organization to strengthen the base for increased production. Chile does not grow enough food for her population; imports have been running at about \$60 million a year and per capita consumption, especially of proteins, is low. The new Agricultural Research Institute, activated in July, 1964, was formed by five participating organizations: the Ministry of Agriculture, the Chilean Development Corporation, the University of Chile, the Catholic University, and the University of Concepción, each of which is represented on the board of directors. The institute is administered by a three-man executive committee, of which the director of The Rockefeller Foundation's Chilean program is a member.

The establishment of the institute coincided with the completion of two excellent experiment stations, equipped for both plant and animal investigations; one is at the center of the country, near Santiago; the other is in the south, at Temuco. Good substations supplement the work of the two main centers. Rockefeller Foundation staff members have been in Chile since 1955 working on wheat improvement, forage and pasture crops, animal nutrition, and agricultural engineering. Each year students from the cooperating universities do practical field research on thesis problems by participating in the work of the program; in 1963-1964 some 44 students took this training. Twenty-eight young Chileans have earned M.S. degrees abroad and returned to Chile with the aid of Foundation scholarships, six have completed the Ph.D. degree, and at the end of 1964, eight were studying abroad.

### *India*

India's desperate food shortage, which grew especially acute in 1964, is directing much official attention to strengthening national and



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Disease and poor nutrition are the chief limiting factors in animal production in Colombia, as in many other countries. The Rockefeller Foundation's cooperative agricultural program in Colombia gives major attention to these and other factors involved in the improvement of beef and dairy cattle, poultry, sheep, and swine, with the aim of upgrading both the quantity and quality of proteins available in the Colombian diet. These sheep are being treated in a study of internal parasites at the central experiment station, Tibaitatá.

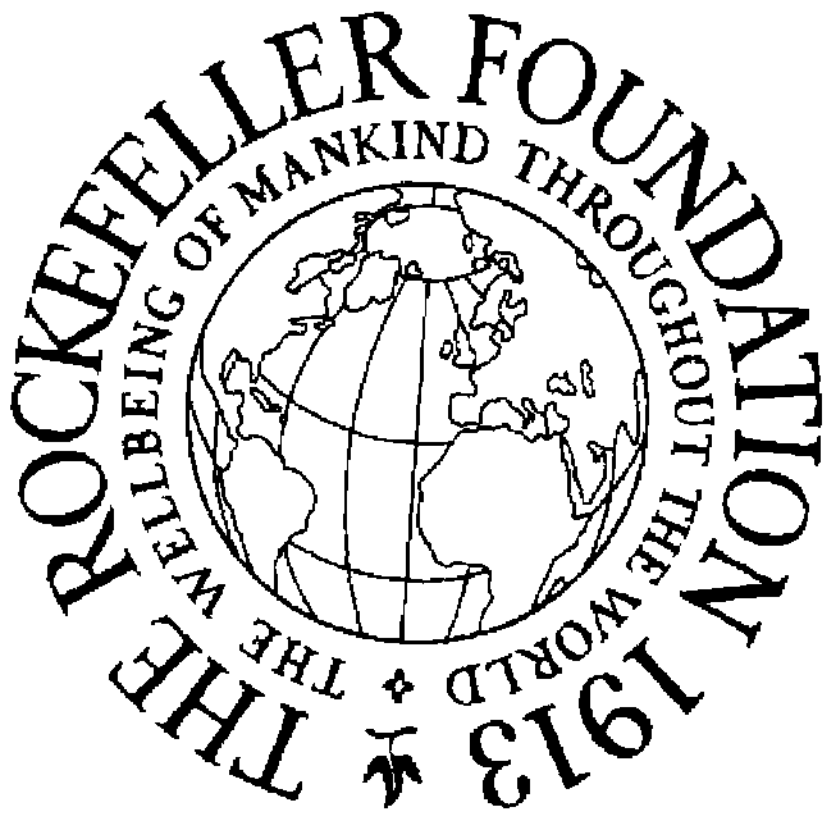


state agencies for agricultural research, education, and extension. Partly as a result, The Rockefeller Foundation has been asked to expand its Indian agricultural program beyond the two activities originally initiated in 1956, namely, to aid in the establishment of a graduate school of agriculture and to direct projects for the improvement of corn (maize) and sorghum.

The graduate school of the Indian Agricultural Research Institute, in New Delhi, came into being in 1958 and has now awarded 322 M.S. and 91 Ph.D. degrees. The maize project is making good progress in securing more effective collaboration between national and state research centers, and in addition has recently released a ninth double-cross hybrid designed for a particular maize-growing region. The sorghum project has released selected varieties and is well along with the creation of hybrids. A national corporation has been set up to handle the commercial production and distribution of seed of improved varieties of a number of crops.

The expansion of program requested by the Indian government consists of the addition of specialists in wheat and rice improvement to the Foundation's New Delhi staff. They will work with the organizations now dealing with these crops to introduce procedures similar to those which have proved so successful with the maize project. They will also help to link the Indian projects with the Foundation's international wheat program headquartered in Mexico, and with the International Rice Research Institute's efforts from its Philippine center. The Indian maize project is already an outpost of the Foundation's international corn improvement project, and it in turn has set up cooperative researches with agencies in Indonesia, the Philippines, Vietnam, and Thailand, effected through the exchange of breeding materials and regular visits by the Foundation's maize expert based in New Delhi.

The success of the innovations in the educational procedures at the graduate school, especially the insistence on directing research and training to the solution of practical production problems, has strongly influenced the philosophy and curricula of the agricultural universities being established in many of the Indian states. Members of the Foundation's staff have served on the groups which have guided the development of these state universities which, it is hoped, can function much in the way land-grant universities do in the United States.



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*Above*, packaging seed of one of the nine maize hybrids created in The Rockefeller Foundation's cooperative maize improvement project in India. *Below*, postgraduate fellows from Thailand gain experience in corn improvement at a cooperative station in India. The Foundation's Indian corn program has already "spilled over" to Indonesia, Vietnam, and the Philippines as well as to Thailand.



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## *Africa*

The Rockefeller Foundation has had an active interest in the improvement of African agriculture since 1958, when several members of its staff took part in an extensive study of the scientific and technical resources of the regions south of the Sahara. This interest has been continued by means of grants to agricultural schools and research institutes in several countries and by the award of fellowships for advanced training. In 1963 the Foundation took the further step of assigning staff specialists for direct cooperation with African organizations. One Foundation scientist is now stationed in Kenya, where he is teaching clinical pathology at the newly created Faculty of Veterinary Science of the University of East Africa, and also conducting research on anaplasmosis at the East African Veterinary Research Organization. At the University of Ibadan, in Nigeria, two others are engaged in teaching and research programs related to pasture and forage crops and to corn.

Many of the countries of sub-Sahara Africa inherited good agricultural and veterinary research organizations, but most of them were independent units unaffiliated with teaching institutions or extension agencies. A major objective of the Foundation's activity is to encourage close working relationships between academic research and crop improvement, with both dedicated to moving the results of research into practice in farm life. Only through close linkage among all the elements in agricultural improvement can African agriculture be raised from its very low levels of productivity. Research to increase the carrying capacity of pastures through the use of better grasses and legumes would be immensely beneficial to Africa's important livestock industry. Increasing corn yields would improve the human diet and also provide much-needed grain for feeding livestock.

The work in agriculture and veterinary science at the University of East Africa and the University of Ibadan is part of a broader effort. It is the Foundation's hope to assist a number of faculties in both universities simultaneously. Further discussion of this subject will be found in the section of this report on university development.

Grants made under the Conquest of Hunger program are listed on pages 101 to 113.

## PROBLEMS OF POPULATION

THERE IS general agreement that the rate of population increase in many countries is menacingly high. The existence of this consensus is perhaps the most notable feature on the population scene today; such widespread awareness did not exist even twenty years ago and only in the past decade have the first national programs of population control come into being. This change in attitude has partly been forced by sheer pressure of numbers, but it is equally the result of the efforts of the growing numbers of scientists, planners, and administrators who have now received special training in the field of population studies and who today are making this field their special responsibility.

Advanced training and research in population problems are long-standing interests of The Rockefeller Foundation and are now included in one of its five major program areas. In 1964 the Foundation was able to give substantial aid in three of the four areas which, broadly speaking, make up the field. These are: demography, or the gathering of the facts and figures which help define what the problems actually are; the provision of family planning services; and public education in the subject. The fourth area, research into the biology of reproduction, has been a Foundation interest for more than thirty years and investigations in this area now attract support from a variety of public and private sources.

For the leaders of underdeveloped countries, confronted simultaneously by the massive stresses of economic and social change, the problems of population growth sometimes appear insurmountable. One reaction is to hope that in the long run these problems will solve themselves. This is not necessarily an evasion: since it is historically true that the birth rates in developed countries have declined, roughly in step with their industrialization, it could be argued that a similar decline would accompany the economic growth of the underdeveloped countries. (The argument would, however, avoid considering the different time-scale which is now in effect, since the underdeveloped countries have rates of population increase far higher than those found in the European countries during their comparable growth periods.)

Unfortunately, there is no reason to believe that Europe's history will necessarily be repeated in Latin America, Africa, Asia, and the Far East. No fully satisfactory theory has yet been produced to support all the facts of the European experience, and no principle has yet been formulated to link alteration in the birth rate to economic and social processes. It may be that the decline in the European birth rate was the result of an interplay of factors so complex as to be virtually incapable of spontaneous recurrence, and it is certainly true that anomalies in the histories of European countries have made suspect any broad generalities. For example, there is evidence that birth rates began to decline in the 18th century in France, by the middle of the 19th century in Sweden, and by about 1880 in England and Wales, Belgium, Austria, Norway, and Hungary. By the 1890's the decline was under way in Italy, Spain, Czechoslovakia, and Poland. It had begun before World War I in Russia. Many of these countries were at different levels of development when their birth rates began to fall: the onset of the decline was nearly simultaneous in Hungary and England, yet England was perhaps the most highly industrialized country of the time, and in Hungary industrialization had barely begun. The population of England was about 80 per cent urban in 1880, and in Hungary only about 20 per cent.

It is therefore apparent that the nation as an entity is too heterogeneous to serve as a unit for the analysis of birth rate changes. Smaller, more homogeneous units are needed, and a promising start to the isolation of such units has been made by the Office of Population Research at Princeton University. A preliminary exploration by the office has shown that usable estimates can be made by province, rather than by country, and that data exist which will allow the construction of provincial estimates throughout most of Europe. The importance of these provincial calculations lies in the fact that it now seems that changes in birth rate can be much more localized than had been thought earlier. As one example, preliminary work at Princeton has shown that in the early years of this century the birth rate in the Russian province which included St. Petersburg had fallen to approximately 30 births per 1,000 population — comparable to contemporary rates in parts of Western Europe — while in the province containing Moscow the birth rate was still at the level characteristic of an under-

developed country. The office now plans, with Foundation aid, to make estimates of birth rates in Europe at various census periods from 1850 through 1960, for about 500 population groups at the subnational level. With these more finely focused and homogeneous data, a search will then be made for relationships between change in birth rate and such variables as the educational attainment of men and women of parental age; the proportion of the population that is urban; occupation; religion; and national origin or language. The hope is to illumine the combination of circumstances in which the birth rate begins to fall.

### BARRIER TO PROGRESS

Although the circumstances which led to voluntary limitation of family size in Europe are not yet clearly understood, it can be said that this limitation was a concomitant of industrialization. The "demographic transition" that accompanies industrialization has been described as consisting of three parts: first, a preindustrial phase with slow population growth resulting from high birth and death rates; next, industrialization accompanied by a period of rapid population growth, caused largely by a sharp drop in the death rate; and finally, the restoration of relatively slow population growth in the highly developed economy, but now with low birth and death rates. It seems probable, however, that the transition within the underdeveloped countries will not follow this pattern, one reason being that while the European countries took about 100 years to achieve significantly lowered death rates, the same stage is being reached in only one or two decades in the less advanced nations. Another reason is that the increase of population in those nations generally is running at from 2 to 3.5 per cent, or approximately double the rate of the European countries during the time of their most rapid growth. The result is that — in the view of many observers — population increase now stands as a formidable barrier to industrial and social development, and that even the largest inputs of aid and technology will be nullified unless lower rates of increase are achieved. The Foundation therefore is assisting projects which increase the effectiveness of national planning policies.

The problem of population in relation to economic planning was



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A public health worker shows a filmstrip on family planning to wives of laborers in a Taiwanese sugar company. Taiwan is one of the nine countries where the Population Council is providing technical aid for action programs in family limitation. The Rockefeller Foundation has made substantial grants to support the Population Council's work in the technical assistance field.

the subject of an Asian Population Conference held late last year under the auspices of the United Nations Economic Commission for Asia and the Far East (ECAFE). At a subsequent meeting of members of the economic commission it was decided to expand the commission's regional demographic program and, in particular, to enlarge the scope of technical assistance made available to governments of the region. As a result the commission added to its staff a demographer and a regional demographic adviser. A further expansion of ECAFE's program is now envisaged, requiring the immediate appointment of two more demographers and the provision of supporting services for them. One of these specialists will organize an information clearinghouse at ECAFE, with special concern for governmental experience and research in the application of population policies and for studies of population growth in relation to economic and social progress. The second demographer will serve as an additional regional adviser to assist Asian governments in research and action, especially concerning the problems of motivation and communication.

Governments of underdeveloped countries will be able also to tap a fund of specialized knowledge through the Population Council, New York, which is creating a Technical Assistance Division. The aim of the new group will be to provide comprehensive advisory services to national family planning programs.

The council was incorporated in 1952 and in its early years made grants for research and also carried out its own investigations, mainly in the fields of demography and the physiology of reproduction; the council's present system of awarding fellowships, primarily to students from abroad, also was initiated in this period. In recent years, as the governments of underdeveloped countries became more concerned with population problems, the council was asked to provide an increasing range of advisory and consultative services. In 18 countries technical and financial support has been given for field studies of attitudes, information, and practices related to family planning, and in nine countries action programs have been helped. Recently, several countries have asked the council to assign staff to help set up and administer nationwide family planning projects on a long-term basis; the world demand for such specialized aid is expected to grow rapidly in the near future. The council has decided that its expanded activities can



be most effectively carried out by placing all operational work within a new Technical Assistance Division with a permanent staff available for assignment to advisory posts overseas. It is expected that the new division's professional staff will ultimately number about 25, including public health administrators and specialists in communications and other areas of applied social research. The division's aim will be to provide comprehensive advisory services to national family planning programs. These services will include the development of ways of transmitting information on family planning to the general public and of measuring the effectiveness of the transmission. Help will also be given, if necessary, in setting up administrative arrangements for the provision of family planning services, including the manufacture and distribution of contraceptive devices.

In the shaping of national population policies, governments depend basically upon demographic information. Kelvin's dictum, "What can be measured can be understood," has special meaning since the process of change in population structure is not immediately apparent and can usually be uncovered only through complicated techniques. Population planning is thus more difficult than, for example, national resources allocation, if only because the securing and interpretation of the data upon which decisions are made is itself a highly complex task.

The science of demography is well established and supported in advanced countries. There is, however, still great need for trained demographic workers in the underdeveloped countries, and for the foreseeable future these countries will have largely to rely for advanced training on facilities in the United States and Europe. The Foundation therefore continues to aid existing centers for the further development of the science, in view of its crucial importance in initiating and shaping control programs in emerging countries.

One of the leading centers for advanced training is the Office of Population Research at Princeton University. Its graduate program produces a significant number of economists and sociologists for whom population is a major field of specialization, and the office also gives special training to students from overseas; sixty students from more than twenty countries have studied at the office in the past nine years. Research at Princeton is directed mainly to international demography and the refinement of analytical techniques. The office's contributions

Another of the countries where the Population Council is assisting a family limitation program is Korea. The picture shows Korean workers inspecting plastic intrauterine loops, one of the most effective and inexpensive contraceptive devices known to science. The Korean and other action programs have evolved from the council's ten-year experience in demographic and exploratory investigations in all parts of the world, a number of which had Foundation support.



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include a textbook on methods of population analysis prepared especially for use in underdeveloped areas; a study of life table construction from limited data; and work on stable population theory, age distribution theory, and on better techniques for demographic estimation where data are limited or undependable. The office also publishes the periodical *Population Index*, an annotated bibliography of world literature which has become a basic research tool. From the Princeton office have come definitive published treatments of the populations of Japan and India, and many national and international agencies have looked to the office for consultative aid; over the next decade it is planned to further strengthen the training, research, and other services of the Office of Population Research.

### PROBLEMS OF COMMUNICATION

To be effective, a national population plan also requires an unusual degree of public awareness and acceptance, and the creation of this favorable climate poses a considerable problem in communications. In this latter field, pioneering work has been carried out by the Population Reference Bureau, Washington, D. C., which was established in 1929 as a nonprofit educational membership organization to "provide the educational link between research and action on the population problem." To create this link the bureau's educational program is aimed at conveying demographic information in factual terms, presenting complex technical data in a clear, readable, and accurate form adapted to general public use. The program includes publishing educational materials on a regular basis, maintaining an international clearinghouse for demographic information, providing schools and colleges with low-cost teaching materials, and making factual information available to the communication media. The bureau's major educational instrument is the *Population Bulletin*, which translates statistics and demographic data into language which nonspecialist readers can understand and relate to the problems of contemporary society. It is widely recognized as an authoritative source of population information and in recent years has developed into a publication of influence.

In 1961 the bureau started a special Latin American program on a pilot basis, aimed at emphasizing the impact of rapid population



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The objective of the Population Reference Bureau, established in 1929, is to provide an "educational link between research and action" in the field of demography. Among its chief activities are the publication of educational materials and the maintenance of a clearinghouse for demographic information. In 1961 the bureau experimented with translating some of its publications into Spanish and Portuguese for distribution in Latin America; a Foundation grant is assisting the expansion and extension of this part of the bureau's program.

growth on social and economic development of an area where such information is lacking and where the rate of population growth is higher than in any other continental region in the world. Special reports in Spanish and Portuguese and summary translations from regular publications in English are distributed to Latin American newspapers, technical and scholarly journals, and to members of leadership groups. This work has been carried on so far by the existing staff, but the growing demand for demographic materials in Latin America calls for additional staff who can devote full time to the program and its extension. A Foundation grant will make this possible.

The formulation of a national population policy and the creation of an informed public opinion may be viewed as the structure within which a series of individual decisions about birth control will eventually be made. The factors which influence these decisions, and the kinds of assistance which should be offered to individual parents, are the subject of intensive research in projects in many countries; one example is a family planning study being carried out in Santiago by the University of Chile and Harvard University. The study of a small sample of women in the Quinta Normal area of the city, in 1959, documented an abortion rate of one in three pregnancies, a rate which is among the world's highest. Under an agreement between Chile and Harvard a pilot study was carried out in 1963 on a larger sample, and detailed information was collected on abortion and birth control in relation to social and economic factors. Family planning techniques and materials were made available to eligible participants, about one-third of whom elected this assistance. Encouraged by this response the Foundation in 1964 helped to extend the study to all women of child-bearing age within a low-income population of about 60,000 people. The survey was headquartered at a government medical center in the Quinta Normal (a center also used as a base for field teaching and research by the Faculty of Medicine of the University of Chile). The project was designed to yield a great deal of material for subsequent computer analysis and to establish, through frequent follow-up, the acceptability, reliability, and long-range effectiveness of various contraceptive methods.

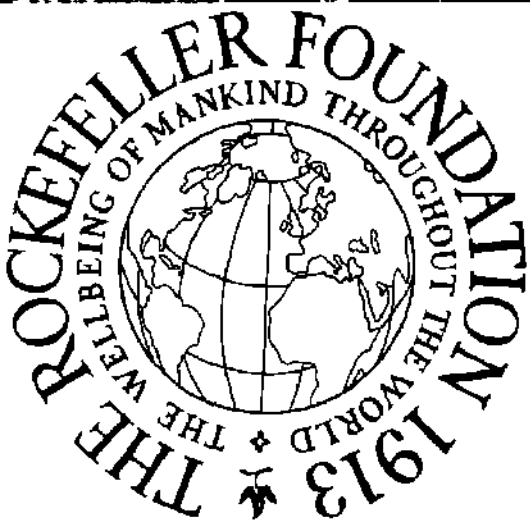
Grants made under the Problems of Population program are listed on pages 114 and 115.

## UNIVERSITY DEVELOPMENT

**HISTORICALLY**, strong universities are the principal source of scholarship, research, and trained leaders; they must be reckoned a force without which progress on a national scale is not possible. Today in many new and revitalized countries, sound social and economic development depends to a critical degree on the structuring of educational systems that culminate in universities able to perform two broad tasks. First, they must be able to train men and women to carry out the functions of government, to staff the professions, and to manage commerce. Second, they must possess research resources and personnel capable of contributing to the theoretical and practical bases on which a viable society can be built.

The Rockefeller Foundation's efforts to assist in the development of such institutions in emerging nations is today the closely coordinated responsibility of executive officers and field specialists in the Foundation's programs in the humanities and social sciences, the medical and natural sciences, and the agricultural sciences. This interdisciplinary group cooperates closely with six overseas universities whose continued development promises to be of real significance to their nations and regions. The criteria used in the selection of the universities are these: strength in several academic departments; a desire for improvement; able leadership; and the likelihood of increasing support from private and public sources within their countries and from other agencies with international interests.

Grants for overall institutional development and for especially promising projects have been from the beginning an essential tool to assist the universities to achieve their goals. But perhaps the Foundation's greatest contribution now lies in making available the services of outstanding teacher-administrators to assist the development of key university departments while filling important academic posts. In this sense, university development has become a cooperating program, comparable to the programs in the agricultural and medical sciences, with a field staff of highly competent and experienced professionals. At the request of the universities, the Foundation has assigned members



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At the University of Valle, Colombia, one of South America's most progressive institutions, eleven Rockefeller Foundation staff members held visiting appointments in 1964 in medicine, nursing, engineering, and liberal arts. *Above*, the school of medicine and university hospital; *below*, one of the engineering laboratories.



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of its own staff and is assisting in recruiting exceptionally able people from United States universities. This is never easy, and is likely to become increasingly difficult with time; nevertheless the Foundation has been able to attract senior scholars from outstanding institutions for such cooperative assignments.

While major emphasis in the university development program falls on strengthening faculties and facilities, the Foundation is aware that teaching cannot be effective without a flow of new ideas and materials into curricula and research. The training of students willing and able to contribute to national development requires books and study materials, which in turn presupposes a substantial amount of research and writing on problems fundamental to the future of developing areas in Africa, Latin America, and Asia.

Gaps exist in our knowledge of developing economies, concerning such subjects as the structure of agriculture, the beginnings of manufacturing, and terms of trade. Research on economic and political history is vital to the understanding of developing social systems; and investigations in economic theory and problems of constitutionalism are needed to deepen the wellsprings of knowledge in these fields.

The Foundation is therefore encouraging outstanding scholars to turn their attention to the developing countries. As research proceeds, the results can be channeled quickly into the preparation of teaching material and the organization of teaching relevant to particular countries and areas.

A brief review of the institutions with which the Foundation is actively working follows.

#### UNIVERSITY OF VALLE, COLOMBIA

Of great importance in Latin America was a move by local leadership to revitalize centers of higher education. What was needed was a university, vigorous and young, that was prepared to break with tradition to meet the realities of the total educational structure of a Latin country, a university willing and able to demonstrate that higher education equivalent to the best of North America and Western Europe could be achieved.



The University of Valle was established in 1945 to do just this, with an autonomous board of trustees representing the local community and dedicated to meeting the needs of that community. The Faculty of Medicine, endowed with exceptional leadership, showed in the early years that a modern medical school could be established that would attract attention and respect from other Latin centers.

From the experience of the medical school came certain guidelines for the development of the university as a whole. The school had been unable to obtain entering students from secondary schools with sufficient general education to participate fully in the high level of instruction provided for them. It was clear that a new basic general course would be required to equip students for university-level work. In 1961 The Rockefeller Foundation assisted in establishing a school of general studies in the university to prepare entering students for advanced work in the various disciplines. This program is now fully accepted by the faculty and students; similar curricula are being adopted by other Colombian universities. At the same time, determined efforts have been made to strengthen those faculties of key importance to a growing economy and a modern society in Colombia — economics, engineering, and nursing.

The year 1964 saw the beginnings at Cali of graduate education on the M.A. level as well as significant increases in the quality of students and faculty. The Rockefeller Foundation has continued to assist the university in a wide variety of projects. The scattered libraries attached to individual faculties (with the exception of medicine) have been amalgamated, and modern library procedures have been instituted. The medical school's department of physiological sciences is being further strengthened through its continuing relationship with the College of Medicine of the University of Tennessee. A number of teachers and researchers from the college have been on long-term assignments at Cali; Cali faculty members in turn have been assisted to complete graduate studies in the United States. With the help of a Foundation grant, faculty members of the University of Texas are continuing their participation in the English-language training program. The Faculty of Economics, which now is able to offer the M.A. degree in industrial management, is emphasizing in its curriculum the fundamental aspects of the economics of development. The School of

Makerere University College in Kampala, Uganda, is the senior constituent college of the University of East Africa. *Right*, a view of the campus; *below*, agricultural scientists and students discuss hybrid corn being cultivated at the college's experimental farm.



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Nursing is receiving continuing attention to develop faculty and curriculum. Seven regular and four special members of the Foundation's professional staff are in residence at Cali. Of particular interest to them are the development of the medical school and its associated rural health center into an institution capable of training medical personnel who can meet the needs of a predominantly rural population; and the strengthening of the university's teaching and research resources in the humanities and social sciences. Community acceptance of the University of Valle is growing steadily: during the past year a foundation was created locally with the objective of developing increasing private support for the university.

### UNIVERSITY OF EAST AFRICA

Shortly after their nations achieved independence, political leaders of Uganda, Kenya, and Tanzania accepted the recommendations of senior administrators and faculty members of the three university colleges of East Africa to form a single university, to be shared by the three states.

Today each college maintains its own arts and sciences faculty for undergraduate instruction. Graduate training in medicine, nursing, and agriculture is currently offered at Makerere University College, Uganda; instruction in engineering and the veterinary sciences is given at the University College in Nairobi, in Kenya; law training is centered in the University College, Dar es Salaam, Tanzania.

The year 1964 was the first during which the university operated under the triennium plan worked out the previous year in a conference of African higher education leaders, representatives of the East African governments, officials of interested United States, British, and international agencies, and Rockefeller Foundation officers. Despite the political uncertainties prevalent in East Africa during the past year, the development of the three-nation institution progressed; of encouragement is the fact that local governments have been able to finance up to 85 per cent of the normal recurrent expenses of the constituent colleges and graduate schools.

The support of The Rockefeller Foundation centers on a number of projects of key importance not only to the future of the university

*Right*, a botanist of the faculty of University College Nairobi, Kenya, and *center*, a class in law at University College, Dar es Salaam, Tanzania. These two institutions, with Makerere University College in Uganda, constitute the unique three-nation University of East Africa, which offers instruction in practically all the professional disciplines important for the development of the cooperating nations. *Below*, another institution to which the Foundation made a grant in 1964 is Morogoro College, also in Tanzania; shown is an agronomist discussing maize with an extension worker. Morogoro, a new college, provides a three-year diploma course in agriculture.



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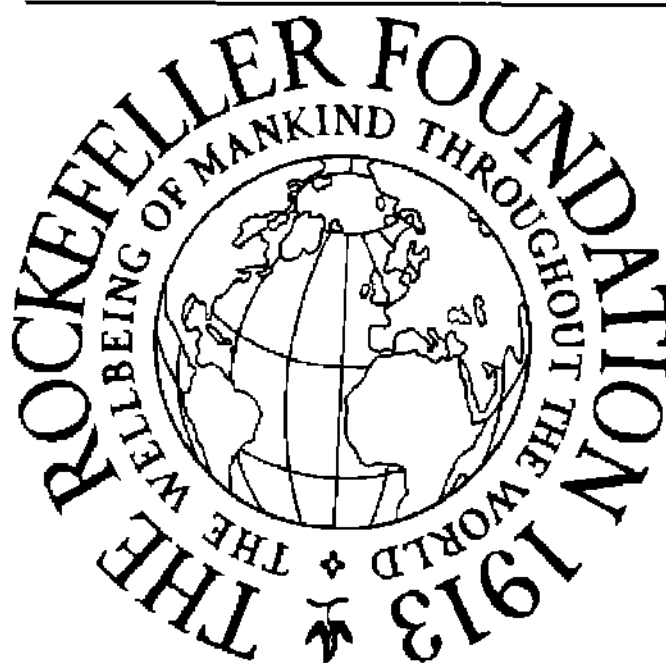
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but also to that of its founding nations. The university must develop African scholars capable of guiding East Africa's culture and of initiating research on endemic problems. The Foundation is therefore supporting programs to expand the present African staff by recruiting East African scholars from universities outside the area, by establishing scholarships to hold top-flight graduates within the university until posts are available, and by establishing special lectureships for scholars returning from study abroad. It is hoped that these programs will raise the proportion of African scholars manning established posts of the colleges from 17 per cent today to 40 per cent by the end of the three-year period.

The problems of economic development, social restructuring, and political change are of crucial importance in the new nations of East Africa. For the university to mount a major research program in the social sciences, however, it is necessary to train East African graduates, to develop research which will result in teaching materials of a truly African character, and to create research programs which will produce a flow of information valuable to government leaders and other policy makers. The Foundation has consequently made available to the university at its request outstanding scholar-administrators from its special staff to assist in the development of the social sciences, and has assisted arrangements between American universities and the University of East Africa to augment the senior teaching and research staffs.

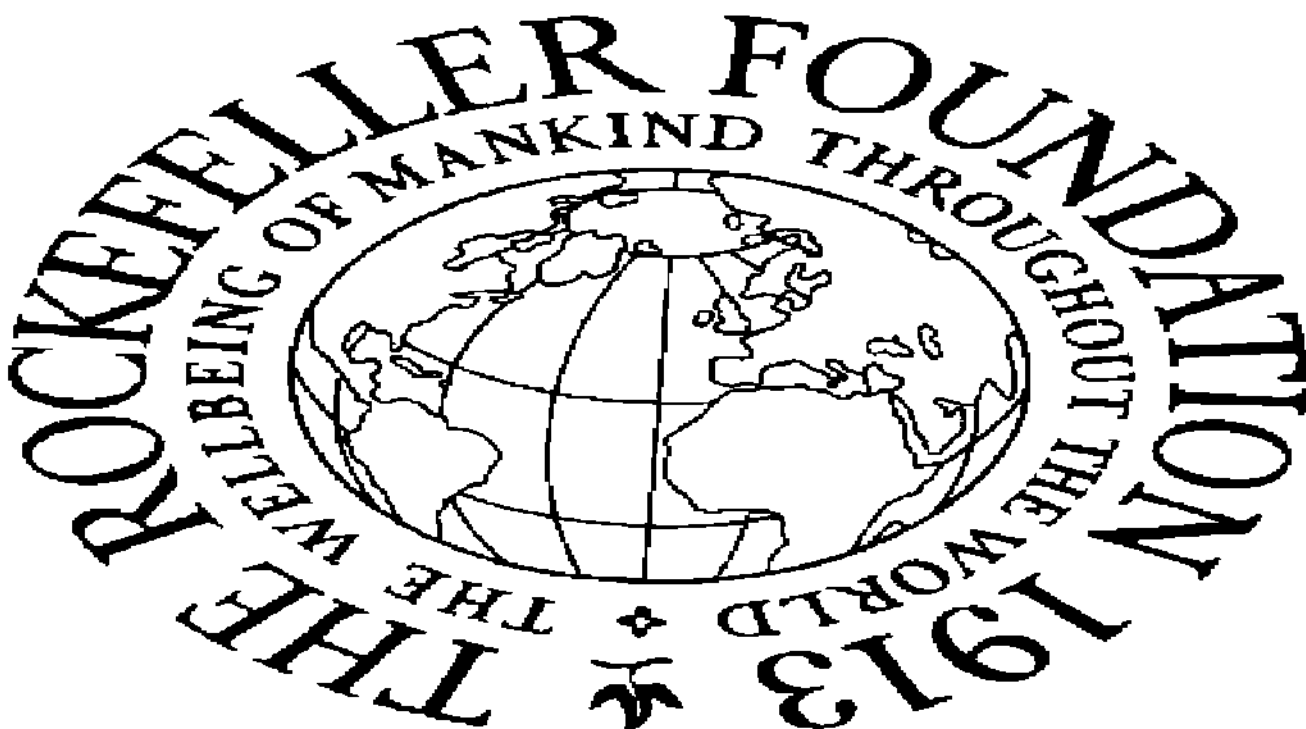
Kenya, Uganda, and Tanzania have an economy based mainly on agriculture; the Faculty of Agriculture of Makerere University College plans to nearly double its intake of students and to institute graduate training. A grant from The Rockefeller Foundation is enabling the faculty to expand its present laboratory facilities and to add additional technical personnel which a larger student body will require, as well as to employ two senior professors for the expansion of research and teaching in agricultural economics and agricultural engineering. The Faculty of Veterinary Science in Nairobi is developing in teaching and research with Foundation assistance and staff augmentation from United States, British, and German universities.

Of special interest in relation to the Foundation's activities in the field of population is the demographic and related field work now being initiated at the rural health center near Kampala, Uganda. This



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*Right*, a reading room of the main library of the University of Ibadan, Nigeria; *below*, a rural health center associated with the university's School of Medicine. Eight Rockefeller Foundation staff members are in Ibadan assisting university research and teaching in agriculture, liberal arts, medical education, and arbovirus diseases.



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center, which is used by several departments of the medical school at Makerere to train student physicians to manage large outpatient services with the assistance of paramedical personnel, can be considered a living laboratory for determining basic attitudes in population activities.

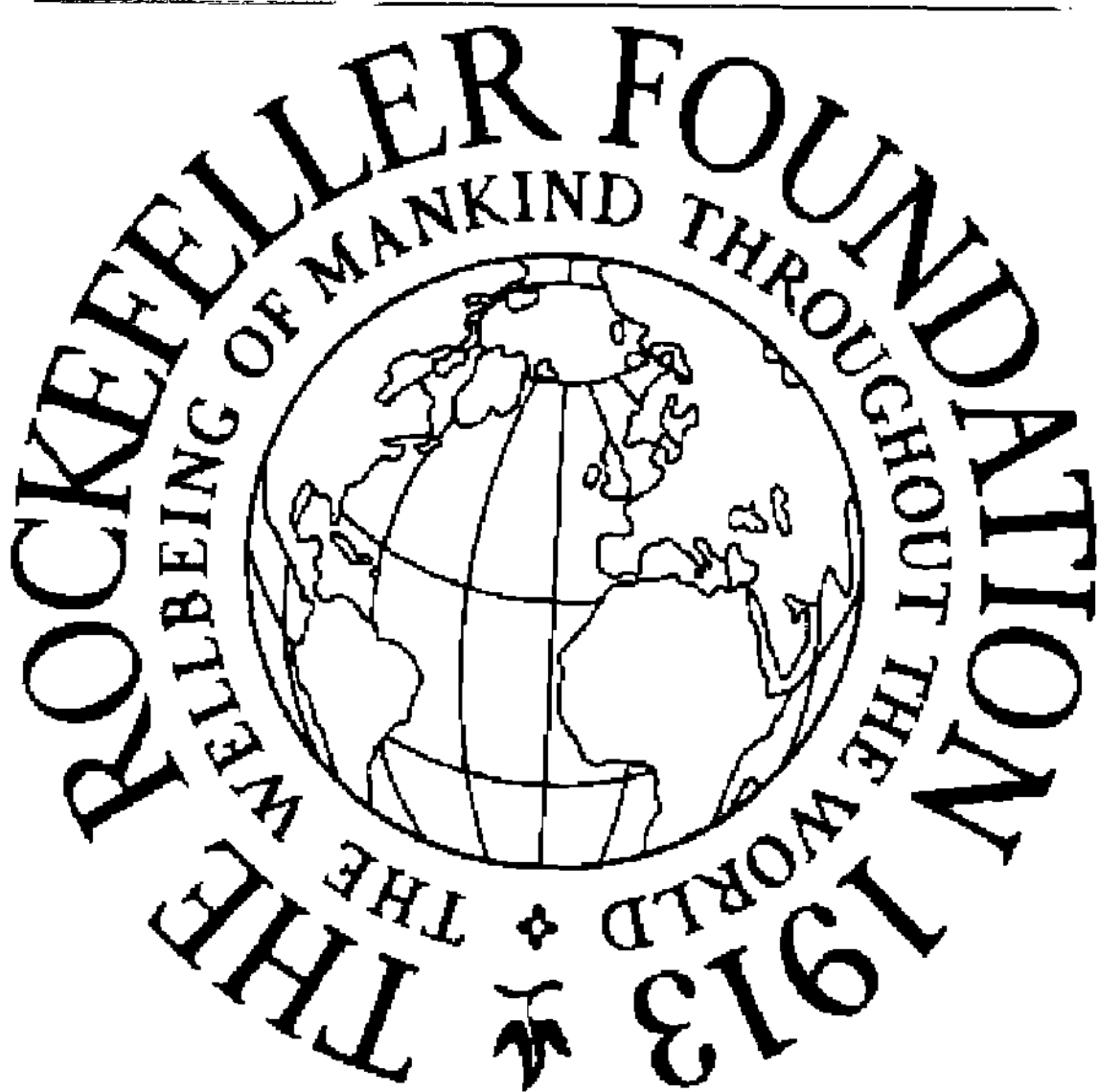
#### UNIVERSITY OF IBADAN, NIGERIA

Unlike the University of East Africa, the University College at Ibadan was established in 1954 with an able though small core of scholars from the African community to supplement the basic expatriate staff. In 1960 Nigeria became an independent state; by 1963 the University College was ready to become a full university under African leadership.

When the political leaders of Nigeria launched an ambitious program for the development of new primary and secondary schools and four new universities, it was clear that the University of Ibadan would have to play the key role in sharing its African scholars with the new universities and in producing as rapidly as possible scholars prepared to man the new institutions at all levels of education. In some instances such as the departments of chemistry, physics, and history, and the school of medicine, the university was prepared to offer graduate training to the doctorate level to prepare future academic staff for Nigeria. Other departments were sufficiently strong to train future academic personnel. A five-year plan for development of the university on a broad scale was drawn up. The plan required money, but it more urgently required able scholars to fill the gaps in many departments while African scholars were being developed.

In addition to teaching staff, Nigeria required young men capable of coping with complex economic and political problems and of developing a new approach to agriculture and animal husbandry, to offset the widespread protein deficiency afflicting the population.

In the short span of two years, The Rockefeller Foundation has been able to assist the university in placing key scholars in the departments of political science, economics, agriculture, and medicine. Funds have been provided to support teaching and research to strengthen the graduate programs in medicine and chemistry and the new program for veterinary sciences. The Foundation's scholarship program has played



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An experiment to determine optimal levels of fertilization for corn at the farm of the College of Agriculture of the University of the Philippines. The International Rice Research Institute is adjacent to the college and graduate students may work for credit at both institutions. Foundation staff are also associated with the university's undergraduate college and with the School of Medicine.



an important role in developing the men who are now receiving university appointments.

## UNIVERSITY OF THE PHILIPPINES

This institution appears to be a logical choice for development into a university of greater regional importance. It operates in an environment not unlike those prevailing in most countries of Southeast Asia; the College of Agriculture of the university and the associated International Rice Research Institute have shown clearly that Asian scientists and students from a number of countries will work together in harmony if a faculty has the standing to attract them.

The university administration, in consultation with Foundation officers, has established priorities for an orderly development of a series of departments to serve as international training centers. Major allocations have been made to strengthen research and graduate training in disciplines having immediate and long-range importance for the development of the Asian countries. These include the department of economics and the associated Institute for Economic Development Research, and the departments of English and comparative literature, history, political science, philosophy, and sociology. Young Philippine scholars have been chosen by the university for training abroad. In the interim, The Rockefeller Foundation is supplying certain key academic staff to work with the university faculty and administration in the development of these critical disciplines; including the services of one of its officers to help direct the development of the university's medical school.

While the College of Medicine of the university is the strongest and only modern school of medicine in the Philippines, the university leadership and the Philippine community both recognize the need to greatly strengthen the school's standing in research and in graduate training, and to develop basic faculties and facilities of the medical school and the university's science departments.

The Foundation officer in residence possesses substantial experience in planning and running a complex medical center, a professional asset that should prove of value to the university in planning its new medical sciences center on the Diliman campus. Meanwhile, of immediate importance is the initiation of a well-ordered program for training

At the University of Medical Sciences, in Thailand, a graduate student in biochemistry takes notes on the progress of an experiment in nutrition. The university is one of four Bangkok institutions which have received recent Foundation grants; Foundation staff members in the medical and natural sciences and in the humanities and social sciences are also located in Bangkok.



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academic staff for the fundamental sciences. To meet this need, Rockefeller Foundation scholarships are being awarded to current faculty members and new graduates.

## THAILAND

Higher education in Thailand is provided almost entirely by an interrelated complex of institutions in Bangkok, some of them serving a single discipline, with only loose administrative coordination of their functions. There is considerable agreement among Thai leadership that the present system lacks the capacity to meet fully the trained manpower needs of a complex society.

The Foundation, whose interest in Thai higher education goes back some forty years, has agreed to participate in the coordinated development of four outstanding institutions, Chulalongkorn, Kasetsart, and Thammasat Universities, and the Faculty of Medical Sciences of the University of Medical Sciences. Officers of the Foundation's major disciplinary groups are joined in studying ways and means of helping the Thais to bring about the changes which they feel are required to create modern universities staffed by Thai academicians trained in their own centers and producing graduates competent to deal with a modern country in the Far East.

A Foundation staff member has been appointed to the Faculty of Medical Sciences to develop graduate training in biochemistry and to initiate fundamental studies and training in human nutrition.

Another staff member is in residence at Thammasat University as visiting professor to develop a program in the humanities and social sciences. It is likely that additional professors and advisers will be requested and assigned to the liberal arts faculties to provide help in planning new teaching and research programs in these vital areas.

## UNIVERSITY OF KHARTOUM, SUDAN

Soon after their country gained its independence, Sudanese leaders, reared in a tradition of fine education, established a long-range program to strengthen general education and to develop a university of high standards manned by competent Sudanese scholars. The University of



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Veterinary scientists at the University of Khartoum, the Sudan, record data in a study of animal diseases. The university, established in 1956, is currently in the midst of a long-range program to expand its facilities and strengthen teaching and research in all its faculties. The Rockefeller Foundation has recently made a number of grants to aid the program.

Khartoum was created in July, 1956, as an independent institution with an autonomous board responsible only to the president of the Sudan. It is today in the midst of a long-range plan to strengthen teaching and research in the fundamental sciences, in such departments as economics and political science, and in the Faculties of Agriculture, Veterinary Science, and Engineering. At the same time, the university is making great efforts to raise substantially its intake of students sufficiently well-prepared to benefit from higher education.

The Sudanese government is assuming very considerable financial obligations to make this ambitious plan a reality. Some outside aid has been necessary, however, and at the request of the university, the Foundation has provided funds for teaching and research equipment unavailable locally, and will assist the university in obtaining temporary staff to complement Sudanese scholars.

A list of the grants made under the University Development program appears on pages 116 to 125.

## EQUAL OPPORTUNITY

ONE OF THE fundamental challenges of our times is to extend equality of opportunity as rapidly as possible to that substantial segment of our population which at present is still excluded from enjoying the full advantages of our society.

Many, though by no means the majority, of these disadvantaged citizens are Negroes; it is they who generally experience most keenly the deprivation of civil rights, and especially the lack of educational and career opportunities.

Removing barriers to opportunities for Negroes and other disadvantaged citizens requires sustained and coordinated effort in many fields by many people and institutions. The Rockefeller Foundation, in part because of its considerable experience in demonstrating the value of trained intelligence in advancing man's well-being, has defined its role primarily, but by no means exclusively, as helping to provide for minority group members more nearly equal educational opportunities in the best colleges and universities. By bringing these students into the mainstream of American higher education, the Foundation hopes to participate in speeding up the pace at which talented and fully qualified men and women move into professional, executive, and technical careers which offer possibilities of achievement and eminence.

The flow of Negro students to the better colleges and universities has historically been impeded by formidable barriers. As a result, relatively little is known as yet of the most effective ways in which disadvantaged students can achieve equal access to higher education. An important element of the Foundation's present activities is therefore to gain information as to effective means for preparing, qualifying, and maintaining such students. In each of the trial programs in which the Foundation is participating, emphasis is placed on learning from systematic appraisal of the projects and on making what is learned available for the guidance of others.

No one can say how much potentially superior talent is not being developed because of the inadequate primary and secondary schooling available to our minority-group children in the segregated schools of

the South and from *de facto* segregation, largely the result of residential patterns, found within the largest Northern cities. Of considerable interest, therefore, are the possibilities of identifying talented disadvantaged students during their high school years and, through special programs, setting them on the path to successful preparation for college. Such projects are designed not only to increase quickly the numbers of minority-group students who have good prospects of doing well in college, but also to stimulate efforts in the secondary schools to identify minority-group students with college potential and insure their adequate preparation for college entrance.

### ON-CAMPUS SESSIONS

In 1963, the Foundation assisted Princeton University, Dartmouth College, and Oberlin College in pilot programs to identify such students in neighboring urban high schools and to bring a number of the most promising to their campuses last summer for intensive college preparatory work. During the past year, projects with generally similar objectives were entered into with an outstanding private school and two women's colleges. The Hotchkiss School will offer an eight-week summer preparatory course for 100 boys, each of whom will attend the session for three consecutive years. In the first two years the course will emphasize skills in communication through mastery of English and mathematics, and possibly a second language. The third summer session will include concentrated work in fields of special interest such as science, history, and literature.

Any boy of intellectual promise from a poor family will be eligible, with preference to boys from slum neighborhoods, and especially, from segregated areas. Hotchkiss will employ a full-time field director to visit major cities in New England and the Middle Atlantic states, and to work with junior and senior high school guidance counselors and principals, boys' club leaders, clergy, and others, in identifying and selecting the participants. Contact will be maintained with students and teachers throughout the high school period.

The plan's objectives are to assure completion of a demanding college preparatory course and thereby give each boy confidence that he can be successful in college undergraduate work; to increase the

skills of communication; and to encourage students in overcoming environmental obstacles. Hotchkiss' staff will work with colleges and universities in placing the students and in procuring financial assistance for them.

With similar Foundation assistance, Connecticut College and Mount Holyoke College have developed programs, to begin in 1965, of three years of summer courses and two additional years of follow-up and assessment for high school girls, mostly Negro, who possess talent but come from underprivileged backgrounds.

Connecticut College will enroll about forty girls each year for an eight-week session. The summer curriculum will include writing and reading, but will emphasize the creative and performing arts in which the college has special strength.

The hope is to develop natural aptitudes and to arouse enthusiasm for the humanities generally; during their subsequent high school years the college will maintain contact with the students through correspondence, staff visits, and continued counseling.

The second program, at Mount Holyoke, will enroll about fifty girls each year. These will be students identified by the Independent Schools Talent Search Program, a cooperative project of thirty secondary schools under which talented but disadvantaged children are admitted to the schools with scholarship aid.

The independent schools which cooperate with the Search Program will make scholarships available to the successful alumnae of the summer sessions, and the three-year experiment may thus result in up to 150 talented girls being put on the path toward a college education.

Several experimental programs assisted by The Rockefeller Foundation are being undertaken by private institutions; it is obvious, however, that the publicly supported higher education systems are a most powerful force in the achievement of equal opportunity since it is through them that most of the population receives its education. Particular interest therefore attaches to the plan of identifying and preparing potential college talent being carried out at Brooklyn College of the City University of New York. The project will develop the capacity of disadvantaged students within the college community, partly through the use of highly specialized facilities already in operation on the campus. These include the School of General Studies, which accepts



At Brooklyn College of the City University of New York, a pilot project is under way with some Foundation aid to develop and test a design for dealing with the problems of educationally disadvantaged students. The program seeks to demonstrate the effectiveness of such techniques as special admissions procedures, tutorial facilities, and remedial and guidance services in opening the door of higher educational opportunity to students with good potential whose progress has been hindered by social and environmental factors. This student is being given intensive instruction in language skills.

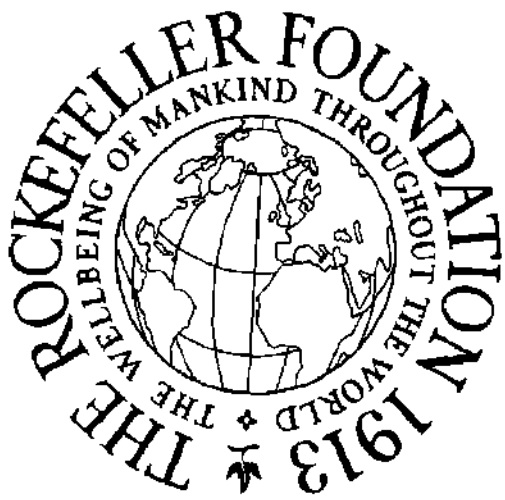


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some students who are not ready to meet regular college entrance requirements; the Basic Skills Center, which is available for improvement of reading, writing, and study skills; and the General Counseling Program, which provides individual and group guidance. About fifty students, mostly Negro and Puerto Rican, have now entered the School of General Studies; their courses are highly individualized and closely supervised; where needed, aid is given by the Basic Skills Center. Care will be taken to develop a progressive sense of accomplishment, and as ability is demonstrated the students will be permitted to take regular courses for college credit. Eventually, as the students prove they can do college work successfully, they will be transferred from the school to the regular college, where their progress will be watched by the project counselors. The experiment will test the belief that highly motivated but disadvantaged students, receiving intensive, well-planned instruction, can be brought into the mainstream of higher education. If successful, it may serve as a demonstration project for possible adoption by other educational systems located in large urban areas.

#### PARALLEL DEVELOPMENT

In contrast with projects which intercept the student before he completes high school, the Brooklyn program seeks to encourage the deprived student's development in parallel with that of college entrants from more favored backgrounds. The concept of parallel development is also being explored at seven private liberal arts colleges, each of which has been admitting and assisting Negroes in the past but now is making even more intensive effort to recruit and enroll talented students from Negro and other minority groups. To the extent required, these undergraduates will be given financial aid throughout their college years, as well as special tutoring and counseling; some of the colleges may also set up prefreshman programs for the students. The cooperating institutions are Carleton College, Minnesota; Grinnell College, Iowa; Oberlin College, Ohio; Occidental College, California; Reed College, Oregon; Swarthmore College, Pennsylvania; and Antioch College, Ohio. Foundation grants will enable them to identify and enroll students; provide special assistance and financial aid; and, throughout the venture, undertake analysis and appraisal of results.



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The Foundation is assisting intensive efforts by a number of private liberal arts colleges to recruit and enroll talented students from minority groups. *Above*, a scientist at Occidental College meets with students after a class; *left*, a Carleton College undergraduate at her part-time job on the dormitory switchboard. *Below*, participants in the 1964 Oberlin College summer program for talented, disadvantaged junior high school students set off on a field trip; Oberlin is also one of the seven colleges participating in the recruiting project.



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However desirable it is for Negro students to take their place with others in colleges and universities throughout the country, it is clear that now and for some years to come many Negroes in the South will find in the predominantly Negro colleges their only realistic opportunity for higher education. The leaders of numerous local Negro groups and communities will come from these colleges. Perhaps even more important is the fact that the teachers of most Negro children in the South will continue for an indefinite period to come from these colleges, and that any improvement in their training will help to improve the quality of primary and secondary schooling.

The Foundation's assistance to the Atlanta University Center recognizes a predominantly Negro institution with strong and able leadership, a real commitment to higher standards of performance, and significant prospects of wielding wide influence among educational institutions in the region. The Atlanta University Center is a complex made up of Atlanta University, the four undergraduate colleges (Morehouse, Spelman, Clark, and Morris Brown), and the Interdenominational Theological Center. These six affiliates occupy adjoining campuses and have a total enrollment of about 4,500.

Atlanta is the largest of the private, predominantly Negro universities in the South and the only one offering graduate work beyond the master's degree level. Its development has proceeded since 1929 under a total university plan, and this is being carried a stage further through the recent creation of the Atlanta University Center Corporation; the new body's purpose is to help strengthen the center as a whole and in this task it has given first priority to reinforcement of the faculties of the member institutions. Foundation grants were made to assist this endeavor and to strengthen the library facilities shared by these institutions.

With Foundation assistance two of the Center's undergraduate colleges, Morehouse and Spelman, are jointly undertaking an experiment with about sixty exceptionally talented but underprivileged boys and girls from the tenth grade. These students are to be brought to the college campuses each summer for three years, receiving in each year eight weeks of intensive instruction with emphasis upon reading, composition, mathematics, and chemistry; the colleges will make a special effort to keep in touch with the children throughout each high



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Students in the School of Library Service, Atlanta University, the only predominantly Negro institution of its type that offers the master's degree in library science; the strengthening of its program is expected to benefit communities and educational institutions throughout the South. It is one of several units of the Atlanta University Center Corporation that received major Foundation assistance during 1964.

school year through a program of Saturday classes on their campuses.

An additional grant was made to the university's School of Library Service toward development of a program which includes the provision of thirty scholarships and six fellowships, the enrichment of instruction, purchase of equipment and materials, and a series of cooperative projects with the library schools of Columbia University and of nearby Emory University. Atlanta's is the only Negro school of its type to give training at the master's degree level; the strengthening of its program is expected to help schools, colleges, and communities throughout the region by providing more and better-trained librarians.

#### AID IN OTHER FIELDS

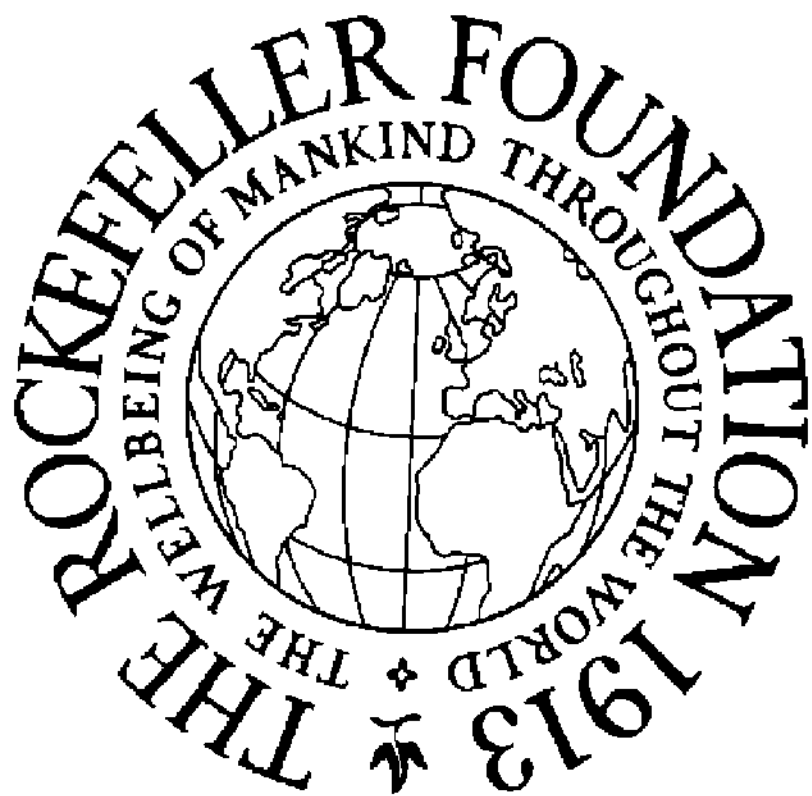
Teachers from a number of Negro colleges were aided during the year through five summer institutes organized by Educational Services Incorporated, a nonprofit group engaged primarily in the improvement of secondary school curricula. The institutes were supported by the Carnegie Corporation and The Rockefeller Foundation. Each institute was held at a leading university and the series included physics, English, history, mathematics, and biology. The summer sessions lasted approximately eight weeks, and each was attended by about fifty teachers; intensive training was given in the understanding and use of new curriculum methods and materials.

Although the Foundation's equal opportunity program is directed mainly toward education, assistance was given during 1964 to two outstanding organizations outside the field of education. The Foundation is supporting a plan for civic leadership development which is being undertaken by the National Urban League, Inc. Founded in New York in 1910, the league now has affiliates in 66 cities; its aim is to secure practical and enduring progress in the social and economic conditions of Negro residents of large cities. Its new project is an attempt to develop greater Negro leadership for community improvement. Following a successful pilot project in Columbus, Ohio, the league now plans to extend its program to ten more cities. In each of these a local staff member will recruit about 25 to 30 men and women who have potential leadership ability in civic affairs. The group will be given information about civic problems and how to deal with



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During 1964, Educational Services Incorporated, a nonprofit organization engaged primarily in the improvement of secondary school curricula, participated in the planning and coordinating of five summer institutes, in several fields, designed for selected teachers from predominantly Negro colleges. The Rockefeller Foundation assisted two of the institutes: one in mathematics at the University of Wisconsin, and one in biology at the University of North Carolina. Here, the participants in the Wisconsin program pose for a group photograph.



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A discussion of problems of urban housing in Columbus, Ohio, in a pilot project of the National Urban League to strengthen Negro leadership at the community level. The success of the Columbus effort led to the extension of the program to several other large cities, with partial financing from the Foundation.



them, and about the organizations in whose province the problems fall. Leaders of voluntary and official organizations will be brought into the program as consultants, thus creating an interchange between existing and potential leaders. In its Columbus experiment, the league found that participants were eventually able to occupy posts on some twenty boards and commissions of major civic and social welfare organizations.

The Foundation is also continuing its aid to the Southern Regional Council, Inc., a body which was formed to study regional race relations problems, report on them, and assist citizens' groups in understanding them. The council has an interracial membership of some eighty Southerners drawn from educational, religious, professional, business, and labor groups. Among its services is the provision of staff and consultants to various Southern community organizations seeking advice on the handling of specific local situations.

A list of grants made under the Equal Opportunity program is given on pages 126 and 127.

## AIDING OUR CULTURAL DEVELOPMENT

THE ROCKEFELLER FOUNDATION has for some 35 years taken an active interest in promoting cultural activities in the United States and abroad, in the main by supporting outstanding organizations which offered a continuing framework for individual artistic expression and development. To many authoritative observers, the United States today is experiencing one of the most exciting and productive periods of artistic creativity in its history, accompanied by increasingly larger and more knowledgeable audiences. Yet there are few highly developed nations where sustained financial support for the arts and artists is more precarious. Government support of cultural activities is virtually nonexistent; of the estimated \$850 million a year appropriated by foundations, perhaps only 1 per cent finds its way to the performing arts and other cultural projects. Great creative energy, appreciative audiences, lack of steady support — these are some of the compelling reasons which led the Foundation in 1963 to select cultural development as one of its major areas of activity in the United States.

During 1964, the Foundation focused its support on drama and music, and made a modest beginning in creative writing. The establishment of a program in the arts, under the direction of Norman Lloyd, formerly dean of the Oberlin College Conservatory of Music, is likely to result over the next years in expanded efforts in the whole field of cultural development. Officers in the new program, in close collaboration with the Foundation's humanities and social sciences program, will draw on the advice of distinguished consultants who represent a wide range of creative, teaching, and critical experience.

### MUSIC

Within the field of music, a number of projects, not necessarily the largest in financial terms, initiated during the past year, are indicative of the Foundation's interests and illustrative of some of the critical needs even in well-established art forms.

The present state of symphonic music in the United States is of concern to many professionals. Seasonal employment for the average symphony musician is too short to prevent him from having to seek an outside income or give up the music profession altogether. There is a general apathy toward new music among many of the principal supporters of symphony orchestras, and able composers, in their turn, tend to shy away from symphonic composition partly because they do not have access to orchestras and also because inadequate rehearsal time militates against expert performance of new works. It seemed to the Foundation that improvements could be achieved by helping to lengthen the regular seasons of a number of symphony orchestras for the purpose of performing new works by American composers while in residence at neighboring educational institutions. A major consideration for such projects is the assets and needs of universities and colleges; here orchestra and composer may find new, interested audiences for contemporary music in a stimulating environment, while students and faculty could gain much from discussions with, and, for some, the opportunity to play under, outstanding professionals.

Arrangements made by the Dallas Symphony Orchestra and the Seattle Symphony Orchestra, two of the eight orchestras which benefited from Rockefeller Foundation grants, are illustrative of the Foundation's aims in symphonic music during the past year. Next spring the Dallas group, under the direction of its regular conductor, will take up residence for one week at North Texas State University. Student composers, instrumentalists, and vocalists from Baylor University, North Texas State University, Southern Methodist University, Texas Christian University, and the University of Texas have been invited to compete for the opportunity to hear their work performed and recorded by the orchestra, or to appear as soloists.

The Seattle Symphony Orchestra, in residence at the University of Washington, will add a week to its season to present a concert of works by three young American composers, selected from scores submitted by some forty candidates, which have not yet received performances by professional symphony orchestras. The composers will be present to assist in the preparation of their pieces, and the best student musicians will participate in rehearsals and performances.

The collaboration between the six other educational institutions and their local orchestras is of a similar nature. Music students will be brought into personal contact with performing artists, and composers will be able to work closely on their own compositions with outstanding musicians and conductors. In each case the orchestras have at least matched the season's extension provided by the Foundation's grant, and host universities have provided additional funds and services.

A specific technique to stimulate symphonic composition, attempted by the Foundation in 1964 as an experiment, was to make possible the year-long residence of John Huggler, an outstanding young American composer, with the Boston Symphony Orchestra. Mr. Huggler had full access to the orchestra, and one of his compositions was performed by the group in Lincoln Center's Philharmonic Hall.

The professional future of even the ablest young instrumentalists, vocalists, and composers recently graduated from schools of music is made uncertain by the lack of opportunities to exercise their talents fully; often they are lost to serious music altogether because they must turn elsewhere for a livelihood. After considerable consultation with many authorities in the field, the Foundation believes that academic institutions may be able to play a pivotal role in further developing the professional skills of gifted young musicians and, in collaboration with other community organizations, to provide them with opportunities to perform. During the past year, three new music centers have been established which, with Foundation assistance, are likely to make considerable contributions toward these goals.

At the new Center for the Performing and Creative Arts developed by the State University of New York at Buffalo, some twenty of the nation's outstanding young professionals have been offered two-year appointments as creative associates. With the cooperation of such outstanding resident performers as the Budapest String Quartet and twenty teaching members of the Buffalo Philharmonic Orchestra, the center is bringing the young composers, instrumentalists, and vocalists into close working relationships to study standard and experimental forms of music. Public performances, in Buffalo and elsewhere, are an important part of the program; a series of concerts given this past winter at New York's Carnegie Hall, for example, was of great value to performers and well received by audiences.

The new Center for Music at the University of Chicago seeks to foster the study, composition, and performance of contemporary music. Graduate and postgraduate fellowships have attracted accomplished performer-composers and performer-musicologists; an ensemble, the Contemporary Chamber Players of the University of Chicago, has been formed and is giving concerts, within and outside the university, of works by young contemporaries and modern masters, as well as music no longer contemporary but not in the standard repertory. At the same time, the graduate group are pursuing their degrees on a half-time basis, while the postgraduate fellows are devoting their full academic time to composition or research, with opportunities to teach. The Foundation's grant has also helped to renovate the facilities used by the Center for Music and provides funds for fellowships and performance expenses.

In past years, some 500 young American opera singers have found it necessary to go to Europe to complete their training and to obtain professional experience; a few have earned international reputations during their self-imposed exile. To help overcome grievous shortcomings of opera training and performance opportunities in the United States, the Juilliard School of Music intends to undertake the development of an American Opera Center for Advanced Training, in collaboration with other constituent organizations of the Lincoln Center for the Performing Arts.

Fellowships for one or two years of training at the center will be available for all of the young men and women chosen on the basis of already established artistic proficiency; they are expected to commit their full attention to the intensive teaching and coaching made available by the Juilliard School's basic faculty, supplemented by additional coaches and instructors drawn from prominent guest artists. When in full operation, the opera center will offer professional experience to its young artists through public and invited-audience productions of masterworks and new operas, rehearsed for 10 to 12 weeks under leading conductors and stage directors. It is hoped that the center will serve not only as a training ground for singers, and other operatic artists and craftsmen, but also as a showcase from which opera companies will draw new operatic talent and technical leadership. A small part of the Foundation's grant will be used to meet initial costs

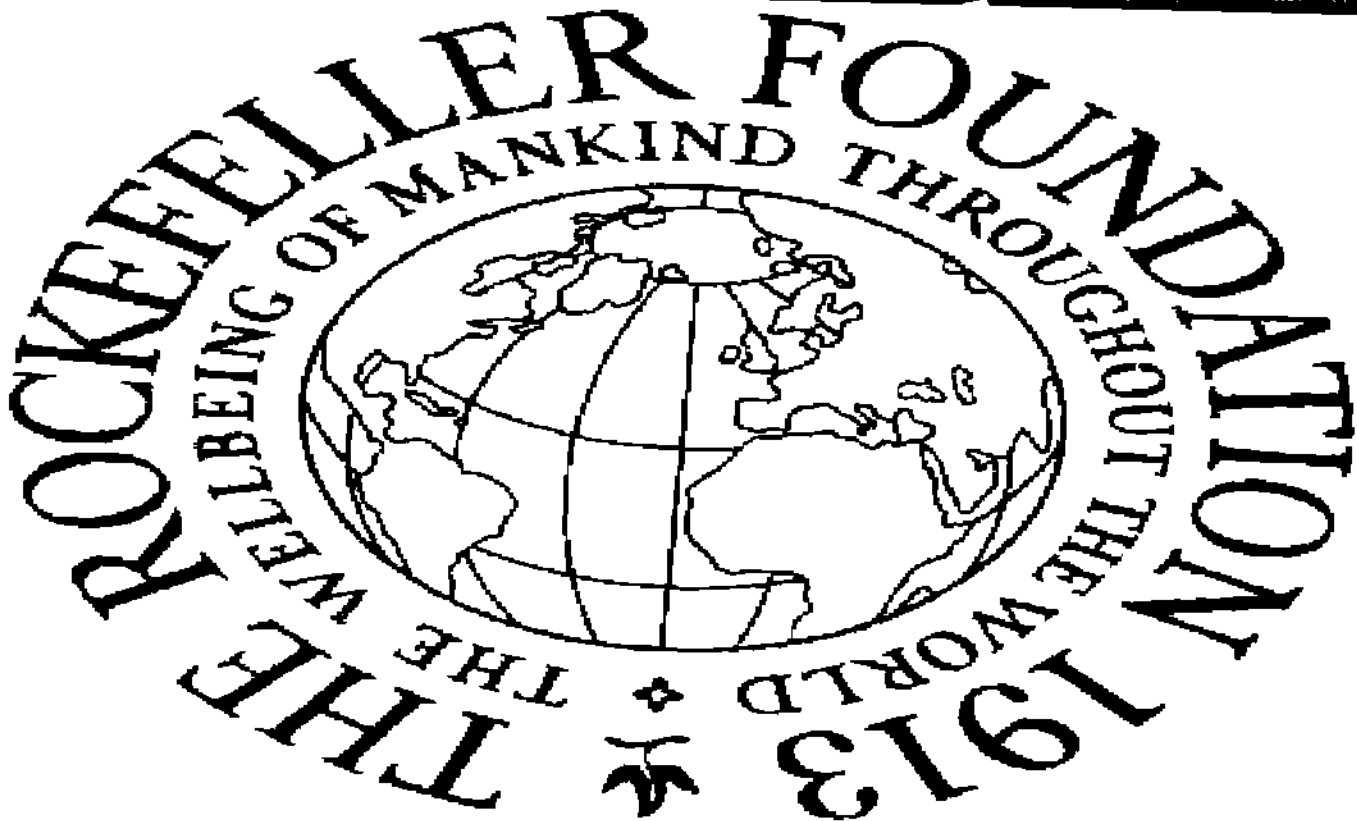


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Buffalo is one of a growing number of metropolitan centers in the United States developing an artistic climate which encourages young professionals in the performing arts to study, experiment, and develop their skills. At the Center for Performing and Creative Arts established by the State University of New York at Buffalo, some twenty "creative associates" hold two-year appointments to accomplish these purposes. The top picture shows a group of the associates rehearsing for a public concert. Across the country, Seattle is another community with growing interests in the performing arts. In the bottom picture, a rehearsal at the Seattle Repertory Theatre. The Foundation made grants in 1964 to both these organizations.

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of faculty recruitment, auditions, and curriculum planning; the remainder to help cover the salaries or fees of the center's own faculty and guest artists.

## THEATRE

During the past ten years, the professional theatre has taken root in a number of large cities throughout the country. This is in part because commercial pressures in New York, at one time the almost exclusive location of professional theatre, have forced playwrights, directors, and actors to look elsewhere for serious performance opportunities, and also because other communities are showing their willingness to support resident companies. The decentralization of theatre in the United States is of fundamental interest to the Foundation, whose concern is not with commercial productions but with the training of competent professionals — not only playwrights and actors, but also directors, designers, and other craftsmen.

As in music, the Foundation takes the position that collaboration between professional groups and universities strong in theatre can be mutually rewarding, and can enrich the life of their communities: the Foundation is convinced that a serious effort should be made to break down the barriers between professional and educational theatre. A beginning was made in 1963 with a grant furthering associations among the University of Minnesota, the Tyrone Guthrie Theatre, the Walker Art Center, and other cultural organizations in the Minneapolis area. Of outstanding interest this past year was the decision by Stanford University to establish a professional theatre company and to initiate a new graduate program in theatre leading to the Master of Fine Arts degree.

A grant from the Foundation will assist the Stanford administration and the Department of Speech and Drama to act on their conviction that the role of a professional company on campus is not only to insist on excellence of production, but also to become an integral part of the teaching faculty. The senior members of this professional theatre company, who will be selected primarily on artistic grounds without regard to academic credentials, will concentrate to begin with on the intensive training of some twenty carefully selected students — would-be actors, directors, and designers holding a B.A. or its equivalent — who must

also take courses in academic areas associated with a major field in theatre arts. Teaching will be conducted in a direct, personal way and steadily associated with practice in the preparation and rehearsal of plays. The full professional company will at the same time give regular performances on the Stanford campus, emphasizing new approaches in directing, acting, and design. The university and the Foundation hope that course work will be made more meaningful and university theatre activity enriched by the presence on campus of highly regarded professionals.

While the continuity and stimulation of a university environment is held important, the Foundation is always ready to consider limited assistance toward the further development of outstanding professional organizations and unusually gifted individuals not connected with educational institutions. The Seattle Repertory Theatre, organized in 1963, is an example: the Foundation's grant was made last summer for the specific purpose of allowing the company eight weeks of intensive work under its artistic director, before the beginning of a new season, to create for themselves a working methodology — a coherent style of acting that would convey its own philosophy for the theatre. The dramatic expressions which came from these sessions were put on tape and film so that they are available for study by present and future members of the company. Another example is the grant-in-aid made to Kenneth Brown, the young writer whose play "The Brig" stimulated much interest when produced off Broadway and abroad, to allow him to write full time under conditions of his own choosing. Relatively modest assistance such as this can be productive out of all proportion to the sums involved, when made available to an uncommonly creative and purposeful individual or group.

From the Foundation's concern for creativity in the theatre evolved an interest in helping to develop larger and more perceptive audiences. Drama criticism and scholarship in the daily press and in specialized periodicals can stimulate new audiences and provide a broader frame of reference for the appreciation of plays and playwrights new and old. The *Tulane Drama Review*, published by Tulane University, New Orleans, is one of the leading journals in its field, with a special interest in contemporary drama. The Foundation was able to help broaden the circulation of this important publication by making possible an



arrangement whereby each of the 4,600 members of the American National Theatre and Academy (ANTA) will receive the *Tulane Drama Review* as part of their membership.

### CREATIVE WRITING

As part of its support to the humanities, The Rockefeller Foundation has for many years taken advantage of unusually promising opportunities to encourage creative writing and literary criticism. It has, for example, assisted a number of "little magazines," enabled outstanding poets to give readings, made travel grants to writers, and helped support creative writing centers in Mexico, Canada, and Chile. Now that cultural development has been established as one of its main efforts in the United States, the Foundation during the past year has sought to determine the main elements of a more systematic program to assist professional writers within its humanities and social sciences program.

After consulting with many outstanding writers and educators, the Foundation believes that assistance to creative writers to enable them to pursue goals of their own choosing is important to the continued development of literature and literary scholarship in America. The Foundation has therefore evolved a modestly scaled but highly flexible program so structured as to meet a number of needs. Not only well-established writers, but also the writer with a limited but distinguished record of publications as well as the outstanding undergraduate of exceptional promise, are eligible for nomination by a carefully chosen body of writers, editors, and educators. Assistance to the necessarily few poets, novelists, essayists, and literary critics selected by the Foundation from these and other nominations will be determined largely on the basis of the individual's needs and plan of work. The main purpose is to free writers from other obligations so that they may write full time; but other plans, such as travel, a course of study, or an association with an organization or a member of one of the professions, may be encouraged.

As the Foundation's officers and consultants defined the new program toward the close of the year, two writers were enabled to devote their full time to novels in progress. Ralph Ellison, author of *Invisible Man*, took up residence at Yale University as a special fellow, and Susan Sontag, critical essayist for *Partisan Review* and a philosophy

instructor at Columbia University, entered into a similar association with Rutgers University. During 1965 the Foundation hopes to extend its efforts to encourage unusually creative or promising men and women, and to give serious consideration to means of stimulating or strengthening creative writing and related liberal arts programs in outstanding American universities.

A list of grants made under the Cultural Development program appears on pages 128 to 130.

## ALLIED INTERESTS

FOR MANY YEARS the Foundation was organized by divisions, each of which dealt with programs or projects in its special fields of interest, such as medicine, public health, natural sciences, agricultural sciences, social sciences, and humanities. Emphasis is now placed on the development of programs in which several disciplines are associated for maximum effectiveness, focused on the five objectives described previously.

The Foundation recognizes the necessity of disengaging itself gradually and realistically from projects of long-standing interest that may be expected to continue independently of Foundation assistance. All the grants reported under the heading "Allied Interests" were made for work in the sciences and humanities in fulfillment of commitments entered into before the reorientation of the Foundation's program.

### HUMANITIES AND SOCIAL SCIENCES

International relations is an area to which the Foundation has devoted major attention over the past decade, and among the 1964 grants are a number which aid projects for the training of professional personnel and the advancement of knowledge through research in this field.

One of the grants assisted the United Nations to acquire a building for its projected Training and Research Institute, planned to function in the creation of an international civil service of high quality. The opportunity to purchase the leasehold of a suitable building located just across the street from UN headquarters came at a moment when plans for the institute were being matured, and the funds from the Foundation enabled the UN to exercise promptly its option on the property. This acquisition represents the first real estate secured by the UN since the gift of the headquarters site made by the late John D. Rockefeller, Jr.

Member nations and other agencies have already given more than \$2 million, and pledged an equivalent amount, toward the operating costs of the institute.

The need for a training and research agency associated with the UN has been apparent for more than a decade; in 1963 the General Assembly instructed the Secretary-General to take the necessary steps to establish such a unit. Its primary objective will be to help train the diplomatic and administrative staffs of developing countries for service in the UN and with their own governments.

Training courses will be offered to junior officers of the national missions and to mid-career officers in the international civil service. Junior officers will receive orientation in the scope and character of UN activities, while the mid-career officers will pursue studies designed to fit them for broader responsibilities; in this latter aspect the institute will function as a staff college.

Another grant aided international training in a specialized field. For some years the Hague Academy of International Law, in the Netherlands, has offered courses to help increase the number of qualified international lawyers. The plan operates through the academy's Center for Studies and Research in International Law and International Relations, which each summer since 1957 has enrolled about thirty younger lawyers for six weeks of intensive research and seminar study. The Foundation, which has been aiding this and allied activities at the Hague Academy since 1954, made a new grant in 1964 that will extend its support of the training center for about seven years.

A number of grants will support investigations by scholars in international relations and give research experience to graduate students and postdoctoral investigators.

At Columbia University the School of International Affairs will continue its plan of inviting young scholars from the United States and abroad to come to New York for up to a year's residence to pursue individual studies in problems of international organization. This project began in 1956 and has resulted in the preparation and publication of a number of important books on such subjects as the United Nations Charter, Korea and the United Nations, the United Nations in relation to other international organizations, the General Assembly, and the United Nations and outer space. The Foundation, which has contributed to the support of the plan since its inception, renewed its aid with a grant that will continue in force until 1969.

National armaments and strategic problems are the topics to which scholars connected with the Institute for Strategic Studies, in London, have been devoting their main attention since 1958. Their interests are now increasingly being directed toward problems of peacekeeping and international security in and among the countries of Asia, Africa, and Latin America. In all its projects, the institute acts in collaboration with universities and research centers in the countries concerned, and offers training opportunities to junior scholars through participation in the studies. A new grant from the Foundation will assist this work until 1969.

Harvard University invites diplomats and senior government officials from the United States and abroad, particularly from developing countries, to come to Cambridge as visiting fellows in the university's Center for International Affairs. The fellows pursue studies designed to fit their individual interests. They attend seminars offered by Harvard faculty who are members of the center and by distinguished visiting scholars, and the fellows in turn help the center organize study and discussion projects on subjects about which they have particular knowledge. A number of the visitors have used part of their fellowship period to write and publish, and all of them give evidence that from their exposure to the intellectual community of the university they have derived great benefits for their work in their countries' educational and political development. A 1964 grant will continue Foundation support of the project until 1969.

Staff members of the Center for Foreign Policy Research of Johns Hopkins University, as the name implies, concentrate on problems of foreign policy, both the general theory of international politics and practical issues such as those involved in military-political affairs, especially as these concern NATO and the Atlantic Community. A new, final grant from the Foundation is being used by the center, which is located in Washington, D.C., to extend its work through the creation of additional staff and visiting appointments and to increase the number of assistantships for predoctoral students who will assist in the research as part of their work toward the degree. The funds will also make it possible for the center to invite a senior visiting scholar each year either from the United States or from a foreign country.

Substantial grants will aid two distinguished American institutions

to strengthen and expand their work in international relations. One is the Brookings Institution in Washington, D.C., the independent national organization devoted to nonpartisan research and publication in economics, government, foreign policy, and the social sciences. The Foundation's grant will provide new research professorships in international relations, international economics, and international development. Scholars from universities and colleges throughout the United States and from institutions overseas will spend up to a full year in Washington engaged either in independent research or in studies being carried on within the context of the Brookings program.

The second is the Council on Foreign Relations, in New York, a private organization serving the causes of understanding, education, and leadership on questions of foreign policy and international affairs. The publications of the council's staff of professional research scholars — over eighty books in the past decade — have been of worldwide usefulness in academic and governmental communities in both developed and developing countries. The Foundation's grant will enable the council to add to its staff specialists in such fields as the economics of development, and Asian, African, or Latin American affairs.

The Rockefeller Foundation, with the aid of consultants who are specialists in the areas involved, directly administers two programs of assistance to individual scholars in the fields of international relations and constitutional democracy. The grants made under the two programs are flexible in amount and period, and are designed in each instance to assist the scholar in an immediate and practical manner. Allocations made in 1964 will be found on pages 143 to 147.

Now in its fourth year, the international relations program encourages research on emergent problems of foreign policy, diplomatic analysis and history, and theoretical studies. Awards under this program in 1964 totaled \$238,156 for the use of 32 scholars at institutions in the United States, Canada, Israel, England, Australia, Italy, and Switzerland. It is hoped that in these three broad areas the studies will contribute to greater understanding of international relations in the world today.

The program in constitutional democracy is based on the premise that the inner workings even of successful democracies must be better

understood through searching out and clarifying, in terms of practical application, the values and standards essential to free order. Studies on two types of problems are emphasized: the effect of contemporary pressures on the classical elements of constitutional democracy and the ways in which these elements change to meet the pressures, and the constitutional issues deriving from new patterns of governmental intervention and organization. The project is now in its second year. In 1964 grants totaling \$105,350 were made to 13 scholars to assist the completion of studies in these areas.

#### MEDICAL AND NATURAL SCIENCES

For many years The Rockefeller Foundation has made numerous grants for the improvement of professional education in medicine, nursing, and allied fields, and in the sciences upon which these disciplines rest, particularly to institutions in overseas countries. Following the regrouping of interests into interdisciplinary programs aimed at five major objectives, attention to professional education is being focused on the institutions included in the Foundation's university development plan. The transition is, however, a gradual one, and in 1964 six grants were made to other universities where the Foundation has previously been of assistance.

Research and teaching in the medical and natural sciences in two Argentinian institutions received renewed support. The Faculty of Medical Sciences of the University of Cuyo, in Mendoza, will purchase teaching and research equipment, increase its library holdings, develop the premedical curriculum, and bring foreign personnel into faculty positions with the help of a grant which continues one given in 1962 for similar purposes. At the University of Buenos Aires new funds will aid research in the Faculty of Exact and Natural Sciences, and help defray the cost of a new electron microscope for the Faculty of Medical Sciences.

The first federal institution in Brazil to adopt the principle of full-time posts in all the basic science departments, the Faculty of Medicine of the University of Minas Gerais, has steadily strengthened these departments over the past eight years. A new grant in 1964 continues Foundation support of this development, particularly in the departments of physiological sciences and pathology.



*Right*, scientists associated with the Department of Biochemistry of the medical school of the University of Minas Gerais, Brazil, examine cultures of the snail host of one type of schistosomiasis as part of a research program at the university on this important parasitic disease. *Below*, campus scene at the University of the Andes, in Bogotá, Colombia.

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The University of the Andes in Bogotá, Colombia, one of the few privately controlled institutions in South America, has consistently maintained academic standards which match those in the United States and which allow its students to transfer to North American schools with full credit. It also pioneered in setting up a two-year premedical curriculum whose graduates are admitted directly to Colombian medical schools, particularly to the one at the University of Valle. The Foundation, which has assisted the University of the Andes since 1951, made a new grant in 1964 which will chiefly support research and teaching in the Department of Biology.

The establishment of a full graduate curriculum in chemistry and biochemistry by the National University of Mexico makes it possible for the first time for Mexican and other Latin American students to earn master's degrees and doctorates in these fields without going abroad for even a part of their work. The curriculum is the result of coordination among three units in the university and two in affiliated institutions. The Foundation has made grants to four of the five units since 1941, and in 1964 appropriated funds for the coordinated graduate curriculum.

The sixth grant was to the Seth Gordhandas Sunderdas Medical College in Bombay, India. From its founding forty years ago the aim of the college has been to create an all-Indian staff, and since 1956 it has worked to install full-time faculty in all the science and clinical departments. A strong program of research has also been inaugurated. A new grant, chiefly for the purchase of equipment requiring foreign exchange, continues Foundation assistance begun in 1953.

### *Virus research*

Since 1949 The Rockefeller Foundation has operated a project for the study of viruses that are carried by mosquitoes, ticks, and other arthropods (the arboviruses); the work is presently conducted by a staff of about twenty scientists who are assigned to cooperating laboratories in five countries and to a central laboratory that has recently been moved from New York City to Yale University. A great deal of information about these disease agents has now been accumulated and their importance to public health is well established. In the United

States, various epidemics, some quite serious, have acquainted the general public with the names of such arbovirus diseases as eastern encephalitis and St. Louis encephalitis, and alerted health authorities to the need for preventive as well as control measures.

When the program began, fewer than thirty arboviruses were known, and only one, yellow fever, had been intensively investigated. The number isolated and identified has now grown to over 170, the families or groups into which they fall are outlined, the life cycles and host ranges of a number have been fairly well mapped, and the physical and chemical properties of some of them revealed. The field laboratories have contributed knowledge about the presence of arboviruses in a given geographical area and the association of the activity of the virus with its natural vector and with disease in man and animals. The surveys have usually been followed by concentrated study of one or more agents found to be of particular importance in a given area; the very intensive study of Kyasanur forest disease virus in tropical India is an example. The central laboratory functions primarily to determine the relation of the viruses isolated in field studies to the world population of arboviruses as represented in its reference collection; these relationship studies have grown progressively more refined as the techniques required for this special group of viruses have been perfected.

In December, 1964, the central laboratory was moved from quarters made available in the Rockefeller Institute in New York to the campus of Yale University in New Haven, where it is incorporated in the School of Medicine and located in a new building constructed for the Department of Epidemiology and Public Health; it is now designated as the Yale Arbovirus Research Unit. The relocation is felt to be especially advantageous. The scientists in the laboratory can now associate their basic research with graduate teaching, backstopped by the faculty and facilities of a university and medical school. The close connection of the virus research program with the epidemiological interests of the department will broaden the potential of the research program and provide helpful academic background for the numerous scientists who come to the laboratory for special training in arbovirus methodology. The scientific staff of the central laboratory have received appropriate academic appointments at Yale and will participate also in the university's normal academic program.

The new association with Yale University is in line with the Foundation's policy of relating all its virus research units with academic institutions. The newly opened field laboratory in Nigeria is an integral part of the Faculty of Medicine of the University of Ibadan. Virus research staff in Colombia work in the Faculty of Medicine of the University of Valle. The one field laboratory in the United States is operated in close conjunction with the School of Public Health of the University of California in Berkeley. The laboratory in Port-of-Spain, Trinidad, is now completely under the administration of the University of the West Indies; the one in Belém, Brazil, works with the Medical School in Belém and with the University of Brazil in Rio de Janeiro; and the Virus Research Centre in Poona, India, with the University of Poona and with the All India Institute of Medical Sciences in New Delhi. This policy also makes for closer linkage between the Foundation's own research program and its activities for strengthening emerging centers of learning in developing countries.

### *Health centers*

At several schools of medicine outside the United States the Foundation maintains a field staff of about fifteen members who contribute to the Foundation's major programs in a number of ways. They hold academic posts and assist in curriculum and other planning for university development; they conduct nutrition studies as a part of the campaign for the conquest of hunger; they seek demographic information in the program on population; and they are concerned with the special problems of training medical and paramedical personnel for work in developing countries.

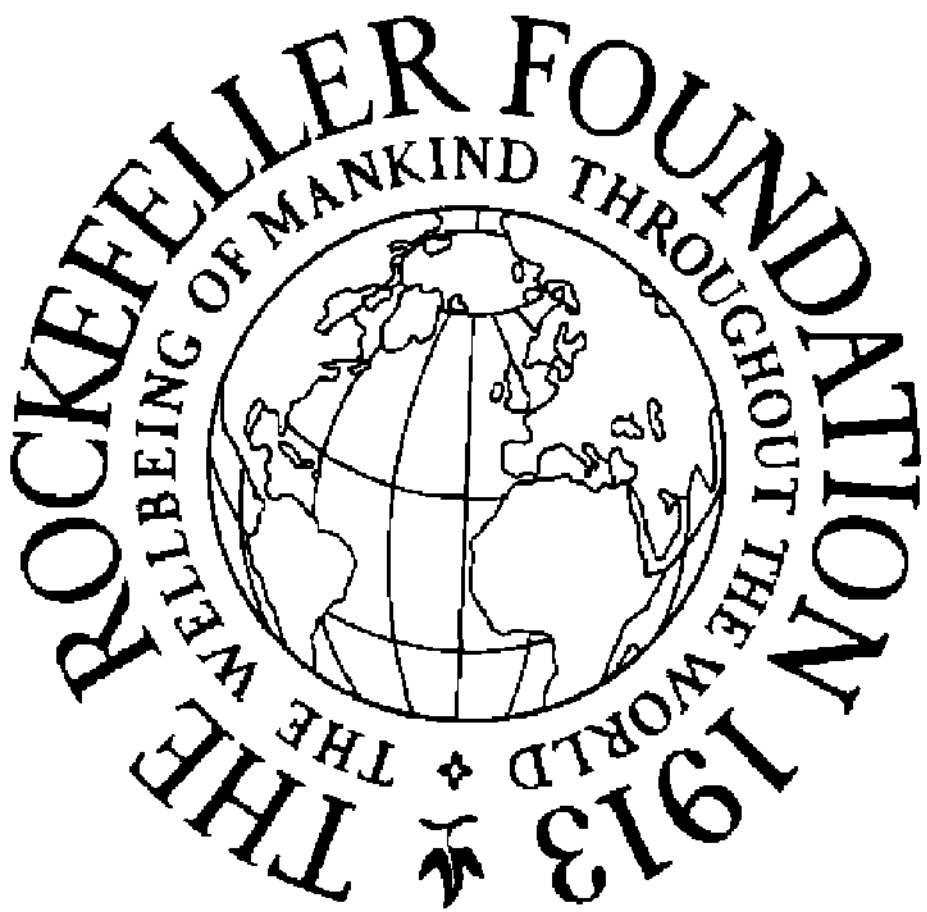
In Colombia, for example, four staff members in the medical and natural sciences hold visiting appointments at the University of Valle: one is a consultant on medical education; one advises the School of Nursing and another the Faculty of Engineering; the fourth assists at a community health center, run by the Faculty of Medicine, in the nearby village of Candelaria.

The educational function of the Candelaria health center is to train interns from the University of Valle who must secure experience in rural medicine under the official requirements for licensure. It also functions as a community center, seeking to be of broad usefulness in

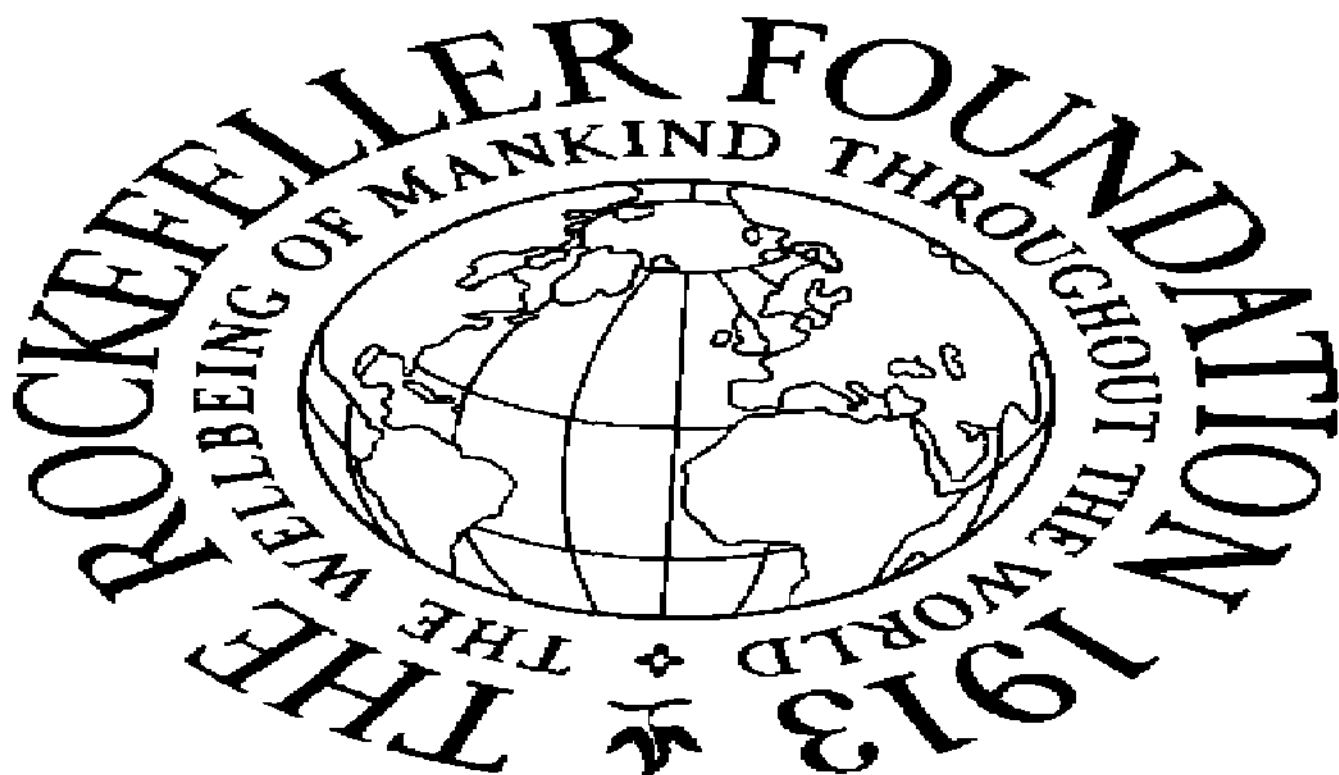


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The activities of the Foundation's arbovirus research are many and varied. *Right*, a mist net for capturing birds seventy feet above the forest floor is used by the Trinidad Regional Virus Laboratory; the birds, of kinds seldom seen at ground level, are examined for parasites and their blood tested for viruses to help explain how these disease agents spread. *Upper right*, ticks also carry viruses, for example Kyasanur forest disease virus in India. The Poona Virus Research Centre staff have examined 5,000 people in Mysore State; at least 10 per cent of them were in contact with the implicated tick. *Lower right*, a Foundation scientist captures Amazonian jungle mosquitoes near Belém, Brazil, to be tested for viruses; he is using a suction fan driven by a toy airplane motor and attached to a net.



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public health and general development as well as in curative medicine. Soon after the center began operations, it became apparent that not nearly enough was known about many aspects of community needs. A number of demographic, nutritional, and epidemiological studies have therefore been undertaken and much information — some of it startling — has been accumulated. Malnutrition among young children, for instance, is much more prevalent than previously suspected, and the birth rate is significantly higher than the officially reported figure. On the basis of such information, programs for the treatment and prevention of malnourishment among preschool children, for improved obstetrical care, for community sanitation, and for the training of auxiliary health workers, among others, were launched. Currently, the groundwork is also being laid for the possible cooperation of the center in family planning projects. All these activities are related as closely as possible to the training provided for medical students in the outpatient and hospital services of the health center, and much attention is given to revising the curriculum and teaching methods used with them. The Candelaria project, now in its fifth year, is attracting much attention in professional circles in Colombia and neighboring Latin American countries.

Other units of the Foundation's field staff are associated, in ways comparable to those in Colombia, with medical institutions in New Delhi and Trivandrum, India; in Bangkok, Thailand; in Manila, the Philippines; in Uganda in East Africa; and in Ibadan, Nigeria. Those in New Delhi, Uganda, and Nigeria also cooperate with rural health centers with much the same objectives as the one in Colombia.

A list of grants made in connection with Allied Interests appears on pages 131 to 147.

## STUDY AWARDS

THE ROCKEFELLER FOUNDATION'S study awards are integrated with its main areas of interest. Through its fellowships and scholarships, the Foundation seeks to train personnel and to advance knowledge in the medical and natural sciences, the agricultural sciences, and the humanities and social sciences, with the aim of bringing highly-trained human resources to bear on the basic problems which limit man's well-being. Awards are made on an international basis to outstanding men and women who have shown promise of making important contributions to their fields of study in their native countries.

During 1964 a total of 703 persons held Foundation fellowships and scholarships; 457 awards that began in previous years continued active into 1964, and 246 new awards became active during the year. Their distribution by program is as follows:

	STUDY AWARDS FROM PREVIOUS YEARS CONTINUED INTO 1964	NEW AWARDS IN 1964	NUMBER OF AWARDS ACTIVE IN 1964
Agricultural Sciences	223	115	338
Medical and Natural Sciences	125	72	197
Humanities and Social Sciences	109	59	168
	<u>457</u>	<u>246</u>	<u>703</u>

In addition to the fellowships and scholarships awarded and administered directly by The Rockefeller Foundation, several organizations have awarded similar fellowships with funds contributed in 1964 and previous years by the Foundation. The organizations administered a total of 90 fellowships provided for by Foundation funds during 1964:

British Medical Research Council	6
Population Council	
Demographic	14
Medical	4
Social Science Research Council	
Predoctoral and Postdoctoral	58
Political Theory and Legal Philosophy	8
	<u>90</u>

Rockefeller Foundation fellows and scholars in 1964 came from 52 countries and two international organizations:

	PREVIOUS AWARDS	NEW AWARDS		PREVIOUS AWARDS	NEW AWARDS
Algeria	1	—	Netherlands	1	—
Argentina	13	11	Nicaragua	—	1
Australia	2	—	Nigeria	22	16
Belgium	1	—	Norway	1	1
Bolivia	1	—	Pakistan	7	—
Brazil	26	17	Panama	—	1
Chile	34	15	Peru	22	8
Colombia	82	32	Philippines	38	26
Congo, the			Poland	13	6
Republic of the	1	—	Rhodesia	—	2
Costa Rica	2	3	Sudan	1	3
Denmark	2	—	Taiwan (Republic		
Ecuador	4	4	of China)	—	2
El Salvador	1	—	Tanzania	—	1
Ethiopia	8	3	Thailand	15	11
France	4	—	Turkey	9	2
Germany	1	1	Uganda	4	5
Ghana	4	—	United Arab		
Great Britain	2	4	Republic	5	1
Guatemala	3	1	United States	6	—
Haiti	—	1	Uruguay	—	1
Honduras	2	1	Venezuela	1	—
India	35	20	Vietnam	1	—
Indonesia	3	1	Inter-American		
Iran	2	—	Institute of		
Japan	22	6	Agricultural		
Kenya	2	4	Sciences	4	4
Lebanon	—	3	World Health		
Malawi	—	1	Organization	2	2
Malaysia	—	2			
Mexico	46	22		457	246
Morocco	1	1			

The Rockefeller Foundation made available a total of \$3,625,000 for its fellowship and scholarship activities during 1964, and appropriated \$3,700,000 for the awarding of fellowships during 1965.



The Foundation in 1964 continued to appropriate funds for allocation in the form of unrestricted grants to institutions where Foundation fellows and scholars are engaged in study and research. Recognizing that the disparity between universities' expenses and their income from tuition and fees is most apparent at the level of postgraduate study, the Foundation, since 1958, has made available funds to be disbursed in units of \$1,000 for each full year a fellow spends at a university and \$500 for each half year. The grants are in addition to tuition and other fees paid by the Foundation through its fellowship and scholarship awards. Under this program in 1964, the Foundation sent funds amounting to \$458,500 to 105 institutions in the United States and foreign countries.

Fellows and scholars whose awards became active in 1964 are listed by name and country on pages 151 to 172.

## ORGANIZATIONAL INFORMATION

### MEETINGS

The annual meeting of the corporation and a regular stated meeting of the Board of Trustees were held on April 1; a stated meeting of the Board of Trustees was held on November 30 and December 1. Six regular meetings of the Executive Committee of the Trustees were held to take actions within the general policies approved by the Board.

### TRUSTEES AND PRINCIPAL OFFICERS

At the meeting of the Board of Trustees on April 1, Dr. Frederick Seitz, president of the National Academy of Sciences and head of the physics department at the University of Illinois, was elected to the Board to fill the vacancy created by the retirement of Dr. Detlev W. Bronk in June, 1963.

Mr. Edward Robinson, Special Assistant to the President and former Treasurer, retired at the end of January after nearly 32 years of service. Mr. Robinson came to the Foundation in 1932 as Assistant Treasurer and became Treasurer of the Foundation and of the General Education Board in 1938.

Miss Flora M. Rhind, Secretary of the Foundation since 1948, retired on June 30. During her distinguished career in professional philanthropy, Miss Rhind has served three Rockefeller organizations: the Laura Spelman Rockefeller Memorial, the General Education Board, and the Foundation. At the General Education Board she was successively secretary for general education, Assistant Director, Secretary from 1952 to 1961, and Vice-President; in 1960 she was also elected a Trustee. In her years as Secretary of The Rockefeller Foundation, she carried heavy responsibilities for both program and administrative activities and made an outstanding contribution to the Foundation's expanding operations. Upon her retirement, Miss Rhind was appointed Special Assistant to the President.



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MISS FLORA M. RHIND

Secretary of The Rockefeller Foundation, retired.

Mr. J. Kellum Smith, Jr., Assistant Secretary, was elected to succeed Miss Rhind. Prior to joining the Foundation in 1962 as Assistant to the President, Mr. Smith was Assistant Secretary of the John Simon Guggenheim Memorial Foundation.

Dr. Robert S. Morison, Director for Medical and Natural Sciences since 1959, resigned on September 30 to become head of the newly established Division of Biology at Cornell University. Dr. Morison joined the Foundation in 1944 as Assistant Director of the Medical Sciences Division, was named Associate Director in 1948, and in 1955 became Director for Biological and Medical Research.

Dr. John M. Weir, Associate Director for Medical and Natural Sciences, was elected to succeed Dr. Morison as Director. Dr. Weir served on the staff of the International Health Division and of its successor Division of Medicine and Public Health from 1939 to 1954, when he became Assistant Director, and subsequently Associate Director for Medical Education and Public Health.

Dr. Joseph E. Black was elected Director for Humanities and Social Sciences effective November 1. Since 1962 Dr. Black has been a consultant, and then a field staff member on assignment in Africa. Prior to that time he was chairman of the Department of Government at Miami University, Oxford, Ohio. Until Dr. Black's election as Director, Dr. Kenneth W. Thompson, Vice-President, served as acting director of the humanities and social sciences program.

The appointment of Norman Lloyd, Dean of the Oberlin College Conservatory of Music, as Director for Arts was authorized to take effect not later than February 1, 1965.

**GRANTS • 1964**



# TOWARD THE CONQUEST OF HUNGER

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## INTERNATIONAL

### ROCKEFELLER FOUNDATION Cooperative Program in Agricultural Sciences:

Salaries, travel, and other expenses of Foundation field staff \$1,857,900

#### Programs and field offices

Chile	\$ 85,000	
Colombia	200,000	
India	439,350	
Mexico	184,000	
Philippines	390,000	
Thailand	40,000	1,338,350

Other agricultural programs 135,000

TOTAL—Appropriations for 1965 \$3,331,250

## ARGENTINA

DR. HECTOR ROMUALDO CAMBEROS, University of Buenos Aires: research in mineral deficiency diseases at the University of Florida, Gainesville; \$3,050;

INSTITUTE OF BIOCHEMICAL INVESTIGATIONS, Buenos Aires: salaries and equipment; \$9,000 for a three-year period;

BENITO PETERSEN, National Institute of Agricultural Technology, Buenos Aires: to visit wheat breeding centers in Latin America; \$200;

## AUSTRALIA

### COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION:

#### *Armidale*

Dr. John Lionel Wheeler; to investigate pasture and fodder crop utilization in North and South America; \$1,925;

#### *Canberra*

Dr. Raymond Milton Moore; to study, in the United States, computer analysis of plant ecological data; \$2,700;

P. C. KERRIDGE, Glen Aplin: to study forage crop production methods at Oregon State University, Corvallis; \$2,170;

DR. LYLE B. THROWER, School of Botany, University of Melbourne: to observe plant pathology research in the United States; \$925;

UNIVERSITY OF QUEENSLAND, Brisbane: studies in marine biology at the Heron Island Research Station, under the direction of the Great Barrier Reef Committee; \$47,000 for a three-year period;

WAITE AGRICULTURAL RESEARCH INSTITUTE, University of Adelaide:

Equipment for research on soil-borne fungal diseases; \$15,000;

Dr. Colin Malcolm Donald, Department of Agronomy; to visit research centers in the Far East, North America, and Europe; \$4,300;

DR. N. H. WHITE, Department of Agriculture, University of Sydney: to visit plant pathology centers in Europe; \$3,270;

## CANADA

DR. B. CHARLES JENKINS, Department of Plant Science, University of Manitoba, Winnipeg: to visit wheat improvement centers in Mexico; \$1,765;

## CEYLON

DR. K. A. D. PETER S. SENEVIRATNA, Department of Veterinary Science, University of Ceylon, Peradeniya: to visit research centers in the United States; \$1,200;

## CHILE

EDUARDO MELENDEZ, Ministry of Agriculture, Santiago: to attend the International Training Centre for Post-Graduate Soil Scientists, Ghent, Belgium, \$2,500;

ROCKEFELLER FOUNDATION International Cooperative Program in Agricultural Sciences: Chilean program; *see International, above*;

UNIVERSITY OF CHILE, Santiago:

Dr. Fernando Bosch, School of Veterinary Medicine; travel in the United States; \$2,725;

Dr. Roberto Parada Navarro, School of Veterinary Medicine; travel in the United States; \$2,700;



Dr. Eduardo Porte, Department of Animal Sciences; travel in the United States; \$1,050;

Dr. Ricardo Sepulveda, School of Agronomy; travel in the United States; \$1,050;

#### UNIVERSITY OF CONCEPCION, Chillán:

Mrs. Norma V. de Ramírez, Faculty of Agronomy; to visit agricultural libraries in Latin America and the United States; \$3,960;

Waldo Espinoza Garrido, School of Agronomy; to study soil science at the University of Minnesota, St. Paul; \$3,300;

### COLOMBIA

ROCKEFELLER FOUNDATION International Cooperative Program in Agricultural Sciences: Colombian program; *see International, above*;

### DOMINICAN REPUBLIC

#### UNIVERSITY OF SANTO DOMINGO:

Dr. Jesús María Alvarez Vicioso, Faculty of Veterinary Medicine; to visit veterinary parasitology centers in Guatemala and Peru; \$3,000;

Dr. Carlos Lopez Domínguez, Faculty of Veterinary Medicine; to participate in the veterinary physiology program at the University of San Marcos, Lima, Peru; \$3,000;

Dr. Jaime Viñas Román, Faculty of Veterinary Medicine; to visit clinical medicine centers in Guatemala and Peru; \$1,800;

### GUATEMALA

MARIO A. MARTINEZ G., Faculty of Agronomy, University of San Carlos: to visit experiment stations in Mexico and the United States; \$1,825;

DR. EUGENIO SCHIEBER H., National Institute of Agriculture and Animal Husbandry, La Aurora: to investigate maize disease problems in Africa; \$4,140;

### HONDURAS

PAN AMERICAN AGRICULTURAL SCHOOL, Tegucigalpa: faculty study and travel, and graduate scholarships; \$100,000 for a five-year period;

## INDIA

CHRISTIAN MEDICAL COLLEGE, Vellore: research in human nutrition; \$80,000 for a two-year period;

SURESH KESHAO DEO, The Rockefeller Foundation Indian Agricultural Program, New Delhi: to study agricultural engineering at the University of North Carolina, Raleigh; \$800;

### INDIAN AGRICULTURAL RESEARCH INSTITUTE, New Delhi:

Dr. Narendra Chandra Pant; to visit agricultural entomology centers in Europe, North and South America, and the Far East; \$6,450;

Dr. Daya Nand Srivastava; to visit plant pathology centers in Europe, the United States, and the Far East; \$5,850;

Dr. Syamaprasad Raychaudhuri; to visit plant pathology centers in Europe, the United States, and the Far East; \$5,750;

Dr. Rajat De; to observe plant analysis techniques in Europe and the United States; \$5,525;

INDIAN COUNCIL OF MEDICAL RESEARCH, New Delhi: equipment for the Nutrition Research Laboratories, Hyderabad; \$58,000 for a two-year period;

INDIAN INSTITUTE OF SCIENCE, Bangalore: to enable Dr. Kenneth R. Woods, Cornell University Medical School, New York, to assist in a protein nutrition program; \$15,000;

DR. PRAN NATH MEHRA, Botany Department, Panjab University, Chandigarh: to visit cytological centers in Europe, the United States, and Japan, and attend the Tenth International Botanical Congress in Edinburgh, Scotland; \$3,500;

MAHESH CHANDRA PANDEY, Coordinated Maize Improvement Scheme, New Delhi: to accept an appointment at the University of Minnesota, St. Paul; \$815;

PUNJAB AGRICULTURAL UNIVERSITY, Ludhiana: development of plans for a Home Science College; \$15,000 for a two-year period;

ROCKEFELLER FOUNDATION International Cooperative Program in Agricultural Sciences: Indian program and field office; *see International, above*;

DR. PRITAM SINGH SABHARWAL, Department of Botany, University of Delhi: to accept an appointment at the University of Pittsburgh, Pennsylvania, and to attend the Tenth International Botanical Congress in Edinburgh, Scotland; \$1,350;

## INDONESIA

UNIVERSITY OF INDONESIA, Djakarta: studies at the Institute of Nutrition Sciences, Columbia University, New York, by Dr. Djaeni Sediaoetama, Faculty of Medicine; \$2,103;

## IRELAND

DR. P. M. AUSTIN BOURKE, Irish Meteorological Service, Dublin: research in Europe on the late blight of potatoes; \$1,000;

## ISRAEL

DR. AMOS DOVRAT, Faculty of Agriculture, Hebrew University, Rehovot: to visit agricultural centers while in the United States; \$900;

## JAPAN

DR. T. MIYAKAWA, Tokushima Horticultural Experiment Station, Katsuura: to visit research institutions in the United States; \$1,700;

NATIONAL INSTITUTE OF AGRICULTURAL SCIENCES, Tokyo: to enable Dr. Tosi Takeida to serve as consulting virologist at the International Rice Research Institute, Los Baños, Philippines; \$10,000;

NATIONAL INSTITUTE OF GENETICS, Misima: studies of the origin of cultivated rice; \$42,000 for a three-year period;

MASAO NISHIURA, Horticultural Research Station, Shimizu City: to visit citrus research centers in the United States; \$2,365;

DR. HISATOMO OOHARA, Department of Forage Crops and Animal Nutrition, Obihiro Zootechnical University: to visit research centers in Europe and North America; \$5,200;

## KENYA

UNIVERSITY COLLEGE NAIROBI: conference in Nairobi of agricultural economists; \$3,000;

## MEXICO

### NATIONAL INSTITUTE OF AGRICULTURAL RESEARCH:

Inter-American seminar in Mexico City on agricultural communications; \$11,000;

Meeting in Mexico City of the Potato Association of America; \$10,000;

Dr. Javier Cervantes; to visit potato improvement projects in Colombia; \$880;

NATIONAL INSTITUTE OF NUTRITION, Mexico City: research in biochemistry and nutrition; \$26,000 for a two-year period;

NATIONAL SCHOOL OF AGRICULTURE, Chapingo: operating costs of the Graduate School; \$300,000 for a five-year period;

ROCKEFELLER FOUNDATION International Cooperative Program in Agricultural Sciences: Mexican program; *see International, above*;

## NETHERLANDS

### STATE AGRICULTURAL UNIVERSITY, Wageningen:

Advanced training for rice scientists; \$4,810 for a two-year period;

Willibrordus J. A. van Marrewijk; training in agricultural entomology at the National Institute of Agricultural Research, Mexico City, Mexico; \$1,800;

## PERU

AGRARIAN UNIVERSITY, La Molina, Lima: food crop and livestock research and teaching, in cooperation with the Agricultural Research and Extension Service; \$340,000 for a three-year period;

AGRICULTURAL RESEARCH AND EXTENSION SERVICE, Ministry of Agriculture, Lima: food crop and livestock research, in cooperation with the Agrarian University; \$260,000 for a three-year period;

DR. MAURICIO SAN MARTIN, rector, University of San Carlos, Lima: to visit universities in the United States; \$1,300;

## PHILIPPINES

FRANCISCO I. HILARIO, Department of Horticulture, University of the Philippines, Los Baños: to visit experiment stations in the United States; \$3,500;

INTERNATIONAL RICE RESEARCH INSTITUTE, Los Baños: production of supplements to the *International Bibliography of Rice Research*; \$10,000;

ROCKEFELLER FOUNDATION International Cooperative Program in Agricultural Sciences: toward operating costs of the International Rice Research Institute, Los Baños; see *International, above*;

## POLAND

COLLEGE OF AGRICULTURE, Cracow: virological equipment; \$1,315;

DR. BARTŁOMIEJ MICZULSKI, College of Agriculture, Lublin: to extend his tour of observation in Europe; \$400;

VETERINARY INSTITUTE OF PULAWY: purchase of a fluorimeter; \$7,600;

## SUDAN

### UNIVERSITY OF KHARTOUM:

Dr. Abdel Gadir Hassan Khattab, Faculty of Agriculture; to visit nutrition centers in the United States; \$4,300;

Dr. Tarakkad Venkitakrishna Venkatraman, Faculty of Agriculture; to visit entomological research centers in the United States and to attend the Twelfth International Congress of Entomology in London, England; \$3,950;

Ali Mahayad Bannaga, Faculty of Agriculture; to observe agricultural planning in Europe and the United Arab Republic; \$3,100;

Dr. E. A. K. El Saeed, Faculty of Agriculture; to visit seed production centers in Europe and the United Arab Republic; \$3,025;

Sam Ibrahim El Khatim, Faculty of Agriculture; travel in East Africa and attendance at an agricultural economics seminar in Nairobi, Kenya; \$1,725;

Francis Coleman, Department of Agricultural Engineering; to attend the Sixth International Congress of Agricultural Engineering at Lausanne, Switzerland; \$1,100;

## SWITZERLAND

DR. JACOB KLINGLER, Federal Research Station for Arboriculture, Viticulture, and Horticulture, Wädenswill: to participate in a symposium at Boulder, Colorado, on animal behavior, and to visit nematology laboratories in the United States; \$1,890;

## THAILAND

PROFESSOR BIMALA KALAKICHA, Faculty of Science, Chulalongkorn University, Bangkok: to observe academic organization in Europe and the United States; \$1,325;

MINISTRY OF AGRICULTURE, Bangkok:

Khid Suvarnasuddhi; to visit pomological research centers in the Far East, North and South America, Europe, and the Middle East; \$4,400;

Miss Churai Watanatada; to study pesticide residue analysis at Louisiana State University, Baton Rouge; \$3,375;

SAMARN PANICHAPONG, Ministry of National Development, Bangkok: to attend the International Training Centre for Post-Graduate Soil Scientists, Ghent, Belgium, \$1,100;

ROCKEFELLER FOUNDATION International Cooperative Program in Agricultural Sciences: Thai program; *see International, above*;

## TRINIDAD

THOMAS HORATIO HENDERSON, University of the West Indies, St. Augustine: to observe agricultural extension services in the northern Caribbean; \$1,525;

## UNITED KINGDOM

COMMONWEALTH AGRICULTURAL BUREAUX, Farnham Royal: to develop mechanized information storage methods; \$15,000 for a two-year period;

## UNITED STATES

AMERICAN SOCIETY OF AGRONOMY, Madison, Wisconsin: publication in Spanish of the bulletin *Agronomy in the Americas*; \$1,500;

AMERICAN VETERINARY MEDICAL ASSOCIATION RESEARCH FUND, Chicago, Illinois: symposium on veterinary education; \$9,000;

DR. CLYDE M. CHRISTENSEN, Department of Plant Pathology, University of Minnesota, St. Paul: to review grain storage problems in Mexico; \$1,050;

**COLUMBIA UNIVERSITY, New York:**

Equipment for the Institute of Nutrition Sciences; \$8,000;

Ecological research in Brazil by Dr. Hilgard O'Reilly Sternberg; \$7,000;

**CORNELL UNIVERSITY, Ithaca, New York:**

Dr. Malden C. Nesheim, New York State College of Agriculture; to study in Europe the protein quality of leguminous plants; \$5,200;

Dr. Douglas E. Hogue, New York State College of Agriculture; to visit the Ian Clunies Ross Animal Research Laboratory, Prospect, Australia; \$2,500;

Dr. Loy V. Crowder, New York State College of Agriculture; to attend the Ninth International Grasslands Congress in São Paulo, Brazil, and visit forage research centers in Latin America; \$2,210;

Dr. Robert Bradfield, Graduate School of Nutrition; to visit research centers in the United Kingdom; \$2,050;

Dr. Robert L. Plaisted, New York State College of Agriculture; to visit the Foundation's inter-American potato improvement project in Mexico; \$655;

**DR. DONOVAN S. CORRELL**, Texas Research Foundation, Renner: to review potato improvement in Mexico; \$295;

**DUKE UNIVERSITY**, Durham, North Carolina: international conference at the School of Forestry; \$15,000 for a two-year period;

**DR. TRAVIS R. EVERETT**, United States Department of Agriculture, Baton Rouge, Louisiana: to attend a symposium on the major insect pests of rice at the International Rice Research Institute, Los Baños, Philippines; \$2,040;

**GENETICS SOCIETY OF AMERICA, INC.**, Pasadena, California: to invite Professor Hans Stubbe, director, Institute for Cultivated Plant Research, Gatersleben, East Germany, to the United States; \$2,500;

**GEORGE WASHINGTON UNIVERSITY, Washington, D.C.:**

Preparation of a sorghum and millet research bibliography; \$61,200 for a two-year period;

1962 supplement to the *International Bibliography of Rice Research*; \$894;

**DR. J. WALTER HENDRIX**, Department of Plant Pathology, Washington State University, Pullman: to visit research centers in Europe and to attend the Third European Yellow Rust Conference in Cambridge, England; \$1,575;

**DR. GLENN C. HOLM**, dean, College of Veterinary Medicine, Oklahoma State

University, Stillwater: to confer with officers of the University of San Carlos, Guatemala; \$750;

INSTITUTE OF INTERNATIONAL EDUCATION, New York: agricultural education seminar at Tarrytown, New York; \$15,000;

IOWA STATE UNIVERSITY, Ames:

Dr. Kenneth John Frey, Department of Agronomy; to visit small grains research centers in Ecuador and Colombia; \$1,195;

Symposium on plant breeding; \$1,000 for a two-year period;

DR. OREN L. JUSTICE, president, International Seed Testing Association, Beltsville, Maryland: to participate in a conference on seed testing, at Campinas, Brazil; \$1,100;

LOUISIANA STATE UNIVERSITY, Baton Rouge:

Dr. L. D. Newsom, Entomology Research Department; to attend a symposium on the major insect pests of rice at the International Rice Research Institute, Los Baños, Philippines; \$2,065;

Dr. William H. Patrick, Jr., Department of Agronomy; to undertake postdoctoral studies in agronomy at Rothamsted Experimental Station, Harpenden, England; \$1,600;

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge: to appoint Jaroslav Hospodka, Czechoslovak Academy of Sciences, Prague, as visiting investigator in the Department of Nutrition and Food Science; \$4,900;

MICHIGAN STATE UNIVERSITY, East Lansing:

To enable Dr. Georg Borgstrom, Department of Food Science, to complete treatises on the international utilization of protein; \$8,000;

Agricultural Experiment Station; publication of a review of the leafhopper genus *Cicadulina*, prepared by Dr. Robert F. Ruppel; \$500;

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL, Washington, D.C.: to prepare publications on methods of pest control; \$15,000 for a three-year period;

NEW YORK ZOOLOGICAL SOCIETY, New York: research in the Laboratories of Marine Sciences; \$150,000 for a three-year period, on a part-matching basis;

OCEANIC FOUNDATION, Oahu, Hawaii: establishment and operation of a Brackish-Water Fish Culture Laboratory; \$360,000 for a three-year period, on a part-matching basis;



**OREGON STATE UNIVERSITY, Corvallis:**

Research on methods of eliminating infection in seeds; \$8,000 for a two-year period;

Dr. J. Ritchie Cowan, Department of Agronomy; travel in Latin America and attendance at the Ninth International Grasslands Congress in São Paulo, Brazil; \$3,825;

Dr. C. M. Gilmour; to visit agricultural microbiology centers in Europe and the Far East, and to attend the Tenth International Botanical Congress, Edinburgh, Scotland; \$3,800;

John C. Radcliffe, Department of Farm Crops; to visit forage research centers in the United States and Canada; \$1,000;

**DR. REGINALD H. PAINTER, Department of Entomology, Kansas State University, Manhattan:** to attend a symposium on the major insect pests of rice at the International Rice Research Institute, Los Baños, Philippines; \$2,040;

**PURDUE UNIVERSITY, Lafayette, Indiana:**

Dr. Ralph L. Davis and Dr. Fred LaVern Patterson, Department of Agronomy; to visit agricultural centers in Latin America; \$2,600;

Raleigh H. Fosbrink, Faculty of Agriculture; to visit agricultural institutions in Brazil and attend the Conference of the Association of Brazilian Schools of Agronomy and Veterinary Medicine, Belém; \$1,600;

Dr. A. S. Carter, Department of Biochemistry; to participate in a conference on seed improvement, at Campinas, Brazil; \$1,200;

**DR. L. H. ROLSTON, College of Agriculture and Home Economics, University of Arkansas, Fayetteville:** to attend a symposium on the major insect pests of rice at the International Rice Research Institute, Los Baños, Philippines; \$2,065;

**RURAL SOCIOLOGICAL SOCIETY (U.S.A.):** participation in the First World Congress of Rural Sociology, Dijon, France; \$3,000;

**STANFORD UNIVERSITY, California:** investigations of the agricultural economy of Colombia, by Dr. Jacques Dumont; \$11,718;

**E. W. SUNDERMEYER, United States Department of Agriculture, Kansas City, Missouri:** to participate in a conference on seed improvement, at Campinas, Brazil; \$1,200;

**TEXAS A & M UNIVERSITY, Beaumont:**

C. C. Bowling, Texas Agricultural Experiment Station; to attend a symposium

on the major insect pests of rice, at the International Rice Research Institute, Los Baños, Philippines; \$2,040;

Nathan S. Evatt, Rice-Pasture Experiment Station; to attend a symposium on the major insect pests of rice, at the International Rice Research Institute, Los Baños, Philippines; \$1,875;

UNIVERSITY OF ALASKA, College: studies of grasses and legume species; \$28,000 for a two-year period;

UNIVERSITY OF ARIZONA, Tucson: research on water resources; \$32,700 through September, 1966;

UNIVERSITY OF CALIFORNIA:

*Berkeley*

Establishment of a Dry Lands Research Institute on the Riverside campus; \$265,900;

*Davis*

Dr. Horton M. Laude, Department of Agronomy; to assist in plant physiology programs at Mexican agricultural institutions; \$7,520;

Dr. Charles Rick, Department of Vegetable Crops; to assist the program of the Luiz de Queiroz School of Agriculture, Piracicaba, Brazil; \$3,910;

Dr. Duane Sorenn Mikkelsen, Department of Agronomy; to attend an international mineral nutrition symposium at the International Rice Research Institute, Los Baños, the Philippines; \$1,980;

*Riverside*

Dr. George A. Zentmyer, Department of Plant Pathology; to visit research centers in the Far East and South Asia; \$530;

UNIVERSITY OF CHICAGO, Illinois: study of agricultural research in the economy of a developing country; \$7,000;

UNIVERSITY OF NEBRASKA, Lincoln: toward publication costs of *Wheat Abstracts*; \$8,000;

UNIVERSITY OF WISCONSIN, Madison:

Research in the breeding, genetics, and pathology of the potato; \$78,000 for a five-year period;

For use by the Department of Plant Pathology for an international conference on pathogenesis and metabolism in plants; \$12,750;

Dr. Albert Joyce Riker, Department of Plant Pathology; to attend the Tenth International Botanical Congress in Edinburgh, Scotland; \$1,000;

Professor A. C. Todd, Department of Veterinary Science; to visit research centers in Colombia; \$985;

Dr. Henry M. Darling, Department of Plant Pathology; to visit the Foundation's inter-American potato improvement project in Mexico; \$717;

WEST VIRGINIA UNIVERSITY, Morgantown: for use by the University Foundation for a library research collection on East Africa; \$5,000 for a two-year period;

DR. BRUCE ZOBEL, School of Forestry, University of North Carolina at Raleigh: to attend a symposium in São Paulo, Brazil, and to confer with officials of the University of São Paulo; \$1,400.

# PROBLEMS OF POPULATION

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## INTERNATIONAL

UNITED NATIONS, New York: expanded demographic program of the Economic Commission for Asia and the Far East; \$100,000 for a two-year period;

## AUSTRALIA

DR. P. A. PARSONS, Department of Zoology, University of Melbourne: to visit centers of human genetics research in Europe, the Middle East, and North and South America; \$4,000;

## DENMARK

PROFESSOR JAN MOHR, director, Institute of Medical Genetics, University of Copenhagen: to study recent advances in human genetics in Europe and North America; \$2,900;

## UNITED KINGDOM

MRS. CHRISTA RENATE BARBER, Department of Social Medicine, University of Oxford: demographic studies at the University of Ibadan, Nigeria; \$3,075;

## UNITED STATES

CONSERVATION FOUNDATION, New York: studies of population, environment, and utilization of natural resources; \$15,000;

HARVARD UNIVERSITY, Cambridge, Massachusetts: for use by the School of Public Health for a study of family planning in Santiago, Chile, in cooperation with the Department of Preventive Medicine of the University of Chile; \$42,000 for a three-year period;

POPULATION ASSOCIATION OF AMERICA, Washington, D.C.: attendance of invited delegates at the World Population Conference, Belgrade, Yugoslavia; \$15,000;

**POPULATION COUNCIL, New York:**

General support of the Technical Assistance Division; \$2,000,000 for a four-year period;

Toward an international conference on family planning at Belgrade, Yugoslavia; \$15,000;

**POPULATION REFERENCE BUREAU, INC., Washington, D.C.:** toward its Latin American educational program; \$100,000 for a five-year period;

**PRINCETON UNIVERSITY, New Jersey:**

Support of the Office of Population Research; \$500,000;

Investigation of the relationships between economic development and birth rates by the Office of Population Research; \$31,500;

**URUGUAY**

**UNIVERSITY OF THE REPUBLIC, Montevideo:** equipment for the Service of Obstetrical Physiology; \$6,000.

# UNIVERSITY DEVELOPMENT

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## INTERNATIONAL

### ROCKEFELLER FOUNDATION Cooperative Program in University Development:

Salaries, travel, and other expenses of Foundation field staff \$ 821,800

#### Program centers

Colombia	\$102,690	
East Africa (Kenya, Tanzania, Uganda)	29,250	
Nigeria	35,500	
Philippines	25,500	
Thailand	39,700	232,640
Development and other expenses		135,000
<b>TOTAL—Appropriations for 1965</b>		<b>\$1,189,440</b>

## CHILE

CATHOLIC UNIVERSITY OF CHILE, Santiago: research in the Center of Economic Studies; \$14,500;

MISS MARIELA MORALES, Institute of Economic Research, University of Chile, Santiago: to observe library practice in Mexico and the United States; \$2,800;

## COLOMBIA

### COLOMBIAN ASSOCIATION OF FACULTIES OF MEDICINE, Bogotá:

Toward its general program; \$10,000;

Seminar on medical pedagogy; \$4,500;

ROCKEFELLER FOUNDATION International Cooperative Program in University Development: Colombian program; *see International, above*;

### UNIVERSITY OF VALLE, Cali:

Salaries of professional and technical personnel of the university and the hospital; 109,400 Colombian pesos and \$201,538 (about \$213,572);

University of Tennessee, Nashville; exchange program between the College of Medicine, Memphis, and the University of Valle; \$105,000 through December, 1967;

University of Texas, Austin; participation in the English language teaching program of the University of Valle; \$45,000;

Toward the costs of visiting appointments; \$43,100; for the following persons:

Harry M. Boon, Jr.; professor of economics;

Luis Arturo Fuenzalida, Catholic University of Chile, Santiago; professor of economics;

Dr. Timothy Loeb; assistant professor of biology;

Franklin E. Maignashca, Food Research Institute, Stanford University, California; visiting professor;

Administrative services and equipment; 145,490 Colombian pesos and \$20,000 (about \$35,470);

Strengthening of the School of Medicine; \$15,000;

Development of a research program in chemistry; \$13,500;

Development of a program in reproductive physiology; \$12,000;

Equipment for the Faculty of Medicine; \$10,000;

Preparation in Europe of course materials, by Professor Antonio Antelo, Institute of Humanities and Education; \$7,500;

Materials for the basic college program library; \$5,000;

To enable Miss Graciela Palacios to observe administrative practices at the University of London, England; \$3,000;

Burnham Kelly, dean, and A. Henry Detweiler, associate dean, College of Architecture, Cornell University, Ithaca, New York; to confer with officers of the University of Valle; \$2,440;

Dr. Eliseo Cuadrado, Faculty of Medicine; to visit medical centers in the United States; \$2,350;

Dr. Heinz Wahner, Faculty of Medicine; to study radioisotope techniques in the United States; \$2,300;

Jon. Tanaka F, Linguistic Center; to study at Indiana University, Bloomington; \$2,157;

Mrs. Renée E. Woodhouse, Linguistic Center; to study at the Goethe Institute, Munich, Germany; \$1,850;

Dr. Alfonso Ocampo Londoño, dean of studies; to observe academic organization in Europe; \$1,650;

Miss Ines Durana, School of Nursing; to visit the University of Florida School of Nursing, Gainesville; \$1,650;

Miss Grace Elizabeth Morgan, School of Nursing; to visit the University of Florida School of Nursing, Gainesville; \$1,650;

Miss Beatriz Rueda, Faculty of Medicine; to visit the University of Florida School of Nursing, Gainesville; \$1,650;

Dr. Philip B. Taylor, Jr., Johns Hopkins University, Washington, D.C.; to confer with officers of the University of Valle and the University of the Andes, Bogotá; \$1,025;

Dr. Alfonso Matallana, Faculty of Medicine; to visit departments of pharmacology in the United States; \$985;

Reinaldo Scarpetta, dean, Faculty of Economics; to confer with officers of the Foundation in New York; \$850;

Dr. Ernesto Zambrano, Faculty of Medicine; to attend a seminar on human relations and medical teaching, in Santiago, Chile; \$710;

## CONGO

LOVANUM UNIVERSITY, Leopoldville: political science program in the Institute of Economic and Social Research; \$12,500;

## INDIA

UNIVERSITY OF MADRAS: equipment for the University Botany Laboratory; \$1,500;

## INDONESIA

GADJAH MADA UNIVERSITY, Jogjakarta: texts and equipment for the Faculty of Agriculture; \$15,000;

## ITALY

CONFERENCE on economic research in Africa, at the Villa Serbelloni, Bellagio; \$9,750;

## KENYA

EGERTON COLLEGE, Njoro: scholarship program for East African students; \$15,000;

UNIVERSITY COLLEGE NAIROBI: *see* University of East Africa, Uganda;



## LIBERIA

Dr. P. C. MA, dean, College of Agriculture, University of Liberia, Monrovia: to visit agricultural and educational centers in Latin America; \$2,350;

## NIGERIA

ROCKEFELLER FOUNDATION International Cooperative Program in University Development: Nigerian program; see *International, above*;

### UNIVERSITY OF IBADAN:

To establish a Department of Nursing; \$200,000;

Laboratories and equipment for a nutrition center; \$118,000;

Teaching and research in the Faculty of Agriculture; \$84,000;

Toward the costs of visiting appointments; \$74,835; for the following persons:

Dr. G. Diran Bodenorn, Ohio State University, Columbus; chairman, Department of Economics;

Dr. Ralph C. Richards, University of Utah, Salt Lake City; head, Department of Surgery;

Support of the rural health center, Igbo-Ora; £21,495 (about \$60,616);

Equipment for the Department of Chemical Pathology; \$37,400;

Support of medical trainees; \$26,508;

Construction of faculty housing; £8,600 (about \$24,510);

Support of the Department of Psychiatry, Neurology, and Neurosurgery; \$12,460;

Study of the accounting and administrative procedures of the university; £4,000 (about \$11,280);

To appoint an environmental engineer in the Department of Preventive and Social Medicine; £3,500 (about \$9,870);

Population research in the Faculty of Economics and Social Studies; \$9,300;

To appoint a medical librarian; £3,004 (about \$8,472);

Support of the Department of Arabic and Islamic Studies; £3,000 (about \$8,460);

University of Wisconsin, Madison; study of hemoglobin genetics, by Robert Coifman; \$7,400;

Demas Nwoko, School of Drama; to visit drama centers in Asia and North America; \$6,900;

To invite Samuel Bowles, Department of Economics, Harvard University, Cambridge, Massachusetts, to undertake research in Nigeria; \$6,500;

To train Victor Oluwo at the Data Processing Centre; \$5,600;

Professor A. N. A. Modebe, Department of Agriculture; travel in Europe and North and South America; \$5,200;

Harvard University, Cambridge, Massachusetts; exchange of hospital residents; \$3,650;

Dr. John P. de Villiers Hendrickse, Faculty of Medicine; to visit chemotherapy centers in the United States and Jamaica; \$3,560;

Purchase of texts in economics, social sciences, and history; \$2,750;

Research by social scientists at the Data Processing Centre; \$2,750;

Research, and travel in the United States and Europe, by Dr. Ojetunji Aboyade, Department of Economics; \$2,600;

Dr. Samuel Ejiofo Mbanefo, Faculty of Medicine; to visit community health and psychiatric centers in North America and the United Kingdom; \$2,525;

Research in the Department of Sociology; \$2,500;

Dr. Jacob E. Bearman, School of Public Health, University of Minnesota, Minneapolis; to confer on the demographic studies program; \$2,460;

Stanford University, California; to invite Albert V. E. Imohiosen to undertake research in sociology; \$1,945;

Travel and research by Dr. Janusz G. Zielinski, Department of Economics; \$1,680;

Dr. William Peter Cockshott, Department of Radiology; to visit research centers in the United States; \$1,600;

Dr. Theophilus Oladipo Ogunlesi, Faculty of Medicine; to visit medical centers in the United Kingdom and Gambia; \$1,350;

Dr. Richard Warren, Harvard Medical School, Boston, Massachusetts; to confer with officers of the University of Ibadan; \$1,280;

Research on the role of the higher public service in Nigeria, by Richard L. Harris, Department of Political Science; \$800;

## PHILIPPINES

ROCKEFELLER FOUNDATION International Cooperative Program in University Development: Philippine program; *see International, above*;

**UNIVERSITY OF THE PHILIPPINES:**

*Los Baños*

Equipment for the College of Agriculture; \$30,500;

Dr. Faustino T. Orillo, Department of Plant Pathology; to visit agricultural institutions in Europe and the Far East; \$3,587;

*Quezon City*

Construction of an International Center; \$153,500;

Toward the costs of visiting appointments; \$71,580; for the following persons:

Dr. K. William Kapp, Brooklyn College, New York; professor of economics;

Dr. William H. K. Narum, St. Olaf College, Northfield, Minnesota; professor of philosophy;

Dr. Gerald Sirkin, City College, New York; professor of economics;

Construction of faculty housing; \$36,500;

Equipment for the College of Medicine; \$39,000;

Advanced study program for the Division of Natural Sciences faculty; \$25,000;

Equipment for the Institute of Hygiene; \$15,000;

Yale University, New Haven, Connecticut; graduate studies by Professor José C. Campos, College of Law; \$9,470;

Strengthening the library of the Department of English and Comparative Literature; \$5,000;

**SUDAN**

**UNIVERSITY OF KHARTOUM:**

Toward the program of the Sudan Unit; £3,000 (about \$8,700);

Professor Robert W. Hodgson, dean, College of Agriculture, University of California, Los Angeles; to confer with officers of the University of Khartoum; \$4,600;

Ahmed el Sayed Osman, administrative secretary; to visit universities in Africa, England, and the United States; \$4,430;

Dr. Omar Mohamed Osman, dean, Faculty of Economic and Social Studies; to visit educational institutions in Europe and the United States; \$4,320;

Equipment for the central library; £1,300 (about \$3,770);

Institute of Public Administration; program of in-service training; £1,200 (about \$3,480);

Training in France of students from the Department of European Languages; £1,124 (about \$3,260);

Professor Hakan E. C. Törnebohm, Department of Philosophy, University of Gothenburg, Sweden; to deliver a lecture series on scientific method; \$2,900;

Dr. George W. Shepherd, Jr., Social Science Foundation, University of Denver, Colorado; to confer with officers of the University of Khartoum; \$2,305;

Purchase of books for the Department of Geography library; \$2,100;

Research in India and Pakistan on irrigation development economics, by Dr. Douglas S. Thornton, head, Department of Rural Economy; \$2,100;

Muddathir Abdel-Rahim, Department of Political Science, Victoria University of Manchester, England; to confer with officers of the University of Khartoum; \$1,120;

## TANZANIA

UNIVERSITY COLLEGE, Dar es Salaam: *see* University of East Africa, Uganda;

## THAILAND

### INSTITUTIONS IN BANGKOK:

#### *Chulalongkorn University*

Equipment for the Faculty of Science; \$20,000;

Central Florida Junior College, Ocala; to enable Mrs. Frances Lander Spain to serve as library consultant at Chulalongkorn University; \$16,500;

#### *Kasetsart University*

Scientific equipment and materials; \$77,000;

Equipment for the cooperative corn improvement project; \$16,900;

#### *University of Medical Sciences*

Research and training in organic chemistry and biochemistry; \$15,000;

Construction of animal quarters; \$10,000;

Dr. Sanong Unakul, Department of Physiology; to observe developments in biochemistry in the United States; \$4,200;

DR. BUNCHANA ATTHAKOR, deputy minister, Ministry of National Development: travel in Japan, Europe, and North America; \$6,100;

DR. JOHN H. BADGLEY, Department of Government, Miami University, Oxford, Ohio: research in Thailand on Southeast Asian politics; \$1,430;

CORNELL UNIVERSITY, Ithaca, New York: study of the development of the social sciences in Thailand, by Professor Lauriston Sharp, Department of Anthropology; \$7,500;

NUFFIELD COLLEGE, Oxford, England: research in Thailand on price statistics, by Dr. Dan Usher, research fellow; \$4,700;

RATANA OONYAWONGSE, Ministry of Agriculture, Bangkok: to visit animal research centers in the Far East, India, and North and South America; \$4,150;

ROCKEFELLER FOUNDATION International Cooperative Program in University Development: Thai program; *see International, above*;

## UGANDA

ROCKEFELLER FOUNDATION International Cooperative Program in University Development: East African program; *see International, above*;

UGANDA NATIONAL CULTURAL CENTRE TRUST, Kampala: training program at the National Theatre of Uganda; £5,000 (about \$15,000);

UNIVERSITY OF EAST AFRICA, Entebbe:

Program of Africanization of the academic staff of the constituent colleges; \$89,412;

Professor Bryant E. Kearn, associate dean, Graduate School, University of Wisconsin, Madison; to serve as planning officer to the University of East Africa; \$23,985;

Training of library book binders from the constituent colleges; \$18,700;

Study of the administrative procedures of the university; £3,600 (about \$10,260);

Toward costs of the Committee on Special Lectureships; \$10,000;

Professor James R. Donoghue, Institute of Governmental Affairs, University of Wisconsin, Madison; to confer in Europe and Africa on the development of the University of East Africa; \$2,150;

### *University College Nairobi, Kenya*

Comparative study of veterinary institutions in developing countries, by Dr. John B. Polding, dean, Faculty of Veterinary Science; \$15,000;

S. W. Karanja, registrar-designate; to observe university administration in Africa, the United Kingdom, and the United States; \$6,300;

Dr. Peter Charles Nderito, assistant dean, Faculty of Veterinary Science: travel in Europe and the United States; \$4,335;

Neville V. E. Denny, Department of English; to survey, in Africa and Europe, developments in African writing; \$3,800;

*University College, Dar es Salaam, Tanzania*

Toward the costs of appointments; \$33,190; to the following posts:

Law cataloguer;

Documentary photographer/teacher;

Assistant librarian;

Cataloguer/library assistant;

Temporary lecturer in African literature;

Purchase of bindery equipment; \$14,000;

Purchase of photographic equipment; \$8,750;

To introduce new accounting and control procedures; £2,200 (about \$6,200);

*Makerere University College, Kampala, Uganda*

Support of the Faculty of Agriculture; £33,311 (about \$95,300);

For a Master of Arts program in African Studies; £18,600 (about \$53,218);

Construction of faculty housing; £15,000 (about \$42,918);

Development of the Kasangati medical center; \$30,000;

To appoint a tutor in library training; \$14,400;

Research on bilharziasis, in the Department of Pathology; \$11,500;

Dr. Noel Q. King, Department of Religious Studies; travel in Africa, Europe, and North America; \$4,970;

Supporting services for the East African School of Librarianship; \$3,600;

Dr. George A. Hay, Department of Economics, Reed College, Portland, Oregon; to confer with officers of Makerere University College; \$2,800;

Dr. A. Paul Hare, Haverford College, Pennsylvania; to serve as visiting lecturer in sociology; \$2,700;

Dr. H. Fletcher Lunn, senior lecturer in surgery; to participate in the Medical Teacher Training Program at the University of Illinois, Chicago; \$2,300;

For use by the East African Institute of Social Research; £727 (about \$2,180);

Bindery and photographic equipment for the library; \$1,360;

## UNITED STATES

CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK: research on planning in India, by Dr. Gerald Sirkin, Department of Economics; \$3,800;

FRANKLIN BOOK PROGRAMS, INC., New York: feasibility study of the production of printed library catalogue cards in Spanish-speaking America; \$10,000;

DR. THOMAS H. HAMILTON, president, University of Hawaii, Honolulu: to visit educational institutions in Asia; \$2,500;

DAVID H. JOHNS, University of Chicago, Illinois: research in Uganda and Tanzania on East African federation; \$1,000;

PROFESSOR ROY C. MACRIDIS, chairman, Department of Political Science, State University of New York at Buffalo: to confer with officers of universities in Latin America and Africa; \$2,900;

DR. LINCOLN R. PAGE, United States Geological Survey, Boston, Massachusetts: travel in the United Kingdom and Africa; \$3,625;

DR. HUSTON SMITH, Department of Philosophy, Massachusetts Institute of Technology, Cambridge: travel in Southeast Asia; \$1,525;

TOOLS FOR FREEDOM FOUNDATION, New York: equipment distribution program in Colombia; \$15,000;

UNIVERSITY OF DENVER, Colorado: for use by the Department of International Relations in assigning social science scholars to universities abroad; \$49,300 for a four-year period;

UNIVERSITY OF MINNESOTA, St. Paul: to enable Dr. C. M. Stowe, head, Department of Veterinary Physiology and Pharmacology, to accept a visiting appointment at the National University of Colombia, Bogotá; \$15,000;

UNIVERSITY OF NOTRE DAME, Indiana: to initiate a Latin American research program in the social sciences and humanities; \$210,000 for a four-year period;

UNIVERSITY OF TEXAS, Austin: establishment of a nonprofit inter-American scholarly book center in Mexico City, Mexico; \$100,000 for a four-year period;

WEST VIRGINIA UNIVERSITY, Morgantown: recruitment of senior agricultural sciences professors for service in East African institutions; \$115,000 for a five-year period.

# EQUAL OPPORTUNITY

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## UNITED STATES

**ANTIOCH COLLEGE**, Yellow Springs, Ohio: discovery and support of talented minority group students; \$300,000 for an eight-year period;

**ATLANTA UNIVERSITY**, Georgia: strengthening the School of Library Service; \$275,000 for a four-year period;

**BROOKLYN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK**: development of a college talent search project; \$145,000 through August, 1966;

**CARLETON COLLEGE**, Northfield, Minnesota: discovery and support of talented minority group students; \$275,000 for a seven-year period;

**CONNECTICUT COLLEGE**, New London: summer school program for talented disadvantaged high school students; \$150,000 for a five-year period;

**DILLARD UNIVERSITY**, New Orleans, Louisiana: support of its prefreshman program; \$15,000 for a 15-month period;

**DAVID C. DRISKELL**, Department of Art, Howard University, Washington, D.C.: to visit art centers in Europe; \$2,000;

**EDUCATIONAL SERVICES INCORPORATED**, Watertown, Massachusetts: summer institutes in mathematics and biology for teachers from Negro colleges, at the University of Wisconsin, Madison, and the University of North Carolina, Greensboro, respectively; \$150,000;

**GRINNELL COLLEGE**, Iowa: discovery and support of talented minority group students; \$275,000 for a seven-year period;

**HOTCHKISS SCHOOL**, Lakeville, Connecticut: summer school program for talented disadvantaged high school students; \$165,000 through December, 1967;

**MOREHOUSE COLLEGE**, Atlanta, Georgia: intensive study programs for talented high school students, in cooperation with Spelman College, Atlanta; \$225,000 for a four-year period;

**MOUNT HOLYOKE COLLEGE**, South Hadley, Massachusetts: summer school program for talented disadvantaged high school students; \$150,000 for a five-year period;



**NATIONAL URBAN LEAGUE, INC., New York: leadership development program; \$450,000 for a three-year period;**

**OBERLIN COLLEGE, Ohio: discovery and support of talented minority group students; \$275,000 for a seven-year period;**

**OCCIDENTAL COLLEGE, Los Angeles, California: discovery and support of talented minority group students; \$275,000 for a seven-year period;**

**REED COLLEGE, Portland, Oregon: discovery and support of talented minority group students; \$275,000 for a seven-year period;**

**SWARTHMORE COLLEGE, Pennsylvania: discovery and support of talented minority group students; \$275,000 for a seven-year period;**

**WAYNE STATE UNIVERSITY, Detroit, Michigan: cooperative program by the College of Nursing with schools in Louisiana and Alabama; \$8,500.**

# AIDING OUR CULTURAL DEVELOPMENT

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## UNITED STATES

ACTORS STUDIO, INC., New York: experimental work in the Playwrights Unit, and instruction in playwriting, acting, and directing; \$35,000 through June, 1966;

AMERICAN SYMPHONY ORCHESTRA, New York: preparation for performance of Charles Ives' Fourth Symphony; \$7,200;

AMERICAN SYMPHONY ORCHESTRA LEAGUE, INC., Charleston, West Virginia: workshops for conductors; \$15,000;

BOSTON SYMPHONY ORCHESTRA, Massachusetts: to enable John Huggler to be composer in residence; \$13,000;

KENNETH BROWN, New York: to devote full time to writing; \$5,600;

COLBY COLLEGE, Waterville, Maine: Summer School of Music for string players; \$15,000 for a three-year period;

COLUMBIA UNIVERSITY, New York:

Creative work in music composition, by Professor Douglas S. Moore; \$5,000;

To enable Mario Davidovsky to devote full time to electronic music composition; \$6,000;

DALLAS SYMPHONY ORCHESTRA, Texas: première performances of symphonic works by American composers; \$20,000;

DRAMA, INCORPORATED, Milwaukee, Wisconsin: to appoint visiting directors and fellowship students at the Milwaukee Repertory Theater; \$12,320;

JULLIARD SCHOOL OF MUSIC, New York: development of the projected American Opera Center for Advanced Training; \$35,000 through August, 1967, and \$300,000 on a matching basis;

MINNESOTA THEATRE COMPANY FOUNDATION, Minneapolis: instruction in speech and stage movement; \$15,000;

NEW YORK UNIVERSITY, New York: to enable Faubion Bowers, Division of General Education, to complete a biography of Alexander Scriabin; \$1,500;

PITTSBURGH PLAYHOUSE SCHOOL OF THE THEATER, Pennsylvania: support of the Vanguard Classroom Project; \$13,500;

PRINCETON UNIVERSITY, New Jersey: computer research in the Department of Music; \$15,000;

RUTGERS, THE STATE UNIVERSITY, New Brunswick, New Jersey: to enable Miss Susan Sontag, writer in residence, to devote full time to writing; \$8,500;

SEATTLE REPERTORY THEATRE, Washington: development of the acting and directing style of its resident company; \$21,600;

STANFORD UNIVERSITY, California: establishment of a professional theatre company and of a program in theatre leading to the M.F.A. degree; \$300,000 through August, 1968;

THEATRE INCORPORATED, New York: training program for members of the Association of Producing Artists, Inc., New York; \$4,250;

TULANE UNIVERSITY OF LOUISIANA, New Orleans:

Circulation development of the *Tulane Drama Review*, in cooperation with the American National Theater and Academy, New York; \$10,020 for an 18-month period;

To enable the New Orleans Philharmonic Symphony Orchestra to give première performances of symphonic works by American composers; \$16,000;

UNIVERSITY OF BUFFALO FOUNDATION, INC., New York:

For use by the State University of New York at Buffalo in establishing a center for music performance and creativity; \$200,000 on a part-matching basis, for a 27-month period;

To enable the Buffalo Philharmonic Orchestra Society, Inc., to give première performances of symphonic works by American composers; \$17,000;

UNIVERSITY OF CHICAGO, Illinois:

Program to foster the composition and performance of contemporary music; \$250,000 on a part-matching basis, through June, 1967;

To enable the Chicago Symphony Orchestra to give première performances of symphonic works by American composers; \$15,000;

Participation in a cultural assessment study by the Mayor's Committee for Economic and Cultural Development of Chicago; \$15,000;

UNIVERSITY OF CINCINNATI, Ohio: to enable the Cincinnati Symphony Orchestra

to give première performances of symphonic works by American composers; \$18,000;

**UNIVERSITY OF MASSACHUSETTS, Amherst:** to enable Dr. John S. Harris to undertake research in the United Kingdom on government support of the arts; \$8,000;

**UNIVERSITY OF MINNESOTA, Minneapolis:** planning of a program in professional theatre training; \$30,000;

**UNIVERSITY OF UTAH, Salt Lake City:**

Program in modern dance; \$15,000;

To enable the Utah Symphony Orchestra to give première performances of symphonic works by American composers; \$8,000;

**UNIVERSITY OF WASHINGTON, Seattle:**

Performance training program in the School of Music; \$15,000 for a two-year period;

To enable the Seattle Symphony Orchestra to give première performances of symphonic works by American composers; \$15,000;

**UNIVERSITY OF WISCONSIN, Madison:** to enable a consultant in theatre arts to visit the University of Helsinki, Finland; \$1,000;

**VASSAR COLLEGE, Poughkeepsie, New York:** to appoint two assistants in the Department of Drama; \$4,000;

**WALKER ART CENTER, Minneapolis, Minnesota:** program in the performing arts; \$15,000 through September, 1966;

**WASHINGTON UNIVERSITY, St. Louis, Missouri:** to enable the St. Louis Symphony Orchestra to give première performances of symphonic works by American composers; \$15,000;

**YALE UNIVERSITY, New Haven, Connecticut:** to enable Ralph Ellison to devote full time to writing; \$14,000.

# ALLIED INTERESTS

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*MNS: Medical and Natural Sciences; AS: Agricultural Sciences;  
HSS: Humanities and Social Sciences; IP: Inter-Program*

## INTERNATIONAL

### ROCKEFELLER FOUNDATION Cooperative Program in Virus Research:

Salaries, travel, and other expenses of Foundation field staff	\$ 550,200	
Virus laboratories		
Brazil	\$ 45,500	
Colombia	34,860	
India	72,240	
Nigeria	3,000	
United States	312,500	468,100
TOTAL--Appropriations for 1965		<u>\$1,018,300 (MNS)</u>

### ROCKEFELLER FOUNDATION Cooperative Program in Medical Sciences:

Salaries, travel, and other expenses of Foundation field staff and other program costs	\$ 676,150	
Field offices		
India		145,150
TOTAL--Appropriations for 1965		<u>\$ 821,300 (MNS)</u>

UNITED NATIONS, New York: acquisition of a building for the proposed training and research institute; \$450,000; (HSS)

## ARGENTINA

### UNIVERSITY OF BUENOS AIRES:

Equipment for the Faculties of Medical Sciences, Pharmacy and Chemistry, and Exact and Natural Sciences; \$79,000 for a three-year period; (MNS)

For use by the Faculty of Architecture and Urbanism to enable Professors Jorge O. Gazaneo and Mabel M. Gazaneo to study in the United States; \$9,500; (HSS)

**UNIVERSITY OF CUYO, Mendoza:**

Support of the Faculty of Medical Sciences; \$100,000; (MNS)

Dr. Mario H. Burgos, Faculty of Medical Sciences; to observe cell biology research in Europe and the United States; \$1,500; (MNS)

**A U S T R A L I A**

**AUSTRALIAN NATIONAL UNIVERSITY, Canberra:** research in New Guinea on arthropod-borne viruses; \$15,000 for a two-year period; (MNS)

**QUEENSLAND INSTITUTE OF MEDICAL RESEARCH, Brisbane:** establishment of a field station for research on arthropod-borne viruses; \$15,000; (MNS)

**B R A Z I L**

**MISSSES AMELIA HOMOBONO PAES DE ANDRADE AND AMAZONIA TODA, Belém Virus Laboratory:** to visit the Trinidad Regional Virus Laboratory, Port-of-Spain; \$900; (MNS)

**DR. METRY BACILA, Institute of Biochemistry, University of Paraná, Curitiba:** to visit laboratories in the United States; \$2,800; (MNS)

**FOR PROJECTS IN GENETICS** research and training at Brazilian institutions:

*University of São Paulo*

Support of the Laboratory of Medical Genetics, Faculty of Medicine; Cr. 2,720,000 and \$1,500 (about \$4,764); (MNS)

Travel in Europe by Professor Crodowaldo Pavan, Department of General Biology, and purchase of a photomicroscope; \$2,800; (MNS)

To enable Dr. Walter S. Plaut, Department of Zoology, University of Wisconsin, Madison, to visit the Department of General Biology; \$800; (MNS)

*University of Bahia, Salvador;* support of the Laboratory of Human Genetics, Faculty of Medicine; \$4,500; (MNS)

*Faculty of Medical and Biological Sciences of Botucatu, State of São Paulo;* support of the Medical Genetics Research Center; Cr. 60,000 and \$3,750 (about \$3,822); (MNS)

*University of Rio Grande do Sul, Pôrto Alegre;* support of the Laboratory of Animal Genetics, Institute of Natural Sciences; \$3,268; (MNS)

*University of Paraná, Curitiba*

Study of variables in human inheritance by the Laboratory of Human Genetics; Cr. 3,000,000 (about \$2,250) through March, 1966; (MNS)

Field operating expenses of the Laboratory of Human Genetics; \$1,390; (MNS)

*Brazilian Society of Genetics, São Paulo*; expenses of the 1964 meeting; Cr. 2,000,000 (about \$1,800); (MNS)

ROCKEFELLER FOUNDATION International Cooperative Program in Virus Research: Belém Virus Laboratory; *see International, above*;

SÃO PAULO STATE SECRETARIAT OF AGRICULTURE: toward costs of the Ninth International Grasslands Congress; \$25,000 for a two-year period; (AS)

UNIVERSITY OF BAHIA, Salvador: study of the government of Brazil by Dr. Nelson de Sousa Sampaio, dean, Faculty of Law; \$8,500; (HSS)

UNIVERSITY OF BRAZIL, Rio de Janeiro: research equipment for Dr. Dejano Sobral, Faculty of Medicine; \$7,500; (MNS)

UNIVERSITY OF MINAS GERAIS, Belo Horizonte: development of the Faculty of Medicine; \$138,000; (MNS)

UNIVERSITY OF RIO GRANDE DO SUL, Pôrto Alegre: equipment for the Department of Pathology; \$13,000; (MNS)

CHILE

CATHOLIC UNIVERSITY OF CHILE, Santiago:

Equipment for the Pro Musica Antigua; \$15,000; (HSS)

Transportable tent theatre for the Teatro de Ensayo (Training Theatre); \$15,000; (HSS)

Dr. Oscar San Martín Marín, Faculty of Medicine; to observe neurological research in Europe; \$3,200; (MNS)

UNIVERSITY OF CHILE:

*Santiago*

Equipment for the Faculty of Chemistry and Pharmacy; \$15,000; (MNS)

Dr. Ricardo Cruz-Coke, Faculty of Medicine; to visit human genetics centers in the United States; \$2,850; (MNS)

Dr. Guillermo Contreras, Department of Virology; to visit laboratories in the United States; \$2,325; (MNS)

### *Valparaíso*

Dr. Francisco A. Abarca, Department of Sciences; to undertake research in biochemistry at Tulane University of Louisiana, New Orleans; \$2,500 through March, 1966; (MNS)

## COLOMBIA

ROCKEFELLER FOUNDATION International Cooperative Program in Virus Research: virus studies at the University of Valle, Cali; *see International, above*;

UNIVERSITY OF THE ANDES, Bogotá:

Support of the Department of Biology and the premedical program; \$100,000 through June, 1971; (MNS)

Research in the Center for Studies in Economic Development; 38,000 Colombian pesos (about \$3,990) through September, 1965; (HSS)

DR. ERNESTO O. HOFFMAN, Department of Pathology, University of Valle, Cali: to visit medical centers in North and South America; \$2,015; (MNS)

XAVIER UNIVERSITY, Bogotá: equipment for the Division of Microbiology; \$15,000 through December, 1965; (MNS)

## EL SALVADOR

UNIVERSITY OF EL SALVADOR, San Salvador: equipment for the Department of Microbiology; \$3,000 through December, 1965; (MNS)

## GHANA

UNIVERSITY OF GHANA, Legon, Accra:

Equipment for the Institute of African Studies; £4,826 (about \$13,750); (HSS)

Research in literature and drama by Mrs. Efua T. Sutherland, Institute of African Studies; \$10,000; (HSS)

## GUATEMALA

UNIVERSITY OF SAN CARLOS, Guatemala City: development of the medical library; \$15,000 through October, 1966; (MNS)



## INDIA

INDIAN ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL EDUCATION, Madras: support of its general program; \$10,000 for a 20-month period; (MNS)

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION, New Delhi: to enable Bal Ram Nanda to undertake research in India, the United Kingdom, and the United States on Gopal Krishna Gokhale, Indian statesman; \$10,000 (HSS)

DR. CHARLES KAMALAM JOB, Department of Pathology, Christian Medical College and Hospital, Vellore: to visit research centers in the United States and the United Kingdom; \$3,150; (MNS)

DR. NANDKUMAR HEMRAJ KESWANI, All India Institute of Medical Sciences, New Delhi: to visit medical centers in Europe, North America, and Japan; \$4,900; (MNS)

OSMANIA MEDICAL COLLEGE, Hyderabad: biochemistry equipment for the Institute of Medical Sciences; \$3,500; (MNS)

DR. KAMARAZU NARASIMHA RAO, Additional Director General of Health Services, New Delhi: to visit medical centers in the United Kingdom, the United States, and the Far East; \$4,600; (MNS)

ROCKEFELLER FOUNDATION International Cooperative Program in Virus Research: Virus Research Centre, Poona; *see International, above*;

ROCKEFELLER FOUNDATION International Cooperative Program in Medical Sciences: New Delhi field office and Ballabgarh program; *see International, above*;

SETH GORDHANDAS SUNDERDAS MEDICAL COLLEGE, Bombay: equipment for the Departments of Anatomy, Medicine, Pathology and Bacteriology, Pharmacology, Physiology, and Surgery; \$147,000 for a four-year period; (MNS)

DR. BASHI LAL TANEJA, Indian Council of Medical Research, New Delhi: to visit research centers in Europe, North America, and the Far East; \$4,700; (MNS)

## ITALY

UNIVERSITY OF TURIN: research and training in the Institute of Political Science; \$9,000 through September, 1967; (HSS)

VILLA SERBELLONI, Bellagio: expenses in 1965 of the International Conference and Study Center of The Rockefeller Foundation; \$216,435; (IP)

## JAMAICA

### UNIVERSITY OF THE WEST INDIES, Mona:

Development of an international relations program, by Uwe Kitzinger, fellow, Nuffield College, Oxford, England; \$12,000; (HSS)

To enable Dr. Elisha Tikasingh, Trinidad Regional Virus Laboratory, to study entomology in the United States; \$3,325; (MNS)

## JAPAN

### KYOTO UNIVERSITY:

Library for the Faculty of Medicine; \$15,000; (MNS)

Masataka Kosaka, Faculty of Law; to undertake research in the Far East for a book on China in the modern world; \$1,325; (HSS)

### NATIONAL INSTITUTE OF HEALTH, Tokyo:

Virus research; \$39,700 for a three-year period; (MNS)

Dr. Reisaku Kono, Central Virus Diagnostic Laboratory; to visit laboratories in Europe and the United States; \$1,450; (MNS)

OKAYAMA UNIVERSITY: recording spectrophotometer for the Department of Public Health; \$10,200; (MNS)

## KENYA

DR. NJOROGE MUNGAI, Minister for Health and Housing, Nairobi: to observe medical services and education programs in Colombia and Jamaica; \$2,320; (MNS)

## KOREA

COLLECTION OF BASIC WORKS in international relations for the Ministry of Foreign Affairs; \$14,500; (HSS)

## LIBERIA

CUTTINGTON COLLEGE AND DIVINITY SCHOOL, Suacoco: program in economics and business administration; \$61,000 for a five-year period; (HSS)

## MALAWI

COLLECTION OF BASIC WORKS in international relations for the Ministry of External Affairs; \$4,500; (HSS)

## MALAYSIA

UNIVERSITY OF SINGAPORE: appointment of a visiting lecturer in political science; \$2,000; (HSS)

## MEXICO

AMERICAN BRITISH COWDRAY HOSPITAL, Mexico City: operating costs of nurses' training and physiotherapy programs; \$1,000; (MNS)

COLEGIO DE MEXICO, Mexico City: program in humanities and social sciences; \$82,125 through December, 1967; (HSS)

MEXICAN CENTER OF WRITERS, Mexico City: to encourage creative writing in Latin America; \$30,000 for a five-year period on a part-matching basis; (HSS)

NATIONAL UNIVERSITY OF MEXICO, Mexico City:

Graduate training program in chemistry and biochemistry; \$190,000 for a five-year period; (MNS)

Study of theatre architecture by Juan José Gurrola I., General Department of Cultural Diffusion; \$1,800; (HSS)

## NETHERLANDS

HAGUE ACADEMY OF INTERNATIONAL LAW: for use by the Center for Studies and Research in International Law and International Relations; \$210,000; (HSS)

## NIGERIA

ROCKEFELLER FOUNDATION International Cooperative Program in Virus Research: field operations, virus laboratory, University of Ibadan; *see International, above*;

UNIVERSITY OF LAGOS MEDICAL SCHOOL:

Zacchaeus Ajayi Alabi; to observe administrative practices at medical schools in the United States and Canada; \$3,265; (MNS)

Dr. G. L. Monekosso; to observe medical education and research in North and South America; \$2,925; (MNS)

## NORWAY

CHRISTIAN MICHELSEN INSTITUTE, Bergen: study of the relationships between the economies of developing countries and Western industrialized countries; \$20,000; (HSS)

UNIVERSITY OF OSLO: equipment for the Neurophysiological Laboratory; \$13,500; (MNS)

## PERU

CATHOLIC UNIVERSITY OF PERU, Lima: conference to discuss the exchange of faculty members among Latin American universities; \$4,000; (MNS)

PERUVIAN UNIVERSITY OF MEDICAL AND BIOLOGICAL SCIENCES, Lima:

Equipment for the Department of Biochemistry; \$12,000; (MNS)

Dr. Alberto Hurtado, dean, Faculty of Medicine; travel to the United States in connection with a monograph on high-altitude physiology; \$1,400; (MNS)

## PHILIPPINES

ATENE0 DE MANILA UNIVERSITY: equipment for the Department of Chemistry; \$15,000 through December, 1965; (MNS)

## RHODESIA

UNIVERSITY COLLEGE OF RHODESIA AND NYASALAND, Salisbury:

Dr. Bruce Cruickshank, Faculty of Medicine; to visit medical institutions in Africa, the Far East, North and South America, and Europe; \$5,500; (MNS)

Study of the epidemiology of bilharziasis; \$10,000; (MNS)

Study of manufacturing industries in the regional economy, by D. S. Pearson, Department of Economics; £900 (about \$2,540) for a two-year period; (HSS)

Research on the Eurafriean community of Rhodesia, by Mrs. P. D. Wheeldon, Department of Sociology; £325 (about \$915); (HSS)

Research in African history, by Mr. M. D. D. Newitt, Department of History; £305 (about \$860); (HSS)

Study of political and economic development in Nyasaland during the colonial period, by Dr. Jaap van Velsen, Department of Sociology; £270 (about \$760); (HSS)

## SOUTH AFRICA

UNIVERSITY OF NATAL, Durban: isotope equipment for the Medical School; \$10,000; (MNS)

## TANZANIA

MOROGORO COLLEGE: costs of planning and construction; \$241,197 through January, 1966; (AS)

## TRINIDAD

DR. R. M. F. CHARLES, Ministry of Health and Housing, Port-of-Spain: to visit diagnostic laboratories in England and the United States; \$2,425; (MNS)

## TUNISIA

DR. ADNAN ZMERLI, Faculty of Sciences, University of Tunis: to visit medical education centers in the United States; \$2,000; (MNS)

## TURKEY

MISS SIRIN DEVRIM, Istanbul Municipal Theatre: to visit theatre centers in Europe and North America; \$4,500; (HSS)

### UNIVERSITY OF ANKARA:

Development of the Hacettepe Faculty of Medicine; \$225,000 through December, 1967; (MNS)

Research at King's College, University of London, England, on comparative conflict of laws, by Dr. Gündüz Okçün, Faculty of Political Science; \$1,350; (HSS)

## UNITED KINGDOM

INSTITUTE FOR STRATEGIC STUDIES, London: research on strategic problems in non-Atlantic areas, and support of the general program; \$125,000 through June, 1969; (HSS)

MEDICAL RESEARCH COUNCIL, London: termination of the fellowship program; \$1,000; (MNS)

DR. THOMAS GEORGE PERCIVAL SPEAR, University of Cambridge: to observe developments in the humanities at Indian universities; \$3,775; (HSS)

## UNITED STATES

AMERICAN FRIENDS SERVICE COMMITTEE, Philadelphia, Pennsylvania: conference in South Asia on Indian-Pakistani relations; \$9,000; (HSS)

AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES, Washington, D.C.: to execute a redefined program; \$20,000 for a two-year period; (MNS)

AMERICAN LIBRARY ASSOCIATION, Chicago, Illinois: preparation of an English edition of the *Guide to Japanese Reference Books*; \$15,000; (AS)

AMERICAN UNIVERSITIES FIELD STAFF, New York: preparation of a study on "Freedom and Development"; \$15,000 through January 1, 1966; (HSS)

AMERICAN UNIVERSITY, Washington, D.C.: for use by the School of International Service for seminars for junior diplomats from developing countries; \$15,000 for a two-year period; (HSS)

ASIA SOCIETY, New York: support of its Country Councils program; \$136,500 through June, 1967; (HSS)

ASSOCIATION OF AMERICAN MEDICAL COLLEGES, Evanston, Illinois: travel for foreign educators to the Fourth Latin American Conference of Medical School Faculties, Poços de Caldas, Minas Gerais, Brazil; \$10,000; (MNS)

BROOKINGS INSTITUTION, Washington, D.C.: research in international relations and economics over a period of approximately ten years; \$500,000; (HSS)

BROOKLYN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK: research on the Supreme Court and the Constitutional tradition in America, by Dr. Samuel J. Konefsky, Department of Political Science; \$7,000; (HSS)

COLUMBIA UNIVERSITY, New York:

For use by the School of International Affairs for research in international organization; \$100,000 through August, 1969; (HSS)

Advanced science writing program; \$30,000 through June, 1970; (MNS)

American Assembly; support of the Twenty-seventh Assembly; \$15,000 for a 15-month period; (HSS)

For use by the Law School for training Stanley B. Lubman in Chinese communist law; \$10,000 for a two-year period; (HSS)

Graduate School of Library Service; to secure the services of Dr. Curt Wormann, director, Jewish National and University Library, Jerusalem, Israel; \$10,000; (AS)

DR. ROBERT W. DICKERMAN, Department of Microbiology and Immunology, Cornell University, Ithaca, New York: to visit virus research laboratories in Latin America and the Caribbean; \$2,150; (MNS)

COUNCIL ON FOREIGN RELATIONS, INC., New York: strengthening of the research and writing staff; \$500,000; (HSS)

FLORIDA STATE UNIVERSITY, Tallahassee: to appoint Dr. Webster C. Cash as visiting lecturer in economics at the University College of Rhodesia and Nyasaland, Salisbury; \$4,500; (HSS)

DR. FEDERICO G. GIL, director, Institute of Latin American Studies, University of North Carolina, Chapel Hill: to observe the 1964 presidential election in Chile; \$2,125; (HSS)

HARVARD UNIVERSITY, Cambridge, Massachusetts:

Center for International Affairs; visiting fellowships for non-Western diplomats; \$100,000 through August, 1969; (HSS)

Research on the biology of the corn plant, by Dr. Paul C. Mangelsdorf, Fisher Professor of Natural History; \$55,000 for a three-year period; (AS)

Dr. Edward H. Michelson, School of Public Health; to observe schistosomal research in Latin America; \$2,375; (MNS)

Dr. Thomas H. Weller, School of Public Health; to observe schistosomal research in Brazil; \$750; (MNS)

DR. RICHARD O. HAYES, United States Public Health Service, Greeley, Colorado: to visit virus centers in Latin America; \$2,160; (MNS)

HOSPITALITY AND INFORMATION SERVICE, Washington, D.C.: program for assistance of foreign diplomats stationed in Washington, D.C.; \$3,000; (IP)

INDIANA UNIVERSITY, Bloomington: participation of the International Union of Scientific Psychology in a meeting at the Villa Serbelloni, Bellagio, Italy; \$2,500; (HSS)

INSTITUTE OF INTERNATIONAL EDUCATION, New York: toward construction of its Center for International Education; \$100,000; (IP)

JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland: research at the Center of Foreign Policy Research, Washington, D.C.; \$200,000 for a six-year period; (HSS)

NATIONAL INFORMATION BUREAU, New York: for its general program; \$15,000; (IP)

PRINCETON UNIVERSITY, New Jersey:

Materials for the John Foster Dulles Oral History Project; \$20,000 through September, 1967; (HSS)

Study of the international monetary system; \$15,000; (HSS)

ROCKEFELLER FOUNDATION International Cooperative Program in Virus Research: virus studies at Berkeley, California, and transfer of New York laboratories to Yale University, New Haven, Connecticut; *see International, above*;

SMITHSONIAN INSTITUTION, Washington, D.C.: studies in Brazil of the relationship of birds to arthropod-borne viruses; \$2,998; (MNS)

SOUTHERN REGIONAL COUNCIL, INC., Atlanta, Georgia: contribution to its general program; \$50,000; (IP)

STUDY OF TRAINING AND UTILIZATION of health personnel for underdeveloped countries: general expenses; \$5,000; (MNS)

UNITED HEALTH FOUNDATIONS, INC., New York: supplement to the administrative budget for 1964; \$10,000; (MNS)

UNIVERSITY OF CHICAGO, Illinois:

Research in the Center for the Study of American Foreign and Military Policy; \$67,500 for a five-year period; (HSS)

Research on American penal policy, by Francis A. Allen, University Professor of Law; \$10,000; (HSS)

UNIVERSITY OF MICHIGAN, Ann Arbor:

Study of 1964 Presidential campaign financing, by the Survey Research Center; \$15,000 through December, 1965; (HSS)

Study of voting behavior in Kerala, India, by Dr. Samuel J. Eldersveld, professor of political science; \$6,900; (HSS)

Study of parliamentary representation in Britain, by Dr. Donald E. Stokes, Survey Research Center; \$4,675; (HSS)

To enable Dr. M. Robert B. Klinger to visit institutions of higher education in Latin America; \$3,224; (IP)



UNIVERSITY OF OKLAHOMA, Norman: research on the political behavior of Southern Negroes as an ethnic group, by Dr. Harry A. Holloway, Department of Government; \$13,800 for a 15-month period; (HSS)

UNIVERSITY OF PUERTO RICO, San Juan: for use by the School of Medicine in development of a university-level nursing program; \$10,000; (MNS)

UNIVERSITY OF WISCONSIN, Madison: research in the Department of Pediatrics, by Dr. A. Stekel, University of Chile; \$1,450; (MNS)

WESTERN RESERVE UNIVERSITY, Cleveland, Ohio: compilation of a schistosomiasis bibliography; \$13,000; (MNS)

YALE UNIVERSITY, New Haven, Connecticut:

Operating costs of the Rockefeller Foundation Virus Laboratory; \$170,000; (MNS)

Integration of the Rockefeller Foundation Virus Laboratory and the Department of Epidemiology and Public Health; \$10,000; (MNS)

Research in Europe on German history, by Dr. Hajo Holborn; \$1,800 for a three-year period; (HSS)

## ZAMBIA

COLLECTION OF BASIC WORKS in international relations for the External Affairs Branch, Office of the Prime Minister; \$4,500. (HSS)

# SPECIAL PROGRAMS

## STUDIES IN INTERNATIONAL RELATIONS

AMERICAN UNIVERSITY, Washington, D.C.: study of the contribution made by the "realist" school to the development of international relations theory, by Dr. Whittle Johnston, associate professor of international relations; \$7,500;

BRANDEIS UNIVERSITY, Waltham, Massachusetts:

Study in Southeast Asia of the conduct and control of foreign policy in Southeast Asian countries, by Dr. I. Milton Sacks, associate professor of politics; \$10,000;

Research in the United States and England on slavery, neo-slavery, and forced labor in Portuguese Africa from 1856 onward, by Dr. James E. Duffy, professor of Spanish; \$2,000;

- BRIGHAM YOUNG UNIVERSITY, Provo, Utah:** research in the United Kingdom and Europe on sixteenth and seventeenth century international relations theory, by Dr. De Lamar Jensen, associate professor of history; \$7,950;
- CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK:** research in Europe on the "New Nationalism" and its role in international relations, by Dr. Louis L. Snyder, professor of history; \$4,500;
- COLORADO STATE UNIVERSITY, Fort Collins:** research on the life and thought of Nikolai Bukharin, by Dr. Sidney Heitman, associate professor of history; \$5,500;
- COLUMBIA UNIVERSITY, New York:** research in Hong Kong on political power at the local level, and of the political system, in Communist China, by A. Doak Barnett, associate professor of government; \$15,000;
- CORNELL UNIVERSITY, Ithaca, New York:**
- Research in the United States, Brazil, and Argentina on Britain's role in the modernization of Brazil, 1850-1918, by Dr. Richard Graham, assistant professor of Latin American history; \$13,130;
  - Research on socialism and economic development in Africa, by Dr. Chandler Morse, professor of economics; \$3,680;
- DUKE UNIVERSITY, Durham, North Carolina:** research on contemporary international economic relations, by Dr. Hans W. Gerhard, associate professor of economics; \$5,000;
- GRADUATE INSTITUTE OF INTERNATIONAL STUDIES, Geneva, Switzerland:** study on international protection of group interests, by Dr. Josef J. Lador-Lederer, Ministry for Foreign Affairs, Israel; \$2,000;
- HEBREW UNIVERSITY OF JERUSALEM, Israel:**
- Research in Africa and elsewhere on the diversities and breakdowns of modernization, by Dr. Samuel N. Eisenstadt, chairman, Department of Sociology; \$10,000;
  - Research on the social, political, and cultural status of the Arab minority in Israel, by Dr. Jacob Landau, lecturer in political science; \$7,720;
- HUMBOLDT STATE COLLEGE, Arcata, California:** continued research on the evolution of American policy toward Germany and its impact on German politics after 1945, by John Gimbel, assistant professor of history; \$3,000;
- JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland:** study of the relationship between the Trades Union Congress of Britain and the labor movements in Asia and Africa, by George Lichtblau, senior research analyst, United States Department

of State, and research fellow, School of Advanced International Studies, Washington, D.C.; \$15,000;

**MCGILL UNIVERSITY, Montreal, Canada:** analytical study of Indian foreign policy, by Dr. Michael Brecher, professor of political science; \$13,135;

**OBERLIN COLLEGE, Ohio:** study of British foreign policy in relation to Germany, 1933-1939, by Dr. George A. Lanyi, professor of government; \$12,345;

**SMITH COLLEGE, Northampton, Massachusetts:** study in France of French historians and the German problem in the twentieth century, by Dr. Robert Allan Mitchell, assistant professor of history; \$7,700;

**STATE UNIVERSITY OF IOWA, Iowa City:** study of the American delegation at the Paris Peace Conference of 1919-1920, by Dr. Lawrence E. Gelfand, assistant professor of history; \$8,550;

**UNIVERSITY OF CALIFORNIA, Los Angeles:** study in Britain of British defense policy, 1951-1955, by Dr. Richard N. Rosecrance, associate professor of political science; \$11,270;

**UNIVERSITY OF CAMBRIDGE, England:**

St. John's College; history of British foreign policy since the Crimean war, by Francis H. Hinsley, fellow and university lecturer in history; \$3,500;

Churchill College; study in Britain and the United States of naval policy and strategy, 1918-1939, by Captain S. W. Roskill, senior research fellow; \$1,830;

**UNIVERSITY OF LONDON, England:**

School of Slavonic and East European Studies; research in Asia and South America on land reform principles and practices, by Dr. Doreen Warriner, reader in economic and social studies of Eastern Europe; \$9,431;

London School of Economics and Political Science; study of British foreign policy, 1917-1941, by Dr. F. S. Northedge, reader in international relations; \$2,800;

**UNIVERSITY OF MELBOURNE, Australia:** study of the impact of Europe on the world economy in the last two centuries, by Professor William Woodruff, dean of the Faculty of Economics; \$6,820;

**UNIVERSITY OF NOTRE DAME, Indiana:** research in Europe and North America on modern diplomacy, by Stephen Kertesz, Franklin Miles Professor of Political Science; \$13,500 for a 19-month period;

**UNIVERSITY OF OXFORD, England, Hertford College:** study of the decision-making

process of the International Labour Organisation, by John F. McMahon, fellow and lecturer in law; \$1,835;

UNIVERSITY OF PAVIA, Italy: research in England and Italy on the spread of modern civilization to the Near and Far East, by Dr. Giorgio Borsa, professor of modern history; \$3,500;

UNIVERSITY OF PENNSYLVANIA, Philadelphia: research on the monetary diplomacy of the United States, 1865-1965, by Dr. Jeannette E. Nichols, associate professor of history; \$2,500;

UNIVERSITY OF SUSSEX, Brighton, England: study of the role of interest groups in the European Communities, by Dr. Roy Pryce, lecturer-elect in political science; \$8,960;

YALE UNIVERSITY, New Haven, Connecticut:

For use by its Law School in a study of international law precedents and practices with respect to the nationalization of property, by Burns H. Weston, attorney-at-law; \$10,000;

Study of contemporary Western European political theory concerning the nature of the state or political community, by Dr. David P. Calleo, assistant professor of political science; \$8,500.

## STUDIES IN CONSTITUTIONAL DEMOCRACY

BRYN MAWR COLLEGE, Pennsylvania: research on the problem of elites in modern democratic thought, by Dr. Peter Bachrach, associate professor of political science; \$7,500;

COLUMBIA UNIVERSITY, New York: research abroad on non-judicial mechanisms for reviewing administrative acts, by Professor Walter Gellhorn, Betts Professor of Law; \$12,000 for a 15-month period;

GEORGE WASHINGTON UNIVERSITY, Washington, D.C.: research on apportionment, districting, and representative government, by Dr. Robert G. Dixon, Jr., professor of law; \$14,450;

HARVARD UNIVERSITY, Cambridge, Massachusetts: research on politics, political theory, and constitutionalism in eighteenth-century America, by Dr. Bernard Bailyn, professor of history; \$8,000;

MIAMI UNIVERSITY, Oxford, Ohio: research in Italy on the Italian Communist Party and, particularly, its social service and welfare activities, by Dr. Herbert Waltzer, associate professor of government; \$10,875;

**PRINCETON UNIVERSITY, New Jersey:** research in Europe on Western democracies in relation to the scientific revolution, by Dr. Robert G. Gilpin, Jr., assistant professor of politics and public affairs; \$9,900 for a 15-month period;

**SWARTHMORE COLLEGE, Pennsylvania:** research on five major traditions in American political thought and their relationship to public policy, by Dr. David G. Smith and Dr. Charles E. Gilbert, associate professors of political science; \$11,500;

**STANFORD UNIVERSITY, California:** research in the United States and Japan on the role of the Japanese defense establishment in postwar decision-making, by Dr. Nobutaka Ike, professor of political science; \$7,350;

**UNIVERSITY OF CHICAGO, Illinois:** study of Congressional representation, 1945-1964, by Dr. Duncan MacRae, Jr., associate professor of political science; \$5,000;

**UNIVERSITY OF MICHIGAN, Ann Arbor:** study of party leadership in the Delhi area of India, by Dr. Samuel J. Eldersveld, professor of political science; \$2,000;

**UNIVERSITY OF NEW ENGLAND, Armidale, Australia:** research in England and the United States on English republican and democratic movements, 1642-1660, by Dr. C. M. Williams, professor of history; \$3,000;

**VANDERBILT UNIVERSITY, Nashville, Tennessee:** research in the United States and England on the role and control of secret intelligence organizations in constitutional democracies, by Dr. Harry Howe Ransom, associate professor of political science; \$13,775.



**FELLOWS AND SCHOLARS • 1964**





## FELLOWS AND SCHOLARS

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*F: Fellow; S: Scholar; MNS: Medical and Natural Sciences;  
AS: Agricultural Sciences; HSS: Humanities and Social Sciences*

### INTERNATIONAL

LUIZ FONSECA M.S., University of Wisconsin, 1959. Economics and Sociology—Communications. Appointed from Inter-American Institute of Agricultural Sciences, Costa Rica. Place of study: U.S.A. s-AS

JOEL MALTOS ROMO M.S., Inter-American Institute of Agricultural Sciences, Costa Rica, 1960. Animal Science—Animal Husbandry. Appointed from Inter-American Institute of Agricultural Sciences. Place of study: U.S.A. s-AS

MARIA DOLORES MALUGANI University of the Republic, Uruguay, 1961. Library Science. Appointed from Inter-American Institute of Agricultural Sciences, Costa Rica. Place of study: U.S.A. s-HSS

RENE LIONEL MANNING D.T.M. and H., University of Sydney, Australia, 1962. Public Health. Appointed from World Health Organization, Switzerland. Place of study: England. F-MNS

RODOLFO EDUARDO QUIROS-GUARDIA M.S., Michigan State University, 1962. Economics. Appointed from Inter-American Institute of Agricultural Sciences, Costa Rica. Place of study: U.S.A. s-AS

OLGA VERDERESE B.S., Columbia University, 1953. Nursing Service Administration. Appointed from World Health Organization, Switzerland. Place of study: U.S.A. F-MNS

### ARGENTINA

AGUSTIN AOKI M.D., University of Córdoba, 1961. Histology and Embryology. Appointed from University of Cuyo. Place of study: U.S.A. F-MNS

ANGELICA RIMEDIO DE CICCARONE R.N., National School of Public Health Nursing, 1959. Nursing Service Administration. Appointed from Center for Medical Education and Clinical Investigation. Place of study: Uruguay. s-MNS

ENRIQUE RENE ERNIE Ing.Agr., University of Buenos Aires, 1953. Plant Science. Appointed from National Institute of Agricultural and Livestock Technology. Place of study: U.S.A. s-AS

CARLOS HORACIO MAGIS Ph.D., University of Madrid, Spain, 1958. Literature. Appointed from University of Cuyo. Place of study: Mexico. s-BSS

NORMA CIRCE MAGNELLI M.D., University of Cuyo, 1962. Medical Genetics. Appointed from University of Cuyo. Place of study: Brazil. F-MNS

AMERICO MARQUEZ M.D., University of Córdoba, 1960. Virology. Appointed from University of Córdoba. Place of study: Trinidad. F-MNS

JUAN F. MARSAL LL.D., University of Barcelona, Spain, 1961. Sociology. Appointed from National Council of Scientific and Technical Research. Place of study: U.S.A. s-BSS

EDMUNDO ALFREDO RUVEDA Ph.D., University of Buenos Aires, 1962. Organic Chemistry. Appointed from University of Buenos Aires. Place of study: England. F-MNS

EVITO ENRIQUE TOMBETTA Ing.Agr., University of Buenos Aires, 1957. Plant Science—Agronomy. Appointed from National Institute of Agricultural and Livestock Technology. Place of study: U.S.A. s-AS

JOSE MARIA TRIFARO M.D., University of Buenos Aires, 1961. Pharmacology. Appointed from University of Buenos Aires. Place of study: U.S.A. F-MNS

MARINO JOSE ROBERTO ZAFFANELLA Ing.Agr., University of Buenos Aires, 1947. Plant Science—Agronomy. Appointed from National Institute of Agricultural and Livestock Technology. Place of study: U.S.A. s-AS

## BRAZIL

MARIA NELDA DE ANDRADE R.N., University of Recife, 1961. Public Health Nursing. Appointed from University of Recife. Place of study: Chile. s-MNS

JOSE ANTUNES-RODRIGUES M.D., University of São Paulo, Ribeirão Preto, 1959. Neurophysiology. Appointed from University of São Paulo. Place of study: U.S.A. F-MNS

IVAN FIORE DE CARVALHO M.D., University of São Paulo, Ribeirão Preto, 1958. Immunopathology. Appointed from University of São Paulo. Place of study: U.S.A. F-MNS

- OTTO JESU CROCOMO** Agron., University of São Paulo, Piracicaba, 1956. Soils. Appointed from University of São Paulo. Place of study: U.S.A. F-AS
- FLORIPES CAVALCANTE FARIAS** R.N., Florence Nightingale School of Nursing, 1951. Nursing Education. Appointed from University of Bahia. Place of study: U.S.A. S-MNS
- FRANCISCO FERRAZ DE TOLEDO** Ph.D., University of São Paulo, Piracicaba, 1959. Plant Science—Seed Technology. Appointed from University of São Paulo. Place of study: U.S.A. F-AS
- JOSE ROBERTO GIGLIO** Ph.D., University of São Paulo, Ribeirão Preto, 1962. Biochemistry. Appointed from University of São Paulo. Place of study: U.S.A. F-MNS
- RUDOLF LOUIS HAUSMANN** M.D., University of Brazil, 1955. Physiology and Biochemistry of Deoxyribonucleic Acid. Appointed from University of Brazil. Place of study: U.S.A. F-MNS
- RENATO SIMPLICIO LOPES** B.S., Rural University of the State of Minas Gerais, Viçosa, 1955. Rural Sociology. Appointed from Credit and Technical Assistance Association. Place of study: U.S.A. S-ISS
- NILO JOSE PEREIRA LUZ** M.D., University of Rio Grande do Sul, 1949. Obstetrical Physiology. Appointed from University of Rio Grande do Sul. Place of study: Uruguay. F-MNS
- MARIO ITHAMAR MONTAGNINI** Agron., University of São Paulo, Piracicaba, 1955. Plant Science—Agronomy. Appointed from São Paulo State Secretariat of Agriculture, São Paulo. Place of study: U.S.A. S-AS
- EDUARDO MOTTA ALVES PEIXOTO** B.S., University of São Paulo, São Paulo, 1961. Physical Organic Chemistry. Appointed from University of São Paulo. Place of study: U.S.A. S-MNS
- HUGO PEREIRA GODINHO** D.V.M., University of Minas Gerais, Belo Horizonte, 1958. Veterinary Science. Appointed from University of Minas Gerais. Place of study: U.S.A. S-AS
- HANS GOTTFRIED SCHEUENSTUHL** B.S., National School of Statistical Sciences, Rio de Janeiro, 1961. Mathematics—Mathematical Statistics. Appointed from University of Brasília. Place of study: U.S.A. S-MNS
- BAZILICIA CATHARINA DE SOUZA** D.V.M., University of Rio Grande do Sul, 1954. Biochemistry. Appointed from University of Rio Grande do Sul. Place of study: Argentina. F-MNS

**OLGA ROSARIA VIZZOTTO** R.N., Marie Ana Moeller School of Nursing, 1960. Nursing Education. Appointed from University of Rio Grande do Sul. Place of study: U.S.A. S-MNS

**EDUARDO ZINK** Ing.Agr., University of São Paulo, Piracicaba, 1961. Plant Science--Seed Technology. Appointed from São Paulo State Secretariat of Agriculture, Campinas. Place of study: U.S.A. S-AS

## CHILE

**MARIO EDUARDO ALBORNOZ GALDAMEZ** M.A., University of Chicago, 1960. Economics. Appointed from Catholic University of Chile. Place of study: U.S.A. S-HSS

**CLAUDIO BARROS** B.Sc., Catholic University of Chile, 1960. Basic Medical Sciences. Appointed from Catholic University of Chile. Place of study: U.S.A. S-MNS

**PATRICIO CORDERO (SIMUNOVIC)** M.S., University of Chile, Santiago, 1964. Physics. Appointed from University of Chile. Place of study: England. S-MNS

**JUAN FERNANDEZ HIDALGO** Lic., University of Chile, Santiago, 1955. Neurocytology. Appointed from University of Chile. Place of study: U.S.A. F-MNS

**SAMY FRENK GUILOFF** D.D.S., University of Chile, Santiago, 1958. Neurophysiology. Appointed from University of Chile. Place of study: U.S.A. F-MNS

**LUIS GOMBEROFF (JAKLES)** M.S., University of Chile, Santiago, 1964. Physics. Appointed from University of Chile. Place of study: England. S-MNS

**HECTOR ANDRES GONZALEZ QUINTANA** D.V.M., University of Chile, Santiago, 1956. Veterinary Science. Appointed from University of the South. Place of study: U.S.A. S-AS

**FEDERICO LEIGHTON PUGA** M.D., Catholic University of Chile, 1962. Basic Medical Sciences. Appointed from Catholic University of Chile. Place of study: U.S.A. F-MNS

**CARLOS A. MASSAD** M.A., University of Chicago, 1958. Economics. Appointed from University of Chile, Santiago. Place of study: U.S.A. S-HSS

**RAFAEL PESSOT** Agron., University of the South, 1961. Plant Science--Agronomy. Appointed from University of the South. Place of study: U.S.A. S-AS

**DOMINGO SANCHEZ CARO** B.S., University of Florida, 1964. Sociology. Appointed while studying at University of Florida. Place of study: U.S.A. S-HSS

MANUEL SANCHEZ (NELSON) Agron., University of Chile, Santiago, 1943. Economics and Sociology—Agricultural Extension. Appointed from Ministry of Agriculture. Place of study: U.S.A. F-AS

MARCELO SELOWSKY NOTHENBERG Comm.Eng., Catholic University of Chile, 1964. Economics. Appointed from University of Chile, Santiago. Place of study: U.S.A. S-HSS

HERNAN TEJEDA (SANHUEZA) Agron., University of Concepción, 1963. Soil Science. Appointed from Ministry of Agriculture. Place of study: Mexico. S-AS

ALFREDO VIDAURRE VALDES Comm.Eng., Catholic University of Chile, 1963. Economics. Appointed from Catholic University of Chile. Place of study: U.S.A. S-HSS

## COLOMBIA

INES ABAD CORREA R.N., National University of Colombia, Bogotá, 1955. Nursing Service Administration. Appointed from University of Valle. Place of study: Uruguay. S-MNS

JULIO AGUIRRE QUINTERO University of Antioquia, 1960. Library Science. Appointed from University of Valle. Place of study: U.S.A. S-HSS

JAIRO ALVAREZ GAVIRIA B.S., Bolívar University, 1960. Mathematics. Appointed from University of Valle. Place of study: U.S.A. S-MNS

ORLANDO ALVAREZ LOZANO M.D., University of Cartagena, 1954. Psychiatry. Appointed from University of Cartagena. Place of study: Colombia. F-MNS

JOSE MANUEL DE BERNARDO ALVAREZ RICO M.S., Purdue University, 1962. Animal Science—Nutrition and Physiology. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. S-AS

FERNANDO ARBOLEDA Ing.Agr., National University of Colombia, Bogotá, 1957. Plant Science—Genetics and Breeding. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. S-AS

ENRIQUE CASTELLANOS MOLINA Chem.Eng., University of Valle, 1962. Engineering Physics. Appointed from University of Valle. Place of study: U.S.A. S-MNS

EDGAR CEBALLOS BUENO D.V.M., University of Caldas, 1961. Animal Science—Nutrition and Physiology. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. S-AS

- GRACIELA CHAVEZ R.N., University of Valle, 1955. Public Health Nursing. Appointed from University of Valle. Place of study: Chile. s-MNS
- CARLOS FRANCISCO CORREDOR M.S., University of Missouri, 1962. Biochemistry. Appointed from University of Valle. Place of study: U.S.A. s-MNS
- CARLOS JOSE CUELLO M.D., National University of Colombia, Bogotá, 1959. Surgical Pathology. Appointed from University of Valle. Place of study: U.S.A. F-MNS
- PEDRO DUENAS Econ., National University of Colombia, Bogotá, 1961. Economics. Appointed from University of Valle. Place of study: U.S.A. s-HSS
- TERESA GARCIA FIGUERO B.S., University of the Andes, 1958. Economics. Appointed from University of Caldas. Place of study: U.S.A. s-AS
- VIVAR GOMEZ MARIN R.N., University of Valle, 1955. Public Health Nursing. Appointed from University of Valle. Place of study: Puerto Rico. F-MNS
- DANIEL GUILLERMO GOMEZ-VERGARA B.S., University of Valle, 1964. Neuroanatomy and Neurochemistry. Appointed from University of Valle. Place of study: U.S.A. s-MNS
- GUILLERMO A. GUERRA E. Ing.Agr., National University of Colombia, Medellín, 1960. Economics. Appointed from National University of Colombia. Place of study: U.S.A. s-HSS
- JAIME GUTIERREZ SANCHEZ Ing.Agr., National University of Colombia, Medellín, 1962. Economics and Sociology. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. s-AS
- RAUL HERNANDEZ MEDINA M.D., University of Valle, 1962. Public Health. Appointed from University of Valle. Place of study: U.S.A. F-MNS
- FABIO HIGUITA Ing.Agr., National University of Colombia, Medellín, 1964. Plant Science—Horticulture. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. s-AS
- MARICEL MANFREDI TRULLAS R.N., University of Valle, 1960. Nursing Education. Appointed from University of Valle. Place of study: U.S.A. s-MNS
- CARLOS MANZANO ROMERO M.D., National University of Colombia, Bogotá, 1952. Gastrointestinal Physiopathology. Appointed from University of Valle. Place of study: U.S.A. F-MNS
- GERMAN MEJIA GIRALDO M.S., Purdue University, 1962. Soil Science. Appointed from University of Caldas. Place of study: U.S.A. s-AS

JOSE ANTONIO MURGUEITO VALENCIA Lic., Pedagogical and Technological University of Colombia, 1959. Mathematics. Appointed from University of Valle. Place of study: U.S.A. s-MNS

CARMEN ZULEMA PLATA BARRAGAN R.N., National University of Colombia, Bogotá, 1952. Nursing Education. Appointed from University of Valle. Place of study: U.S.A. F-MNS

GUSTAVO RAVE VALENCIA D.V.M., University of Caldas, 1959. Animal Science—Veterinary Science. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. s-AS

MANUEL JESUS ROSERO MORAN M.S., University of Minnesota, 1961. Plant Science—Genetics and Breeding. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. s-AS

ALFREDO SERRANO D.V.M., National University of Colombia, Bogotá, 1959. Animal Science—Nutrition and Physiology. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. s-AS

RAMIRO TOBON RAMIREZ Chem.Eng., University of Antioquia, 1962. Physics. Appointed from University of Valle. Place of study: U.S.A. s-MNS

LUIS ANGEL VALBUENA Ing.Agr., National University of Colombia, Bogotá, 1951. Plant Science—Agronomy. Appointed from Colombian Cereals Institute. Place of study: U.S.A. s-AS

ALDEMAR VALENCIA M. Lic., University of Caldas, 1962. Linguistics. Appointed from University of Valle. Place of study: U.S.A. s-HSS

JAIME VERGARA VERGARA D.V.M., University of Caldas, 1961. Animal Science—Animal Husbandry. Appointed from Colombian Institute of Agriculture. Place of study: U.S.A. s-AS

YALILA YODA R.N., University of Valle, 1960. Nursing Education. Appointed from University of Valle. Place of study: U.S.A. s-MNS

## COSTA RICA

ALVARO DARIO CORDERO ROJAS M.S., Louisiana State University, 1962. Entomology. Appointed from University of Costa Rica. Place of study: U.S.A. s-AS

RODRIGO GAMEZ-LOBO M.S., University of Florida, 1961. Plant Science—Pathology. Appointed from University of Costa Rica. Place of study: U.S.A. s-AS

**FLERIDA HERNANDEZ** Ing.Agr., University of Costa Rica, 1961. Biometry. Appointed from University of Costa Rica. Place of study: U.S.A. S-AS

## **ECUADOR**

**FAUSTO ALEJANDRO CEVALLOS BARRIGA** Ing.Agr., Central University, 1958. Plant Science—Agronomy. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. S-AS

**PABLO ENRIQUE LARREA HERRERA** Ing.Agr., Central University, 1957. Plant Science—Genetics and Breeding. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. S-AS

**LUIS GUALBERTO MERINO MANCHENO** Ing.Agr., Central University, 1952. Entomology. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. S-AS

**VICTOR A. VAZQUEZ** Ing.Agr., Central University, 1954. Entomology. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. S-AS

## **ETHIOPIA**

**ASRAT FELLEKE** M.S., University of Nebraska, 1962. Plant Science—Genetics and Breeding. Appointed from Haile Sellassie I University. Place of study: U.S.A. S-AS

**WOODENHE TADESSE** B.S., Haile Sellassie I University, 1961. Plant Science—Genetics and Breeding. Appointed from Haile Sellassie I University. Place of study: U.S.A. S-AS

**DAGNATCHEW YIRGOU** M.S., Purdue University, 1961. Plant Science—Pathology. Appointed from Ministry of Agriculture. Place of study: U.S.A. S-AS

## **GERMANY**

**PETER WEBER-SCHAFFER** Dr.phil., University of Munich, 1958. Political Science. Appointed from University of Munich. Place of study: U.S.A. F-HSS

## **GUATEMALA**

**JOSE DE JESUS CASTRO UMANA** M.S., Iowa State College of Science and Technology, 1951. Entomology. Appointed from University of San Carlos. Place of study: U.S.A. S-AS



## HAITI

LESLIE F. MANIGAT Dipl. d'Etudes Supérieures, University of Paris, France, 1953. International Relations. Appointed from National Foundation of Political Sciences, Paris, France. Places of study: U.S.A. and France. F-HSS

## HONDURAS

CARLOS FRANCISCO BURGOS M.S., University of Florida, 1962. Soils. Appointed from Pan American Agricultural School. Place of study: U.S.A. S-AS

## INDIA

RAMESH CHANDRA AGRAWAL M.S., Government Agricultural College, Kanpur, 1955. Economics. Appointed from U.P. Agricultural University. Place of study: U.S.A. S-AS

YOGESH CHANDRA ARYA B.S., Allahabad Agricultural Institute, 1956. Agricultural Engineering. Appointed from Rockefeller Foundation Indian Agricultural Program. Place of study: U.S.A. S-AS

RACHEL CHACKO B.S., Christian Medical College, Vellore, 1959. Public Health Nursing. Appointed from Christian Medical College. Place of study: U.S.A. S-MNS

HARENDRA SINGH CHAUHAN M.Agr.Engin., Indian Institute of Technology, Kharagpur, 1959. Engineering. Appointed from U.P. Agricultural University. Place of study: U.S.A. S-AS

GEORGE CHERIAN M.D., Christian Medical College, Vellore, 1959. Cardiology. Appointed from Christian Medical College. Place of study: U.S.A. F-MNS

BHALCHANDRA CHIMANLAL DAVE M.S., Indian Agricultural Research Institute, 1958. Plant Science--Genetics and Breeding. Appointed from Department of Agriculture, Ahmedabad. Place of study: U.S.A. S-AS

MRUDULA JATASHANKER DAVE M.Sc., University of Bombay, 1957. Biology. Appointed from Indian Cancer Research Centre. Place of study: Japan. S-MNS

OM PARKASH GAUTAM M.Sc., Ohio State University, 1959. Animal Science--Veterinary Science. Appointed from Punjab Agricultural University, Hissar. Place of study: U.S.A. S-AS

- OM PRAKASH GOYAL** Ph.D., University of Delhi, 1960. Political Science. Appointed from Panjab University. Place of study: U.S.A. F-HSS
- JAGDEV SINGH GULERIA** D.M., All India Institute of Medical Sciences, 1963. Applied Cardiorespiratory Physiology. Appointed from All India Institute of Medical Sciences. Place of study: Canada. F-MNS
- ISHWAR CHANDRA MAHAPATRA** B.Sc., University of Delhi, 1953. Plant Science—Agronomy. Appointed from Central Rice Research Institute. Place of study: U.S.A. S-AS
- DARSHAN SINGH PADDA** M.Sc., Punjab Agricultural University, Ludhiana, 1961. Plant Science—Genetics and Breeding. Appointed from Punjab Agricultural University. Place of study: U.S.A. S-AS
- DHARAM VIR SINGH RANA** M.Sc., Indian Agricultural Research Institute, 1963. Plant Science—Seed Technology. Appointed from National Seeds Corporation, Ltd. Place of study: U.S.A. S-AS
- PEJAVAR RAMANAND RAO** M.Sc., Banaras University, 1954. Economics and Sociology. Appointed from Indian Agricultural Research Institute. Place of study: U.S.A. S-AS
- TALUR SESHAGIRI RAO** M.S., University of Tennessee, 1960. Soil Science. Appointed from Department of Agriculture, Mysore State. Place of study: U.S.A. S-AS
- AJIT SINGH** M.Sc., Ohio State University, 1958. Animal Science—Veterinary Science. Appointed from Punjab Agricultural University, Hissar. Place of study: U.S.A. S-AS
- RAM NATH SINGH** Ph.D., Agra University, 1957. Plant Science—Horticulture. Appointed from Agra University. Place of study: Canada. F-AS
- SHYAM NARAIN SINGH** M.S., Cornell University, 1958. Economics and Sociology. Appointed from Indian Agricultural Research Institute. Place of study: U.S.A. S-AS
- DALBIR SINGH DEV** M.Sc., Ohio State University, 1961. Animal Science—Genetics and Breeding. Appointed from Punjab Agricultural University, Ludhiana. Place of study: U.S.A. S-AS
- TEJINDER HARPAL SINGH ROY** M.S., Government Agricultural College, Ludhiana, 1957. Plant Science—Genetics and Breeding. Appointed from Punjab Agricultural University, Chandigarh. Place of study: U.S.A. S-AS

## INDONESIA

WILLIBRORDUS SURENDRA RENDRA Drama. Place of study: U.S.A. F-HSS

## JAPAN

TOMIO HIROHATA M.D., Kyushu University, 1960. Public Health. Appointed from Kyushu University. Place of study: U.S.A. F-MNS

NOBUO KUMADA M.D., University of Tokyo, 1949. Medical Entomology. Appointed from Tokyo Medical and Dental University. Place of study: U.S.A. F-MNS

SHIRO NII M.D., Ph.D., Osaka University, 1956, 1961. Virology and Cytology. Appointed from Osaka University. Place of study: U.S.A. F-MNS

MASANORI OTSUKA M.D., University of Tokyo, 1955. Neurophysiology. Appointed from University of Tokyo. Place of study: U.S.A. F-MNS

NAOHIKO TANAKA M.D., Yokohama City University, 1950. Virology. Appointed from Yokohama City University. Place of study: U.S.A. F-MNS

YASUHIRO TOKUMURA B.A., Yokohama City University, 1958. Library Service. Appointed from Osaka University. Place of study: U.S.A. S-MNS

## KENYA

JOHN JOSEPH OKUMU M.A., University of California, Los Angeles, 1964. Political Science. Appointed while studying at University of California. Place of study: U.S.A. S-HSS

JAMES REUBEN OLEMO M.S., Purdue University, 1963. Plant Science—Agronomy. Appointed while studying at Purdue University. Place of study: U.S.A. S-AS

ZACHARY THEODORE ONYONKA B.A., Inter-American University, San Germán, Puerto Rico, 1963. Economics. Appointed while studying at Syracuse University. Place of study: U.S.A. S-HSS

AHMED IDHA SALIM B.A., University of Leeds, England, 1960. History. Appointed from University College, Dar es Salaam, Tanzania. Place of study: Great Britain. S-HSS

## LEBANON

NEIL JOHN QUINN BRATTON M.A., University of Oxford, England, 1964. Linguistics. Appointed from American University of Beirut. Place of study: U.S.A. S-HSS

**JEAN JUBRAN REBEIZ** M.D., American University of Beirut, 1962. Neuropathology. Appointed from American University of Beirut. Place of study: U.S.A. F-MNS

**SAMIR MENAS SEIKALY** M.A., American University of Beirut, 1962. History. Appointed from American University of Beirut. Place of study: England. s-HSS

## **M A L A W I**

**JAMES STEWART KAMINJOLO** Bristol University, England, 1962. Veterinary Science. Appointed from Ministry of Natural Resources, Surveys and Social Development. Place of study: Kenya. s-AS

## **M A L A Y S I A**

**LEONG SOW-THENG** M.A., Harvard University, 1963. History. Appointed from University of Malaya. Place of study: U.S.A. s-HSS

**PETER TING WEN-POH** B.S., University of Queensland, Australia, 1957. Plant Science-Pathology. Appointed from Department of Agriculture, Kuala Lumpur. Place of study: U.S.A. s-AS

## **M E X I C O**

**CELIO BARRIGA SOLORIO** M.S., Michigan State University, 1959. Plant Science-Agronomy. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

**MIGUEL CABALLERO DELOYA** Ing.Agr., National School of Agriculture, 1963. Plant Science-Genetics and Breeding. Appointed from National Institute for Forestry Research. Place of study: U.S.A. s-AS

**ARMANDO CAMPOS VELA, VI** M.S., University of Wisconsin, 1962. Plant Science-Pathology. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

**JOSE LUIS CARRILLO SANCHEZ** M.S., Oregon State University, 1962. Entomology. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

**EDUARDO CASAS DIAZ** M.S., University of North Carolina, Raleigh, 1961. Plant Science-Genetics and Breeding. Appointed from National School of Agriculture. Place of study: U.S.A. s-AS

- MANUEL CASAS PEREZ D.V.M.**, National University of Mexico, 1963. Animal Science—Animal Husbandry. Appointed from National Institute for Livestock Research. Place of study: U.S.A. s-AS
- MARIO CASTRO GIL M.S.**, National School of Agriculture, 1962. Plant Science—Genetics and Breeding. Appointed from International Center for Corn and Wheat Improvement. Place of study: U.S.A. s-AS
- HEBERTO ESPARZA BORGES D.V.M.**, National University of Mexico, 1964. Veterinary Science—Pathology. Appointed from National Institute for Livestock Research. Place of study: U.S.A. s-AS
- MARIO FERRER-FERNANDEZ M.S.**, Louisiana State University, 1960. Plant Science—Agronomy. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS
- HOMERO GAONA RODRIGUEZ M.S.**, Cornell University, 1959. Plant Science—Pathology. Appointed from Technological Institute and School of Advanced Studies. Place of study: U.S.A. s-AS
- GONZALO GRANADOS REYNAUD Ing.Agr.**, National School of Agriculture, 1963. Entomology. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS
- ELISEO MANUEL HERNANDEZ-BAUMGARTEN D.V.M.**, National University of Mexico, 1962. Veterinary Science. Appointed from Ministry of Agriculture, Tacuba. Place of study: U.S.A. s-AS
- ELENA HERNANDEZ-CASAS M.A.**, National University of Mexico, 1958. History. Appointed from National University of Mexico. Place of study: France. s-HSS
- HORACIO HERNANDEZ-HERNANDEZ Chemist**, National Polytechnic Institute, 1955. Chemistry. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS
- BLANCA ESTELLA MIYAMOTO MATSUMOTO B.A.**, National University of Mexico, 1960. Library Science. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS
- MINERVA MORALES MORALES M.A.**, Stanford University, 1962. International Relations. Appointed from Colegio de México. Place of study: U.S.A. s-HSS
- ROBERTO NUNEZ-ESCOBAR M.S.**, University of California, Davis, 1961. Soil Science. Appointed from National School of Agriculture. Place of study: U.S.A. s-AS

SEBASTIAN ROMERO COVA M.S., West Virginia University, 1961. Plant Science—Pathology. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

BERNARDO SEPULVEDA Lic.(Law), National University of Mexico, 1963. International Law. Appointed from National University of Mexico. Place of study: England. s-HSS

ANTONIO TURRENT FERNANDEZ M.S., National School of Agriculture, 1962. Soil Science. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

PABLO VELASQUEZ GALLARDO M.S., Columbia University, 1958. Library Science. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

EVANGELINA VILLEGAS MORENO M.S., Kansas State University, 1963. Chemistry. Appointed from National Institute of Agricultural Research. Place of study: U.S.A. s-AS

## MOROCCO

MOHAMED M. BENAÏSSA B.A., University of Minnesota, 1964. Education. Appointed from Moroccan Radio and Television System. Place of study: U.S.A. s-HSS

## NATIONAL REPUBLIC OF CHINA

CHIEN-PAN CHENG B.S., National Taiwan University, 1953. Plant Science—Genetics and Breeding. Appointed from Joint Commission on Rural Reconstruction. Place of study: U.S.A. s-AS

CHI-LIN LUH M.S., Texas Agricultural and Mechanical College, 1948. Plant Science—Agronomy. Appointed from Joint Commission on Rural Reconstruction. Place of study: U.S.A. F-AS

## NICARAGUA

CARLOS ROBERTO PINEDA C. M.S.A., Virginia Polytechnic Institute, 1961. Plant Science—Genetics and Breeding. Appointed from Ministry of Agriculture and Livestock Technology. Place of study: U.S.A. s-AS

## NIGERIA

- JOHN NDUKA ABAELU M.S., University of London, England, 1962. Economics and Sociology. Appointed from University of Ibadan. Place of study: U.S.A. s-AS
- EBUN OLUFUNKE AFONJA S.R.N., University of Ibadan, 1960. Nursing Education. Appointed from University of Ibadan. Place of study: U.S.A. s-MNS
- AMECHI ANUMONYE M.B.,B.S., University of Ibadan, 1962. Teaching and Psychopharmacological Research. Appointed from University of Ibadan. Place of study: United Kingdom. F-MNS
- BEATRICE ADENIKE AWOGA B.A., University of Ibadan, 1964. Sociology. Appointed from University of Ibadan. Place of study: U.S.A. s-HSS
- GABRIEL MOJISOLA BABATUNDE B.Sc., University of Ibadan, 1963. Animal Science-Animal Husbandry. Appointed from University of Ibadan. Place of study: U.S.A. s-AS
- THEOPHILUS AYO BANKOLE B.A., University of Cambridge, England, 1964. Music. Appointed from University of Ibadan. Place of study: U.S.A. s-HSS
- AYO OMAXONE BINITIE M.B.,B.S., University of Ibadan, 1963. Psychiatry. Appointed from University of Ibadan. Place of study: Scotland. F-MNS
- AZUKA ANTHONY DIKE B.A., Brandeis University, 1964. Sociology. Appointed from University of Ibadan. Place of study: U.S.A. s-HSS
- MICAH IKECHUKU EZUEH B.Sc., University of Ibadan, 1963. Entomology. Appointed from West African Institute for Trypanosomiasis Research, Kaduna. Place of study: U.S.A. s-AS
- GAIUS IGBOELI B.Sc., University of Ibadan, 1963. Animal Science-Poultry Husbandry. Appointed from University of Ibadan. Place of study: U.S.A. s-AS
- YAKUBU MAGAJI B.Sc., University of Ibadan, 1963. Chemistry. Appointed from West African Institute for Trypanosomiasis Research, Kaduna. Place of study: England. s-AS
- ARHYEL SIKUMTA MSHELBWALA B.Sc., University of Ibadan, 1963. Veterinary Science-Parasitology. Appointed from West African Institute for Trypanosomiasis Research, Kaduna. Place of study: Great Britain. s-AS
- CHU OKONGWU Ph.D., Harvard University, 1965. Economics. Appointed while studying at Harvard University. Place of study: Netherlands. F-HSS

**OLATUNDE OLOKO** B.A., University of Durham, Newcastle-upon-Tyne, England, 1959. Sociology. Appointed from University of Ibadan. Place of study: U.S.A. s-HSS

**DAVID EHIGIE JAMES OSIFO** B.Sc., University College, Ibadan, 1952. Economics. Appointed from University of Ibadan. Place of study: U.S.A. s-HSS

**HARUNA MOMODU YESUFU** Fellow, Institute of Medical Laboratory Technology, London, England, 1960. Veterinary Science—Parasitology. Appointed from West African Institute for Trypanosomiasis Research, Kaduna. Place of study: U.S.A. s-AS

## **NORWAY**

**JAN SERCK-HANSEN** Cand.Econ., University of Oslo, 1957. Economics. Appointed from University of Oslo. Place of study: U.S.A. F-HSS

## **PANAMA**

**JOSE ALBERTO MARTINI** M.S., University of Arkansas, 1958. Plant Science—Agronomy. Appointed from University of Panama. Place of study: U.S.A. s-AS

## **PERU**

**OSCAR RAFAEL DE CORDOVA DIANDERAS** Ing.Agr., University of La Plata, Argentina, 1960. Plant Science—Genetics and Breeding. Appointed from Agrarian University. Place of study: U.S.A. s-AS

**CARLOS DELGADO OLIVERA** M.A., San Diego State College, 1956. Sociology. Appointed while studying at Cornell University. Place of study: U.S.A. s-HSS

**JUAN ARTURO FLOREZ MARTINEZ** Ing.Agr., Agrarian University, 1961. Plant Science—Agronomy. Appointed from Agrarian University. Place of study: U.S.A. s-AS

**MIGUEL HOLLE OSTENDORF** M.S., Iowa State University of Science and Technology, 1960. Plant Science—Horticulture. Appointed from Agrarian University. Place of study: U.S.A. s-AS

**AURELIO ORTIZ RODRIGUEZ** M.D., University of San Marcos, 1962. Pharmacology. Appointed from University of San Marcos. Place of study: Chile. F-MNS

**HUGO ARMANDO PACHECO** B.S., National School of Agriculture, 1950. Plant Sci-



ence—Genetics and Breeding. Appointed from University of San Antonio Abad. Place of study: U.S.A. s-AS

**FERMIN DE LA PUENTE CIUDAD** Ing.Agr., Agrarian University, 1960. Plant Science—Genetics and Breeding. Appointed from Agricultural Research and Extension Service. Place of study: U.S.A. s-AS

**TERESA SOUZA-PEIXOTO VILLA-GARCIA** Cert., National School of Library Science, 1959. Library Science. Appointed from University of San Marcos. Place of study: Costa Rica. s-AS

## PHILIPPINES

**ISABELO SUELO ALCORDO** M.S., University of Hawaii, 1963. Plant Science—Agronomy. Appointed from Mindanao Agricultural College. Place of study: U.S.A. s-AS

**OSCAR M. ALFONSO** M.A., University of the Philippines, Quezon City, 1955. History. Appointed from University of the Philippines. Place of study: U.S.A. s-HSS

**GLORIA S. ARGOSINO** M.A., University of the Philippines, Quezon City, 1960. Library Science. Appointed from University of the Philippines, College. Place of study: U.S.A. s-AS

**MARIA LOURDES L. ARVISU** M.A., Catholic University of America, 1954. Literature. Appointed from University of the Philippines, Quezon City. Place of study: U.S.A. s-HSS

**ARMANDO BALDONADO ASPIRAS** M.S., Technical University, Karlsruhe, Germany, 1964. Agricultural Chemistry. Appointed from University of the Philippines, College. Place of study: Germany. s-AS

**GIL G. DIVINAGRACIA** M.S., University of California, Davis, 1962. Plant Science—Pathology. Appointed from University of the Philippines, College. Place of study: U.S.A. s-AS

**VICENTE GONZALES DOSADO** M.S., University of the Philippines, Los Baños, 1958. Plant Science—Agronomy. Appointed from Mindanao Agricultural College. Place of study: U.S.A. s-AS

**NICANOR C. FERNANDEZ** M.S., University of Hawaii, 1963. Soil Science. Appointed from University of the Philippines, College. Place of study: U.S.A. s-AS

**VICTOR P. GENDRANO** B.S., University of the Philippines, College, 1957. Library Science. Appointed from University of the Philippines. Place of study: U.S.A. s-AS

- VICTOR DUNGCA GUILLERMO B.S.B.A., University of the Philippines, Quezon City, 1960. Hospital Administration. Appointed from University of the Philippines, Manila. Place of study: U.S.A. s-MNS
- ADELAIDA REYES KATIGBAK B.Mus., St. Scholastica's College, 1951. Music. Appointed from St. Scholastica's College. Places of study: U.S.A. and Europe. s-HSS
- THELMA B. KINTANAR M.A., Northwestern University, 1953. Literature. Appointed from University of the Philippines, Quezon City. Place of study: U.S.A. s-HSS
- REYNALDO M. LANTIN M.S., University of the Philippines, College, 1964. Engineering. Appointed from University of the Philippines. Place of study: U.S.A. s-AS
- EVELYN-THELMA LORENZANA MANDAC B.Mus., University of the Philippines, Quezon City, 1963. Music. Appointed from University of the Philippines. Place of study: U.S.A. s-HSS
- AMELIA MANGAY-MAGLACAS M.P.H., University of Minnesota, 1959. Public Health. Appointed from University of the Philippines, Manila. Place of study: U.S.A. F-MNS
- AMADOR CRUZ MURIEL B.S., University of the Philippines, Quezon City, 1959. Physics. Appointed from University of the Philippines. Place of study: U.S.A. s-MNS
- ROMEO A. OBORDO M.S., University of the Philippines, College, 1964. Plant Science-Agronomy. Appointed from University of the Philippines. Place of study: U.S.A. s-AS
- RODULFO P. PACUMBABA B.S.A., University of the Philippines, College, 1958. Plant Science-Pathology. Appointed from Bureau of Plant Industry, Manila. Place of study: U.S.A. s-AS
- EDUARDO AGUSTIN PADLAN M.S., University of the Philippines, Quezon City, 1964. Medical Biophysics. Appointed from University of the Philippines. Place of study: U.S.A. s-MNS
- BENEDICTO A. PARKER M.S., Texas A & M University, 1961. Animal Science-Genetics and Breeding. Appointed from University of the Philippines, College. Place of study: U.S.A. s-AS
- AGUSTIN N. FORDESIMO M.S., Cornell University, 1958. Plant Science-Pathology. Appointed from University of the Philippines, Los Baños. Place of study: U.S.A. s-AS

WILHELMINA Q. RAMAS M.A., Northwestern University, 1955. Literature. Appointed from University of the Philippines, Quezon City. Place of study: U.S.A.  
S-HSS

CELSO REYES ROQUE B.S., University of the Philippines, Quezon City, 1964. Physics. Appointed from University of the Philippines. Place of study: U.S.A.  
S-MNS

LORETTA MAKASAR SICAT M.A., University of the Philippines, Quezon City, 1959. Political Science. Appointed from University of the Philippines. Place of study: U.S.A. S-HSS

VICENTE S. VERZOSA, JR. M.D., University of the Philippines, Manila, 1955. Gross Anatomy. Appointed from University of the Philippines. Place of study: U.S.A.  
F-MNS

JOSE GARCIA VILLA B.A., University of New Mexico, 1933. Literature. Appointed from New York City. Place of study: U.S.A. F-HSS

## POLAND

ANNA BULANDA Dipl., School of Nursing, Warsaw, 1958. Nursing Education. Appointed from American Research Hospital for Children in Poland. Place of study: U.S.A. S-MNS

KRZYSTYNA MARIA KOZIEL Dipl., University School for Nurses and Midwives, Cracow, 1960. Nursing Service. Appointed from American Research Hospital for Children in Poland. Place of study: U.S.A. S-MNS

MARIA LENARTOWICZ Dipl., University School for Nurses and Midwives, Cracow, 1953. Nursing Education. Appointed from American Research Hospital for Children in Poland. Place of study: U.S.A. S-MNS

TERESA ANIELA PTACZEK Dipl., University School for Nurses and Midwives, Cracow, 1960. Nursing Service. Appointed from American Research Hospital for Children in Poland. Place of study: U.S.A. S-MNS

KRZYSTYNA ZAKRZOWIECKA SLAWIKOWSKA Dipl., University School for Nurses and Midwives, Cracow, 1961. Nursing Service. Appointed from American Research Hospital for Children in Poland. Place of study: U.S.A. S-MNS

HELENA SZYMANSKA Dipl., University School for Nurses and Midwives, Cracow, 1954. Nursing Service. Appointed from American Research Hospital for Children in Poland. Place of study: U.S.A. S-MNS

## RHODESIA

MUTUMBA MAINGA B.A., University College of Rhodesia and Nyasaland, 1963. History. Appointed from University College of Rhodesia and Nyasaland. Place of study: England. s-HSS

SYDNEY WALTER NELSON B.S., University of Natal, South Africa, 1960. Plant Science—Genetics and Breeding. Appointed from Ministry of Agriculture. Place of study: U.S.A. s-AS

## SUDAN

HASSAN EL TAYEB EL HAG M.Sc., University of Newcastle-upon-Tyne, England, 1964. Engineering. Appointed from University of Khartoum. Place of study: U.S.A. s-AS

ADLAN A. EL HARDALLO B.A., Victoria University of Manchester, England, 1964. Political Science. Appointed from University of Khartoum. Place of study: U.S.A. s-HSS

IBRAHIM MOHAMMED EL SALAHI B.A., University of London, England, 1957. Visual Arts. Appointed from Khartoum Technical Institute. Place of study: U.S.A. F-HSS

## TANZANIA

HATIMALI MOHAMMEDALI EBRAHIMJI AMIJI B.A., Makerere University College, Kampala, Uganda, 1964. History. Appointed while studying at Makerere University College. Place of study: U.S.A. s-HSS

## THAILAND

BANJERD BOONSUE M.S., Cornell University, 1960. Plant Science—Agronomy. Appointed from Kasetsart University. Place of study: U.S.A. s-AS

PIYA GIATGONG M.Sc., Madras University, India, 1961. Plant Science—Pathology. Appointed from Ministry of Agriculture. Place of study: U.S.A. s-AS

BOONSOM MEKSONGSEE M.S., Cornell University, 1956. Entomology. Appointed from Department of Agriculture. Place of study: U.S.A. s-AS

LOLITA A. MEKSONGSEE M.S., Cornell University, 1959. Animal Science. Appointed from Kasetsart University. Place of study: U.S.A. s-AS

**SRICHAROEN MIGASENA** D.T.M. and H., Bangkok School of Tropical Medicine, 1961. Internal Medicine. Appointed from University of Medical Sciences. Place of study: U.S.A. F-MNS

**AKIN RABIBHADANA** B.A., University of Oxford, England, 1957. Anthropology. Appointed from Thammasat University. Place of study: U.S.A. s-HSS

**KACHORN SATUPUNT** B.A., Thammasat University, 1959. Economics. Appointed from Chulalongkorn University. Place of study: U.S.A. s-HSS

**CHUJIT SOMBATPANIT** B.S., Kasetsart University, 1960. Plant Science—Physiology. Appointed from Royal Irrigation Department. Place of study: U.S.A. s-AS

**DARUNA SOMBOONEKUN** M.A., Ohio State University, 1961. Library Science. Appointed from Kasetsart University. Place of study: U.S.A. s-AS

**PHIENVIT TANTIBHEDHYANGKUL** M.D., Chulalongkorn University, 1959. Nutrition and Metabolic Disease. Appointed from Children's Hospital, Bangkok. Place of study: U.S.A. F-MNS

**SOMCHAI THAMNOONRAGSA** B.S., Kasetsart University, 1952. Plant Science—Agronomy. Appointed from Ministry of Agriculture. Place of study: U.S.A. s-AS

## **TURKEY**

**KORKUT BORATAV** Ph.D., University of Ankara, 1964. Economics. Appointed from University of Ankara. Place of study: Great Britain. F-HSS

**CETIN OZHAN ULUATAM** Ph.D., University of Ankara, 1964. Economics. Appointed from University of Ankara. Place of study: U.S.A. F-HSS

## **UGANDA**

**ANTHONY G. G. GINGYERA-PINYCWA** B.A., Makerere University College, 1962. Political Science. Appointed from Makerere University College. Place of study: U.S.A. s-HSS

**SALOME MANYANGENDA** B.A., Seattle University, 1964. Library Science. Appointed while studying at Seattle University. Place of study: U.S.A. s-AS

**FRANCIS IGNATIUS OJOW** B.S., Makerere University College, 1963. Economics. Appointed from Makerere University College. Place of study: U.S.A. s-HSS

**CHARLES MORRIS SEKINTU** Technical Certificate (British Museum Association),

University of London, England, 1960. Visual Arts—Museology. Appointed from Uganda Museum. Place of study: U.S.A. s—HSS

RAVINDER KUMAR SOOD B.S., Makerere University College, 1964. Solar Physics. Appointed from Makerere University College. Place of study: England. s—MNS

## UNITED ARAB REPUBLIC

HAMMUDAH ABDAL-ATI M.A., University of Al-Azhar, 1959. Sociology. Appointed from University of Al-Azhar. Place of study: U.S.A. s—HSS

## UNITED KINGDOM

MALCOLM ANDERSON D.Phil., University of Oxford, 1961. Political Science. Appointed from Victoria University of Manchester. Place of study: France. F—HSS

JAMES SYLVESTER CUMMINS Ph.D., University of London, 1956. History. Appointed from University of London. Places of study: U.S.A., Mexico, Asia. F—HSS

JAMES LORNE FORD M.A., University of Liverpool, 1962. Economics. Appointed from Victoria University of Manchester. Place of study: U.S.A. F—HSS

WILLIAM BLOKE MODISANE African History. Places of study: East Africa, Germany, England. F—HSS

## URUGUAY

SOLEDAD SANCHEZ PUNALES R.N., University of the Republic, 1954. Nursing Education. Appointed from University of the Republic. Place of study: U.S.A. s—MNS

## **FINANCIAL STATEMENTS • 1964**

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## FINANCIAL SUMMARY FOR 1964

By the end of its fifty-first year, The Rockefeller Foundation had paid out \$768.7 million and had commitments for future payments of an additional \$67.3 million. New commitments during 1964 were \$40.4 million, as compared with \$27.3 million of income on investments; the balance was covered by charging \$11.3 million to uncommitted Principal Fund and by unexpended balances of prior year appropriations which were lapsed in the amount of \$1.8 million.

Distribution of 1964 appropriations among the five areas of major interest to the Foundation was as follows:

Conquest of Hunger	\$7.0 million
Population	2.8 million
University Development	5.9 million
Equal Opportunity	5.7 million
Cultural Development	1.5 million

An additional \$13.8 million was appropriated for other projects in related areas of interest including fellowships and grants in aid, making a total of \$36.7 million for program commitments to which has been added an amount of \$3.7 million for indirect program and administrative costs anticipated for the calendar year 1965.

Payments during the year on current and prior year appropriations totaled \$32.6 million.

The market value of investments at December 31, 1964, was \$859.8 million.

The Foundation continued the diversification of its investments by exchanging with the Ford Foundation 86,022 shares of Standard Oil Company (New Jersey) capital stock for 140,846 shares of Ford Motor Company common stock; and by exchanging with the Louis W. and Maude Hill Family Foundation 13,867 shares of Standard Oil Company (New Jersey) capital stock for 20,000 shares of Minnesota Mining & Manufacturing Company common stock. Diversification was further implemented by the reinvestment in common stocks of funds derived from the proceeds of sales and redemptions of securities together with withdrawals from interest-bearing cash deposits.

The financial statements, and the opinion of Haskins & Sells, independent public accountants, are presented in the following pages.



# ACCOUNTANTS' OPINION

HASKINS & SELLS

CERTIFIED PUBLIC ACCOUNTANTS

TWO BROADWAY  
NEW YORK 10004

February 19, 1965

Board of Trustees,  
The Rockefeller Foundation,  
111 West 50th Street,  
New York.

Dear Sirs:

We have examined the balance sheet of The Rockefeller Foundation, including the schedule of marketable securities, as of December 31, 1964 and the related statement of income and appropriations, statement of principal fund, summary of appropriations and payments, and summary of transactions in marketable securities for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements and schedule present fairly the financial position of the Foundation at December 31, 1964 and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours truly,

*Haskins & Sells.*

BALANCE SHEET • DECEMBER 31, 1964

**A S S E T S**

**INVESTMENTS:**

Marketable securities—at cost or market value at date of gift or receipt (quoted market value, \$846,816,409)	\$238,417,406
Interest-bearing cash deposits	12,963,017
	<hr/>
	251,380,423
 CASH ON HAND AND ON DEPOSIT	 1,143,944
 ADVANCES UNDER APPROPRIATIONS TO BE ACCOUNTED FOR, ACCOUNTS RECEIVABLE AND DEFERRED CHARGES	  780,075
 PROPERTY—at nominal or depreciated amount	 234,534
 TOTAL	 <hr/> <hr/> \$253,538,976

**F U N D S   A N D   O B L I G A T I O N S**

PRINCIPAL FUND	\$185,849,416
UNPAID APPROPRIATIONS	67,313,549
ACCOUNTS PAYABLE	141,477
PROPERTY FUND	234,534
 TOTAL	 <hr/> <hr/> \$253,538,976

# STATEMENT OF INCOME AND APPROPRIATIONS

FOR THE YEAR ENDED DECEMBER 31, 1964

**INCOME:**

Income on investments:

Dividends	\$ 25,129,849
Interest on bonds	1,736,075
Interest on cash deposits	361,828

27,227,752

Refunds of appropriations paid in prior years

48,818

27,276,570

**APPROPRIATIONS:**

During the year	\$40,402,429	
Less unexpended balances of appropriations lapsed	1,806,601	38,595,828

**EXCESS OF APPROPRIATIONS OVER INCOME FOR  
THE YEAR CHARGED TO PRINCIPAL FUND**

\$ 11,319,258

## STATEMENT OF PRINCIPAL FUND

FOR THE YEAR ENDED DECEMBER 31, 1964

**BALANCE, JANUARY 1, 1964** \$170,867,559

**ADD:**

Excess of proceeds from sales of securities over ledger amount	17,827,677
Excess of market value of 140,846 shares of Ford Motor Company common stock received over the ledger amount of 86,022 shares of Standard Oil Company (New Jersey) capital stock exchanged therefor	7,061,075
Excess of market value of 20,000 shares of Minnesota Mining & Manufacturing Company common stock received over the ledger amount of 13,867 shares of Standard Oil Company (New Jersey) capital stock exchanged therefor	1,131,511
Restoration to cost basis of certain securities previously written down	260,847
Contributions received	20,005

197,168,674

**DEDUCT: Excess of appropriations over income for the year**

11,319,258

**BALANCE, DECEMBER 31, 1964**

\$185,849,416

# SUMMARY OF APPROPRIATIONS AND PAYMENTS

FOR THE YEAR ENDED DECEMBER 31, 1964

UNPAID APPROPRIATIONS, JANUARY 1, 1964		\$ 61,985,285
<b>APPROPRIATIONS:</b>		
During the year	\$40,402,429	
Less unexpended balances of appropriations lapsed	1,808,601	38,595,828
		99,981,113
<b>PAYMENTS DURING THE YEAR</b>		<b>32,617,564</b>
		<b>\$ 67,313,549</b>

## SUMMARY OF TRANSACTIONS IN MARKETABLE SECURITIES

FOR THE YEAR ENDED DECEMBER 31, 1964

Ledger Amount of Securities, January 1, 1964		\$207,896,503
Purchased	\$67,793,345	
Otherwise Acquired	9,410,661	
Restoration to Cost Basis of Certain Securities Previously Written Down	260,847	
Transfer Taxes and Expenses—Incurred for securities exchanged	11,149	77,476,002
		285,372,505
Sold	38,280,502	
Redeemed at Maturity	7,444,237	
Otherwise Disposed of	1,025,094	
Ledger Amount Reduced	192,981	
Amortization of Bond Premiums	12,285	46,955,099
		\$238,417,406
<b>Ledger Amount of Securities, December 31, 1964</b>		<b>\$238,417,406</b>

**SUMMARY OF TRANSACTIONS IN  
MARKETABLE SECURITIES *continued***

**FOR THE YEAR ENDED DECEMBER 31, 1964**

<b>PURCHASED:</b>		<b>LEDGER AMOUNT</b>
\$22,000,000	United States of America Treasury Bills	\$ 21,799,007
30,000	shares American Home Products Corporation	1,943,280
3,713	" American Telephone & Telegraph Company (74,260 rights exercised)	371,319
20,000	" Continental Insurance Company	1,150,248
59,300	" Eastman Kodak Company	7,790,263
30,000	" Firestone Tire & Rubber Company	1,284,393
112,000	" General Electric Company	9,116,971
3,500	" General Motors Corporation	274,484
20,000	" Great American Insurance Company	1,265,863
22,865	" Hanna Mining Company	2,051,785
13,700	" Hooker Chemical Company	551,609
8,501	" International Business Machines Corporation	4,115,114
300	" International Paper Company	9,900
48,900	" Minnesota Mining & Manufacturing Company	3,161,655
25,000	" National Cash Register Company	1,821,986
30,000	" National Steel Corporation	1,558,143
20,300	" Owens-Corning Fiberglas Corporation	1,357,240
500	" Philips Gloeilampenfabrieken	21,913
25,000	" Richardson-Merrell Incorporated	1,211,366
49,700	" Scott Paper Company	1,815,233
35,000	" United States Steel Corporation	1,975,402
20,000	" Upjohn Company	1,142,406
15,000	" Western Bancorporation	632,853
30,000	" Westinghouse Electric Corporation	1,045,280
9,900	" Weyerhaeuser Company	326,232
		<u>\$ 67,793,345</u>

**SUMMARY OF TRANSACTIONS IN  
MARKETABLE SECURITIES *continued***

**FOR THE YEAR ENDED DECEMBER 31, 1964**

<b>OTHERWISE ACQUIRED:</b>	<b>LEDGER AMOUNT</b>	
3,856	shares American Electric Power Company, Inc. received as a stock dividend on 128,536 shares owned of record 12/9/63	—
33,000	" American Smelting & Refining Company received in a stock split on 33,000 shares owned of record 5/8/64	—
77,963	" American Telephone & Telegraph Company received in a stock split on 77,963 shares owned of record 5/28/64	—
8,181	" Cities Service Company Common received in conversion for 9,000 shares of Cities Service Co. \$2.25 Cumulative Convertible Preference	\$ 513,880
8,375	" First National Bank of Chicago received as a stock dividend on 50,250 shares owned of record 12/31/63	—
140,846	" Ford Motor Company received in exchange for 86,022 shares of Standard Oil Company (New Jersey). Recorded at market price of shares received	7,500,050
6,666	" General Motors Corporation received as a stock distribution on 20,000 shares Christiana Securities Company owned of record 11/26/63. These shares were recorded on an allocated basis with respect to the relative market values of the two stocks on the ex-distribution date, and a corresponding reduction was made in the ledger amount of Christiana Securities Company stock	192,981
28,000	" Hanna Mining Company received in a stock split on 14,000 shares owned of record 5/5/64	—
3,262	" International Business Machines Corporation received in a stock split on 13,050 shares owned of record 5/5/64	—
20,000	" Minnesota Mining & Manufacturing Company received in exchange for 13,867 shares of Standard Oil Company (New Jersey). Recorded at market price of shares received	1,203,750
707	" Monsanto Company received as a stock dividend on 35,353 shares owned of record 11/2/64	—
16,800	" Peoples Gas Light & Coke Company received in a stock split on 67,200 shares owned of record 9/28/64	—
1,155	" Philips Gloeilampenfabrieken received as a stock dividend on 23,100 shares owned of record 4/29/64	—

**SUMMARY OF TRANSACTIONS IN  
MARKETABLE SECURITIES *continued*  
FOR THE YEAR ENDED DECEMBER 31, 1964**

OTHERWISE ACQUIRED — <i>concl'd</i>	LEDGER AMOUNT
11,025 shares Standard Oil Company of California received as a stock dividend on 220,500 shares owned of record 5/8/64	—
1,000,000 " Standard Oil Company (Indiana) received in a stock split on 1,000,000 shares owned of record 9/15/64	—
25,000 " Travelers Insurance Company received in a stock split on 25,000 shares owned of record 3/9/64	—
50,000 " Travelers Insurance Company received as a stock dividend on 50,000 shares owned of record 3/9/64	—
	<u>\$ 9,410,661</u>

SOLD:	PROCEEDS	LEDGER AMOUNT
\$12,500,000 United States of America Treasury Bills	\$ 12,368,298*	\$ 12,368,298
11,200,000 United States of America 2½% Treasury Bonds due June 15, 1962-67	10,762,437	11,058,763
2,000,000 United States of America 3½% Treasury Notes due November 15, 1965	1,988,750	2,000,000
7,800,000 United States of America 4% Treasury Notes due August 15, 1966	7,811,102	7,821,293
3,000,000 United States of America 3¾% Treasury Notes due February 15, 1967	2,980,484	2,989,299
8,181 shares Cities Service Company Common	532,015	513,880
7,200 " Cities Service Company \$2.25 Cumulative Convertible Preference	424,134	411,104
825 " First National Bank of Chicago	48,932	16,463
220,000 " Standard Oil Company (New Jersey)	19,191,960	1,101,363
Fractional shares	67	39
	<u>\$ 56,108,179</u>	<u>\$ 38,280,502</u>

**REDEEMED AT MATURITY:**

\$ 7,500,000 United States of America Treasury Bills	\$ 7,444,237*	\$ 7,444,237
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\* Proceeds of U. S. A. Treasury Bills sold or redeemed were augmented by the sum of \$122,542 which was appropriately credited to income.

**SUMMARY OF TRANSACTIONS IN  
MARKETABLE SECURITIES *concluded***

**FOR THE YEAR ENDED DECEMBER 31, 1964**

<b>OTHERWISE DISPOSED OF:</b>		<b>PROCEEDS</b>	<b>LEDGER AMOUNT</b>
9,000	shares Cities Service Company \$2.25 Cumulative Convertible Preference surrendered in conversion for 8,181 shares Cities Service Company Common	\$ 513,880	\$ 513,880
86,022	" Standard Oil Company (New Jersey) exchanged for 140,846 shares Ford Motor Company	7,500,050	438,975
13,867	" Standard Oil Company (New Jersey) exchanged for 20,000 shares Minnesota Mining & Manufacturing Company	1,203,750	72,239
		\$ 9,217,680	\$ 1,025,094
<b>LEDGER AMOUNT REDUCED:</b>			
20,000	shares Christiana Securities Company by allocation of a portion of the cost thereof to 6,666 shares of General Motors Corporation	\$ 192,981	\$ 192,981



**SCHEDULE OF MARKETABLE SECURITIES**

**DECEMBER 31, 1964**

<b>BONDS</b>	<b>PAR</b>	<b>LEDGER AMOUNT</b>	<b>MARKET VALUE</b>
<i>United States Government Obligations:</i>			
<i>Treasury Bills:</i>			
January 28, 1965	\$ 1,000,000	\$ 988,067	\$ 988,067
March 4, 1965	5,000,000	4,951,200	4,951,200
July 31, 1965	2,000,000	2,000,000	2,000,000
 <i>Treasury Bonds:</i>			
3 $\frac{7}{8}$ %-May 15, 1968	1,000,000	995,000	993,437
2 $\frac{1}{2}$ %-December 15, 1964-69	12,000,000	11,556,562	11,268,750
 <i>Treasury Notes:</i>			
3 $\frac{5}{8}$ %-February 15, 1967	12,000,000	11,957,198	11,906,250
	<u>33,000,000</u>	<u>32,448,027</u>	<u>32,107,704</u>
 <i>Other Bonds:</i>			
American Telephone & Telegraph Co. 3 $\frac{7}{8}$ % 34 yr. Deb. July 1, 1990	2,000,000	2,042,117	1,832,500
Dallas Power & Light Co. 4 $\frac{1}{4}$ % 1st Mtge. December 1, 1986	500,000	503,112	486,625
General Motors Acceptance Corp. 5% 20 yr. Deb. August 15, 1977	1,000,000	975,000	1,041,250
Illinois Bell Telephone Co. 4 $\frac{1}{4}$ % 1st Mtge. Series "E" March 1, 1988	1,000,000	1,010,614	972,500
International Bank for Reconstruction and Development 3 $\frac{1}{2}$ % October 15, 1971	1,000,000	980,000	953,750
Michigan Bell Telephone Co. 4 $\frac{3}{8}$ % 35 yr. Deb. December 1, 1991	1,000,000	1,017,495	985,000
The Mountain States Telephone & Telegraph Co. 4 $\frac{3}{8}$ % 31 yr. Deb. February 1, 1988	1,000,000	1,009,684	987,500
Pacific Gas & Electric Co. 4 $\frac{1}{2}$ % 1st and Ref. Mtge. "AA" December 1, 1986	1,000,000	1,011,009	1,003,750
Public Service Electric & Gas Co. 4 $\frac{3}{8}$ % 1st and Ref. Mtge. November 1, 1986	1,000,000	1,009,235	987,500
	<u>9,500,000</u>	<u>9,558,266</u>	<u>9,250,375</u>
	<u>\$ 42,500,000</u>	<u>\$ 42,006,293</u>	<u>\$ 41,358,079</u>

**SCHEDULE OF MARKETABLE SECURITIES *continued***

**DECEMBER 31, 1964**

<b>STOCKS</b>	<b>SHARES</b>	<b>LEDGER AMOUNT</b>	<b>MARKET VALUE</b>
American Electric Power Company, Inc.	132,392	\$ 1,074,601	\$ 5,874,895
American Home Products Corporation	30,000	1,943,280	1,968,750
American Smelting & Refining Company	66,000	1,894,808	3,275,250
American Telephone & Telegraph Company	155,926	3,549,940	10,641,949
Christiana Securities Company	30,000	3,729,063	8,550,000
Consolidated Natural Gas Company	300,000	3,603,294	21,562,500
Consumers Power Company	34,700	1,651,630	1,878,138
Continental Insurance Company	48,875	2,064,961	2,963,047
Continental Oil Company	300,000	2,015,418	22,875,000
Corning Glass Works	30,000	3,704,042	6,030,000
Crown Zellerbach Corporation	24,750	591,168	1,398,375
Dow Chemical Company	51,448	2,527,734	3,935,772
Eastman Kodak Company	59,300	7,790,263	8,213,050
Firestone Tire & Rubber Company	30,000	1,284,393	1,342,500
First National Bank of Chicago	57,800	1,153,433	3,424,650
Ford Motor Company	492,891	22,948,266	26,800,948
General Electric Company	184,000	11,176,137	17,158,000
General Motors Corporation	58,332	3,143,952	5,709,244
Goodrich, B. F. Company	50,000	1,839,893	2,887,500
Great American Insurance Company	20,000	1,265,863	1,885,000
Hanna Mining Company	52,875	2,298,350	2,921,344
Hartford Fire Insurance Company	102,000	2,178,528	7,114,500
Hooker Chemical Corporation	70,860	2,681,249	2,657,250
Inland Steel Company	30,000	749,508	1,320,000
Insurance Company of North America	50,000	2,411,908	4,612,500
International Business Machines Corporation	24,813	4,786,660	10,160,924
International Nickel Company of Canada, Ltd.	110,000	2,767,560	9,240,000
International Paper Company	236,702	2,370,246	7,751,990
Kennecott Copper Corporation	30,000	1,756,180	2,760,000
Marathon Oil Company	212,241	3,708,384	13,583,424
McGraw-Edison Company	41,600	1,635,791	2,121,600
Minnesota Mining & Manufacturing Company	80,000	5,084,448	4,430,000
Monsanto Company	36,060	792,466	3,092,150
National Cash Register Company	25,000	1,821,986	1,846,875
National Steel Corporation	80,000	3,541,514	4,210,000
National Union Fire Insurance Company	32,000	1,374,434	1,264,000

**SCHEDULE OF MARKETABLE SECURITIES *concluded***

**DECEMBER 31, 1964**

<b>STOCKS — <i>concl'd</i></b>	<b>SHARES</b>	<b>LEDGER AMOUNT</b>	<b>MARKET VALUE</b>
Owens-Corning Fiberglas Corporation	20,800	\$ 1,357,240	\$ 1,070,825
Peoples Gas Light & Coke Company	84,000	1,057,373	3,906,000
Phelps Dodge Corporation	45,000	1,186,128	3,166,875
Philips Gloeilampenfabrieken	24,755	942,688	1,052,088
Pittsburgh Plate Glass Company	40,800	2,503,536	2,805,000
Richardson-Merrell Incorporated	25,000	1,211,366	1,446,875
Scott Paper Company	93,000	3,004,712	3,150,375
Security First National Bank (Los Angeles)	23,332	1,655,686	1,907,391
Socony Mobil Oil Company, Inc.	300,000	7,778,152	27,525,000
Southern Company, (The)	26,000	1,016,586	1,706,250
Standard Oil Company of California	231,525	1,893,562	16,988,147
Standard Oil Company (Indiana)	2,000,000	14,184,718	85,000,000
Standard Oil Company (New Jersey)	4,299,749	22,255,527	387,514,879
Travelers Insurance Company	100,000	856,385	4,012,500
Union Carbide Corporation	30,000	2,973,773	3,810,000
Union Tank Car Company	100,000	593,187	5,062,500
United States Steel Corporation	55,000	2,797,695	2,805,000
Upjohn Company	50,000	2,529,555	2,600,000
Western Bancorporation	60,000	2,057,273	2,355,000
Westinghouse Electric Corporation	90,000	3,038,703	3,825,000
Weyerhaeuser Company	150,000	2,605,917	6,787,500
		<u>\$196,411,113</u>	<u>\$805,458,330</u>

**S U M M A R Y**

<b>Bonds:</b>	<b>LEDGER AMOUNT</b>	<b>MARKET VALUE</b>
U.S. Government Obligations	\$ 32,448,027	\$ 32,107,704
Other Bonds	9,558,266	9,250,375
	<u>42,006,293</u>	<u>41,358,079</u>
<b>Stocks</b>	196,411,113	805,458,330
	<u>\$238,417,406</u>	<u>\$846,816,409</u>

PAYMENTS • 1964

Approximately 80 per cent of all 1964 payments were made in the United States, including expenditures for equipment and supplies purchased for shipment to foreign grantees.

Payments marked (— ) represent refunds on current grants.

INTERNATIONAL

Cooperative programs of The Rockefeller Foundation

*For field and local expenses, see "Cooperative Program" in Brazil, Chile, Colombia, India, Mexico, Nigeria, Philippines, Sudan, Thailand, Trinidad, Uganda, and California and New York.*

Conquest of Hunger — field staff in the Agricultural Sciences	\$1,577,222
University Development — Program development and field staff in the Humanities and Social Sciences	254,674
Virus Research Program — field staff	402,452
Program in medical sciences — field staff in the Medical and Natural Sciences	414,915
Staff on special assignment	160,936
Distribution of documentary film on rice	4,821
Purchase and distribution of <i>International Bibliography of Rice Research</i>	(—814)

Organization of American States

*Inter-American Institute of Agricultural Sciences, Costa Rica*

Institutional grant related to fellowships	500
Secretariat for the Latin American Association of Plant Science	5,472
Training of librarians	(—482)

United Nations

Training and Research Institute, New York	450,000
<i>Food and Agriculture Organization, Italy</i>	
Training awards for Near Eastern wheat specialists	30,696
Veterinary and animal husbandry education for Latin America	15,000

ALGERIA

Fellowships and scholarships for individuals	3,578
--	-------

PAYMENTS • 1964

<b>ARGENTINA</b>	
<b>Institute of Biochemical Investigations</b>	
Development	\$ 9,000
<b>Institute of Biology and Experimental Medicine</b>	
Research equipment	5,160
<b>National Council of Scientific and Technical Research</b>	
Research in Argentine universities	80,000
<b>National Institute of Agricultural Technology</b>	
Department of Special Training	2,714
<b>National University of Córdoba</b>	
Faculty of Medical Sciences	944
<b>Torcuato di Tella Institute</b>	
Latin American Center for Advanced Music Composition	56,147
<b>University of Buenos Aires</b>	
Department of History	6,668
Faculties of Medical Sciences, Pharmacology and Chemistry, and Exact and Natural Sciences	45,754
Faculty of Architecture and Urbanism	8,655
<b>University of Cuyo</b>	
Faculty of Medical Sciences	46,790
<b>Other support</b>	
Fellowship, scholarship, and travel grants to individuals	109,287
Shipping of equipment purchased under grants	5,397
<b>AUSTRALIA</b>	
<b>Australian National University</b>	
Institutional grant related to fellowships	1,000
Research in constitutional democracy	2,000
John Curtin School of Medical Research	497
<b>University of Adelaide</b>	
Research on the British parliamentary system	665
<b>University of Melbourne</b>	
Research in international relations	6,739
Research in human genetics	2,000

PAYMENTS • 1964

A U S T R A L I A (cont'd)

University of New England	
Institutional grant related to fellowships	\$ 1,000
Research in constitutional democracy	3,000
University of Sydney	
Research on electron microscopy	17,760
Victoria State Forest Commission	
Research equipment	3,808
Other support	
Fellowship, scholarship, and travel grants to individuals	15,685
Shipping of equipment purchased under grants	300

A U S T R I A

Emergency aid in the arts and sciences for Hungarian refugees	
Graz Technical University	5,148
Mining and Metallurgical College, Leoben	470
State University of Agriculture and Forestry, Vienna	1,212
University of Commerce, Vienna	1,436
University of Graz	9,110
University of Innsbruck	8,563
University of Technology, Vienna	20,553
University of Vienna	16,263
Veterinary University, Vienna	1,668
University of Technology, Vienna	
Institutional grant related to fellowships	1,000
Net payments to Austrian institutions, less than \$100	(-11)

B A S U T O L A N D

Travel grants to individuals	312
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B E L G I U M

Catholic University of Louvain	
Institutional grant related to fellowships	1,000

Other support

Fellowship, scholarship, and travel grants to individuals	15,647
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**BOLIVIA**

**University of San Simón**

Faculty of Agronomy \$ 2,190

**Other support**

Fellowships and scholarships for individuals 865

Shipping of equipment purchased under grants 256

**BRAZIL**

**Brazilian Institute of Science, Education, and Culture**

Science development program 4,263

**Brazilian Society of Genetics**

Genetics research 1,740

**Campaign for the Improvement of Higher  
Education Personnel**

Support of research 22,576

**Faculty of Philosophy, Sciences, and Letters of  
Rio Claro**

Research in zoology and genetics 320

**Getulio Vargas Foundation**

Advanced training for Brazilian economists 9,495

**Institute of Agronomy of the State of São Paulo**

Development 37,745

**Ministry of Agriculture**

Division of Agricultural and Food Technology 352

**Paulista School of Medicine**

General development 20,710

**Rural University of the State of Minas Gerais**

School of Veterinary Medicine 240

**São Paulo State Secretariat of Agriculture**

Animal Nutrition Research Center 475

Expenses of the Ninth International Grasslands  
Congress 18,690

Department of Zoology 375

**University of Bahia**

Faculty of Law 4,250

Laboratory of Human Genetics 2,558

PAYMENTS • 1964

BRAZIL (*cont'd*)

University of Minas Gerais	
Faculty of Medicine	\$ 78,885
Institute of General Biology	12,351
University of Paraná	
Catalogue of neotropical bees	5,305
Department of Zoology	406
Laboratory of Genetics	366
Laboratory of Human Genetics	7,443
University of Rio Grande do Sul	
Department of General Biology, Curitiba	3,439
Faculty of Economic Sciences	4,001
Faculty of Philosophy	202
Institute of Physics	572
Laboratory of Animal Genetics	3,268
Laboratory of Human Genetics	4,787
Laboratory of Molecular Genetics	3,422
Research and teaching in the Faculty of Medicine and research in genetics in the Institute of Natural Sciences	11,903
School of Nursing	1,011
University of São Paulo	
Institutional grant related to fellowships	2,000
Department of Biology	11,897
Department of Physiology	1,224
Faculty of Medicine, Ribeirão Preto	11,070
Laboratory for Cell Physiology	1,244
Laboratory of Animal Genetics	3,907
Laboratory of Electron Microscopy	797
Laboratory of Human Genetics	1,751
Laboratory of Medical Genetics	8,522
School of Agriculture, Piracicaba	16,332
Net payments to Brazilian institutions, less than \$100	258
Cooperative program	
Belém Virus Laboratory	33,251
Other support	
Fellowship, scholarship, and travel grants to individuals	166,350
Shipping of equipment purchased under grants	27,952



PAYMENTS • 1964

<b>CAMEROUN</b>	
Ministry of Foreign Affairs	
International relations library	\$ 1,608
 <b>CANADA</b>	
McGill University	
Institutional grant related to fellowships	2,500
Research in international relations	13,135
University of Toronto	
School of Nursing	1,000
Net payments to Canadian institutions, less than \$100	(—10)
Other support	
Fellowship, scholarship, and travel grants to individuals	4,834
 <b>CEYLON</b>	
University of Ceylon	
Development of language teaching	7,804
Other support	
Fellowship, scholarship, and travel grants to individuals	5,981
Shipping of equipment purchased under grants	169
 <b>CHILE</b>	
Catholic University of Chile	
Economic Research Center	6,000
Faculty of Agronomy	28,797
Institutional grant for a visiting professorship at the University of Valle, Colombia	10,790
Laboratory of Physiology	6,371
Neurological Center	17,270
School of Sociology	4,800
University of Chile	
Center of Graduate Studies on American History	7,232
Faculty of Agronomy	5,310
Faculty of Chemistry and Pharmacy	3,310
Faculty of Medicine Research Committee	30,495
Faculty of Science	13,094

<b>University of Chile (<i>cont'd</i>)</b>	
Graduate School of Economics	\$ 31,616
Virus Research Laboratory	4,225
<b>University of Concepción</b>	
Faculty of Agronomy	50,468
<b>Cooperative programs</b>	
Chilean Agricultural Program	177,437
Development of experiment stations	113,908
<b>Other support</b>	
Fellowship, scholarship, and travel grants to individuals	224,996
Shipping of equipment purchased under grants	59,523
 <b>COLOMBIA</b>	
<b>Colombian Association of Faculties of Medicine</b>	
General development	5,000
Seminar on medical pedagogy	4,500
<b>National University of Colombia</b>	
Faculty of Veterinary Medicine	42,849
<b>University of the Andes</b>	
Center for Studies in Economics	18,340
School of Sciences	161,100
<b>University of Antioquia</b>	
Department of Biology	1,092
Department of Surgery	5,000
Inter-American School of Library Science	48,284
Program for teaching of English	107
Seminar in library science	20,000
<b>University of Caldas</b>	
Faculty of Medicine	9,341
<b>University of Valle</b>	
Institutional grant related to fellowships	500
General support	198,000
Administrative services	17,794
Basic College program	36,041
Chemical research program	2,622

PAYMENTS • 1964

Faculty of Agriculture	\$ 42,973
Faculty of Architecture	1,460
Faculty of Economics and Social Sciences	19,775
Faculty of Engineering	6,613
Faculty of Medicine	433,705
Linguistic Center	6,902
Research in reproductive physiology	10,060
Research in rural and tropical diseases and clinical physiology	7,073
School of Nursing	25,547
Special equipment	8,898
Visiting appointment in biology	11,885
<b>Xavier University</b>	
Department of Biochemistry	14,744
Net payments to Colombian institutions, less than \$100	120
<b>Cooperative programs</b>	
Colombian Agricultural Program	222,698
Field Office, Cali	49,818
International Center for Corn and Wheat Improvement, activities in Colombia	1,854
University Development Program Center, Cali	1,942
Virus Research Program	21,472
<b>Other support</b>	
Fellowship, scholarship, and travel grants to individuals	493,956
Shipping of equipment purchased under grants	69,012
 <b>CONGO</b>	
<b>Lovanium University</b>	
Institute of Economic and Social Research	6,250
Medical School and School of Agriculture	131,570
 <b>COSTA RICA</b>	
Fellowship, scholarship, and travel grants to individuals	51,747
 <b>DENMARK</b>	
<b>Carlsberg Foundation</b>	
Research in biochemistry	1,488

PAYMENTS • 1964

DENMARK (cont'd)

Other support

Fellowship, scholarship, and travel grants to individuals	\$ 17,625
Shipping of equipment purchased under grants	93

DOMINICAN REPUBLIC

Travel grants to individuals	5,553
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ECUADOR

Central University

Faculty of Agronomy and Veterinary Medicine	4,785
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National Agricultural Research Institute

Training and laboratory equipment	11,748
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Other support

Fellowships and scholarships for individuals	35,687
Shipping of equipment purchased under grants	1,847

EL SALVADOR

University of El Salvador

Departments of Preventive Medicine and Pathology	11,824
School of Medicine	4,679

Other support

Fellowship, scholarship, and travel grants to individuals	2,628
Shipping of equipment purchased under grants	669

ETHIOPIA

Haile Sellassie I University

Central Agricultural Experiment Station at Debre Zeit	15,000
College of Agriculture, Alemaya	10,000

Net payments to Ethiopian institutions, less than \$100	13
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Other support

Fellowships and scholarships for individuals	44,091
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FIJI

Travel grants to individuals	840
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**FINLAND**

University of Helsinki	
Research in virology	\$ 10,895
Other support	
Fellowships and scholarships for individuals	2,186

**FRANCE**

Institute of Applied Economics	
Research on industrialization in certain African countries	16,000
National Center of Scientific Research	
Research in physiological genetics	10,150
National Foundation of Political Sciences	
Center for the Study of International Relations	12,600
National Office of French Universities and Schools	
Tibetan studies	1,800
University of Aix-Marseilles	
Institute of Biological Chemistry, Paris	3,467
University of Paris	
Institutional grant related to fellowships	2,000
Other support	
Fellowships and scholarships for individuals	21,922
Shipping of equipment purchased under grants	1,145

**GERMANY**

Free University of Berlin	
Research on doctrines of Marxism-Leninism	(-1,569)
German Institute for Economic Research	
Research on East German economic problems	12,587
Max Planck Institute, Munich	
Institutional grant related to fellowships	1,000
Philipps University, Marburg	
Research in constitutional democracy	5,000
University of Bonn	
Institutional grant related to fellowships	1,000

PAYMENTS • 1964

GERMANY (*cont'd*)

University of Hamburg	
Institutional grant related to fellowships	\$ 1,000
University of Kiel	
Institutional grant related to fellowships	1,000
University of Munich	
Studies in animal behavior	1,244
Other support	
Fellowship, scholarship, and travel grants to individuals	6,818

GHANA

Kwame Nkrumah University of Science and Technology	
School of Agriculture	8,189
University of Ghana	
Institute of African Studies	10,000
Other support	
Fellowship, scholarship, and travel grants to individuals	18,458
Shipping of equipment purchased under grants	156

GUATEMALA

National Institute of Agriculture and Animal Husbandry	
Development	17,848
University of San Carlos	
Faculties of Veterinary Medicine and Agronomy and Institute of Animal Husbandry	46,226
Medical library	7,500
Other support	
Fellowship, scholarship, and travel grants to individuals	21,078
Shipping of equipment purchased under grants	6,281

HAITI

Fellowships and scholarships for individuals	4,774
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PAYMENTS • 1964

<b>HONDURAS</b>	
National University of Honduras	
Medical library	\$ 8,817
Pan American Agricultural School	
Development	13,976
Other support	
Fellowships and scholarships for individuals	13,540
Shipping of equipment purchased under grants	377
<b>INDIA</b>	
Agricultural College and Research Institute, Coimbatore	
Research equipment	31,560
All India Institute of Medical Sciences	
Teaching and research equipment	102,664
Banaras Hindu University	
Department of Zoology	5,649
Calcutta School of Tropical Medicine	
Research in virology	886
Central Potato Research Institute	
Research equipment	4,320
Christian Medical College, Vellore	
Medical record department	2,614
Research equipment	25,000
Government General Hospital, Madras	
Research in neuropathology	141
India International Centre	
General support	23,787
Indian Agricultural Research Institute	
Library	23,647
Indian Association for the Advancement of Medical Education	
General support	10,000
Indian Council of Medical Research	
Postgraduate medical fellowships	(-2,325)

PAYMENTS • 1964

INDIA (*cont'd*)

Indian Institute of Public Administration	
Research on Gopal Krishna Gokhale	\$ 10,000
Indian Institute of Science	
Research on amino acids and protein nutrition	14,683
Indian School of International Studies	
Research materials on major areas of Asia	48,300
Staff training program	18,077
Medical College, Pondicherry	
Research in virology	2,015
Medical College, Trivandrum	
School of Nursing	9,398
Ministry of Agriculture of West Bengal	
Research Institute, Haringhata	706
National Museum, New Delhi	
Training and foreign study for Indian staff	1,868
Panjab University	
Department of History	373
Punjab Agricultural University	
Agricultural experiment station facilities	19,256
Architectural plans for Home Science College	7,500
Seth Gordhandas Sunderdas Medical College	
Department of Medicine and Surgery	229
Sri Avinashilingam Home Science College	
Library	772
University of Calcutta	
Department of Zoology	2,951
University of Delhi	
Comparative studies of Western and Indian music	18,989
Library training	8,632
University of Lucknow	
King George's Medical College	46,735
University of Madras	
Research equipment	1,123



PAYMENTS • 1964

University of Rajasthan	
Department of Zoology	\$ 956
Uttar Pradesh Agricultural University	
Agricultural experiment station facilities	43,494
Net payments to Indian institutions, less than \$100	60
Cooperative programs	
Field Office, Ballabgarh	11,169
Field Office, New Delhi	97,072
Indian Agricultural Program	321,036
International Center for Corn and Wheat Improvement, activities in India	26,678
Virus Research Centre, Poona	86,875
Other support	
Fellowship, scholarship, and travel grants to individuals	279,244
Shipping of equipment purchased under grants	65,090
INDONESIA	
Gadjah Mada University	
Faculty of Agriculture	13,591
University of Indonesia	
Faculty of Veterinary Science, Bogor	181
Medical Faculty	4,081
Other support	
Fellowship, scholarship, and travel grants to individuals	19,304
Shipping of equipment purchased under grants	1,594
IRAN	
Nemazee School of Nursing	
Teaching equipment	499
Other support	
Fellowships and scholarships for individuals	6,627
Shipping of equipment purchased under grants	49
IRAQ	
Al-Hikma University	
Preparation of descriptive catalogue of the Serkis collection	3,000

PAYMENTS • 1964

**IRELAND**

**University of Dublin**

Institutional grant related to fellowships \$ 1,000

**Other support**

Travel grants to individuals 848

**ISRAEL**

**Hebrew University of Jerusalem**

Research in international relations 5,860

Research in political theory 1,600

Research on ancient agricultural systems in the Negev 64,050

Research on arboviruses 4,685

**Other support**

Travel grants to individuals 889

Shipping of equipment purchased under grants 200

**ITALY**

**University of Milan**

Research in genetics 6,215

**University of Palermo**

Research in embryology and physiology 11,949

**University of Parma**

Research in human genetics 6,750

**University of Pavia**

Research in international relations 3,500

**University of Pisa**

Research in neurophysiology 14,392

**University of Rome**

Institutional grant related to fellowships 2,000

Research in biochemistry 16,911

Research in genetics 19,500

Research on the structure of biologically active compounds 5,393

Study of the role of social science in modern Italian society 2,400

**University of Turin**

Institute of Political Science 5,250

Research in human genetics 5,507

PAYMENTS • 1964

Villa Serbelloni

International Conference and Study Center of  
The Rockefeller Foundation \$ 183,143

Other support

Travel grants to individuals 502  
Shipping of equipment purchased under grants 1,724

IVORY COAST

Ministry of Foreign Affairs

International relations library 3,072

Other support

Shipping of equipment purchased under grants 24

JAMAICA

University of the West Indies, Mona

Faculty of Medicine 91,039  
Visiting fellowship 12,000

Other support

Fellowships and scholarships for individuals 558  
Shipping of equipment purchased under grants 14

JAPAN

Economic Planning Agency

Research in international relations 2,441

International Christian University

Study of effects of higher education on student values 9,589

Keio University

Equipment for research in medical sciences 20,647  
Expenses of visiting specialists 174  
Japan Library School 15,203  
School of Medicine 14,809

Kyoto University

Institutional grant related to fellowships 500  
Department of Medical Chemistry 628  
Faculty of Agriculture 6,280  
Faculty of Medicine 15,000  
Pathological Institute 1,386

PAYMENTS • 1964

JAPAN (cont'd)

<b>Kyushu University</b>	
Research in electrophysiology	\$ 4,167
Research in virology	14,998
<b>Nagoya University</b>	
Research in agricultural biochemistry	863
Research in bioluminescence	9,998
<b>National Institute of Agricultural Sciences</b>	
Consultation in cereal virology at the International Rice Research Institute, Philippines	10,000
<b>National Institute of Genetics</b>	
Research in human genetics	5,735
Research on genetics of cultivated rice	50,627
<b>National Institute of Health</b>	
Research in virology	9,481
<b>Okayama University</b>	
Research in cellular chemistry	10,662
<b>Osaka City University</b>	
Research in neurophysiology	7,744
<b>Osaka University</b>	
Institute for Protein Research	6,345
Research on hepatocerebral disease	2,184
<b>Tohoku University</b>	
Faculty of Agriculture	12,959
<b>Tokyo University of Agriculture and Technology</b>	
Research on rice blast disease	400
<b>University of Tokyo</b>	
Institutional grant related to fellowships	1,000
Institute for Infectious Disease	480
Institute of International Relations	21,410
Library improvement	202,724
<b>Yokohama City University</b>	
School of Medicine	266
<b>Net payments to Japanese institutions, less than \$100</b>	<b>8</b>

PAYMENTS • 1964

Other support

Fellowship, scholarship, and travel grants to individuals	\$ 133,250
Shipping of equipment purchased under grants	1,695

JORDAN

Ministry of Foreign Affairs

International relations library	100
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KENYA

Egerton College

Animal husbandry and forestry	20,525
Scholarship program for East African students	15,000

Ministry of Agriculture and Animal Husbandry

Veterinary Research Laboratory	(-142)
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Ministry of Health

Rural health demonstration and training center	7,937
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Office of the Prime Minister

International relations library	4,217
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University College Nairobi

*(See University of East Africa, page 214)*

Other support

Fellowship, scholarship, and travel grants to individuals	37,055
Shipping of equipment purchased under grants	832

KOREA

Ministry of Foreign Affairs

International relations library	14,114
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Other support

Fellowships and scholarships for individuals	694
Shipping of equipment purchased under grants	240

LEBANON

American University of Beirut

Arab Studies Program	(-325)
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PAYMENTS • 1964

<b>American University of Beirut (<i>cont'd</i>)</b>	
Department of Medicine	\$ 8,500
School of Arts and Sciences	789,539
<b>Other support</b>	
Fellowships and scholarships for individuals	4,703
<b>LIBERIA</b>	
<b>Cuttington College and Divinity School</b>	
Development program in agriculture, chemistry, and education	13,187
Program in economics and business administration	10,250
<b>University of Liberia</b>	
College of Agriculture	15,000
<b>Other support</b>	
Travel grants to individuals	2,333
<b>MALAWI</b>	
Fellowships and scholarships for individuals	2,643
<b>MALAYSIA</b>	
<b>University of Singapore</b>	
Research in virus diseases	5,629
Visiting lectureship in political science	2,000
<b>Other support</b>	
Fellowships and scholarships for individuals	10,598
<b>MEXICO</b>	
<b>American British Cowdray Hospital</b>	
Nurses training and physiotherapy programs	1,000
<b>Children's Hospital, Mexico City</b>	
Medical education and research	26,000
<b>Colegio de México</b>	
Institutional grant related to fellowships	1,500
Center for International Studies	11,061
Center of Philological Studies	18,352
Graduate program in history	22,102
Graduate program in humanities and social sciences	58,103
Research in contemporary Mexican history	17,962

<b>Entomological Society of Mexico</b>	
Representation at meeting of Entomological Society of America	\$ 500
<b>Mexican Center of Writers</b>	
General support	18,000
<b>National Institute of Agricultural Research</b>	
Expenses of Potato Association of America meeting	5,288
Headquarters building and regional research centers	2,401
<b>National Institute of Anthropology and History</b>	
Department of Prehistory	3,260
<b>National Institute of Nutrition</b>	
Hospital for Nutritional Diseases	28,868
Research in biochemistry and nutrition	15,230
<b>National School of Agriculture</b>	
Graduate School	80,000
<b>National University of Mexico</b>	
Comparative literature	908
Graduate training in chemistry and biochemistry	41,433
Institute of Chemistry	902
Medical research	1,528
Research and teaching in biochemistry	11,909
Study of theatre architecture	1,800
<b>Technological Institute and School of Advanced Studies of Monterrey</b>	
School of Agriculture	12,114
<b>University of Guadalajara</b>	
Faculty of Medicine	31,500
<b>University of Guanajuato</b>	
Department of Microbiology	9,889
<b>University of Nuevo León</b>	
Center of Economics and Social Research	31,480
<b>University of San Luis Potosí</b>	
School of Medicine	5,448

MEXICO (cont'd)

University of the State of Veracruz

Faculty of Humanities	\$ 872
Faculty of Veterinary Medicine and Animal Husbandry	4,500

Cooperative programs

International Center for Corn and Wheat Improvement	119,574
Mexican Agricultural Program	260,532
State of Mexico extension program	1,884

Other support

Fellowship, scholarship, and travel grants to individuals	288,954
Shipping of equipment purchased under grants	9,843

MOROCCO

Fellowships and scholarships for individuals	6,395
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NATIONAL REPUBLIC OF CHINA, TAIWAN

Fellowships and scholarships for individuals	9,407
Shipping of equipment purchased under grants	301

NETHERLANDS

Hague Academy of International Law

Lecture series on international law	4,000
Research program	30,922

International Institute for Social History

Research on doctrines of Marxism-Leninism	(-440)
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Netherlands Economic Institute

Economic research and analysis for educational planning	8,549
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State Agricultural University

Training program for rice specialists	4,810
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Other support

Fellowship, scholarship, and travel grants to individuals	9,719
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NEW ZEALAND

University of Auckland

Research on plant products of New Zealand \$ 5,000

University of Otago

Survey of arboviruses in the Pacific area (—4,918)

Other support

Shipping of equipment purchased under grants 165

NICARAGUA

Fellowships and scholarships for individuals 2,853

NIGERIA

Ahmadu Bello University

Cereal Research Program 65,563

University of Ibadan

Institutional grant related to fellowships 500

Data Processing Centre 1,860

Department of Arabic and Islamic Studies 32,822

Department of Chemical Pathology 37,400

Department of Economics 12,897

Department of Preventive and Social Medicine 4,879

Department of Psychiatry, Neurology, and  
Neurosurgery 12,318

Faculties of Agriculture and Veterinary Science 121,197

Faculty of Economics and Social Studies 9,300

Faculty of Medicine 4,776

Housing for visiting staff 24,106

Institute of African Studies 54,063

Institute of Child Health 51,546

Library acquisitions in the social sciences 2,014

Medical librarianship 4,200

Nutrition Center 74,500

Research in virology 58,153

Research on the economics of education and the  
relationship of education to economic development  
in Nigeria 6,500

Rural health training and teaching center at Igbo-Ora 30,051

Study of university administrative procedures 11,134

Training in pathology, chemical pathology, and  
preventive and social medicine 13,141

PAYMENTS • 1964

<b>University of Ibadan (<i>cont'd</i>)</b>	
Training of teachers of French and English	\$ 5,654
University Press	8,392
<b>University of Ife</b>	
Faculty of Agronomy	2,598
Net payments to Nigerian institutions, less than \$100	(-17)
<b>Cooperative program</b>	
University Development Program Center, Ibadan	19,136
<b>Other support</b>	
Fellowship, scholarship, and travel grants to individuals	204,000
Shipping of equipment purchased under grants	6,522
 <b>NORWAY</b>	
<b>Christian Michelsen Institute</b>	
Research on interrelations between the economies of developing and Western industrialized countries	30,100
<b>University of Oslo</b>	
Anatomical Institute	13,500
<b>Other support</b>	
Fellowship, scholarship, and travel grants to individuals	7,129
 <b>PAKISTAN</b>	
<b>Central Institute of Islamic Research</b>	
Research program	10,633
<b>University of Dacca</b>	
Research in biochemistry	6,143
<b>Other support</b>	
Fellowships and scholarships for individuals	30,851
Shipping of equipment purchased under grants	429
 <b>PANAMA</b>	
Fellowships and scholarships for individuals	3,984
Shipping of equipment purchased under grants	20

PERU

Agrarian University

Cooperative program with the Agricultural Research and Extension Service	\$ 920
Postgraduate instruction and research	18,647

Association of Friends of the Municipal Public Library of Callao

General support	7,000
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Catholic University of Peru

Conference on nuclear spectroscopy and solid state physics	3,800
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Peruvian University of Medical and Biological Sciences

Faculty of Medicine	37,557
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University of San Marcos

Faculty of Medicine	34,338
Faculty of Veterinary Medicine	78,565

Other support

Fellowship, scholarship, and travel grants to individuals	133,306
Shipping of equipment purchased under grants	14,385

PHILIPPINES

University of the Philippines

College of Home Economics	769
General development	115,215
Institute of Economic Development and Research	11,299
International Center and faculty housing, Diliman campus	36,500
Scholarship program in agriculture for undergraduates from Southeast Asia	25,000
Statistical Training Center	(-1,896)

Cooperative programs

Rice research bibliography	10,000
International Rice Research Institute	625,000
University Development Program Center, Quezon City	14,343

Other support

Fellowship, scholarship, and travel grants to individuals	284,165
Shipping of equipment purchased under grants	32,208

PAYMENTS • 1964

POLAND

Central Library, Warsaw

Equipment and books \$ 120

College of Agriculture, Cracow

Research equipment 22,285

Research in virology 1,561

Copernicus University

Department of Neurophysiology and Comparative  
Physiology 3,515

Institute of Soil Science and Plant Cultivation, Pulawy

Department of Agricultural Microbiology 922

Polish Academy of Sciences

Institute of Plant Genetics, Poznan 141

Nenki Institute of Experimental Biology, Warsaw 2,724

Pharmacological Institute, Cracow 7,290

Veterinary Institute of Pulawy

Purchase of fluorimeter 7,282

Research in virology 25,975

Net payments to Polish institutions, less than \$100 138

Other support

Fellowship, scholarship, and travel grants to  
individuals 79,616

Shipping of equipment purchased under grants 2,494

RHODESIA

Rhodesian Academy of Music

Program in African music 4,195

University College of Rhodesia and Nyasaland

Department of Agriculture 5,200

Department of Zoology 25,154

Research on government and politics 1,272

Study of the epidemiology of bilharziasis 10,000

University College library 7,018

Other support

Fellowship, scholarship, and travel grants to  
individuals 10,635

Shipping of equipment purchased under grants 573

**SENEGAL**

**Ministry of Foreign Affairs**

International relations library \$ 395

**University of Dakar**

Faculty of Letters and Human Sciences 2,202

Training of teachers of French and English 6,765

**Other support**

Shipping of equipment purchased under grants 10

**SOUTH AFRICA**

**South African Institute for Medical Research**

Arthropod-borne Virus Research Unit 1,277

**University of Natal**

Medical School 10,000

**Other support**

Fellowships and scholarships for individuals 476

Shipping of equipment purchased under grants 200

**SPAIN**

**University of Madrid**

Department of Physiology 9,554

**Other support**

Shipping of equipment purchased under grants 318

**SUDAN**

**Institute of Public Administration**

In-service training in research methodology 3,455

**University of Khartoum**

Department of European Languages 3,246

Faculties of Agriculture, Science, and Veterinary Science 13,538

Faculty of Arts 8,610

General development 147,445

**Cooperative program**

University Development Program Center, Khartoum 4,018

**Other support**

Fellowship, scholarship, and travel grants to individuals 39,705

Shipping of equipment purchased under grants 9,793

**SWEDEN**

**Karolinska Institute**

Medical Nobel Institute \$ 2,710

**University of Lund**

Institute of Genetics 5,500

**University of Uppsala**

Institute of Statistics 4,800

**Other support**

Travel grants to individuals 2,639

Shipping of equipment purchased under grants 50

**SWITZERLAND**

**Graduate Institute of International Studies**

Administration of teaching and research programs 10,000

Research and training in international relations 57,292

**International Press Institute**

Program for the Asian press 79,116

**Net payments to Swiss institutions, less than \$100**

6

**Other support**

Travel grants to individuals 1,606

**SYRIA**

Fellowships and scholarships for individuals 4,560

**TANZANIA**

**Ministry of Agriculture**

International relations library 1,388

Research Division 5,000

**Ministry of Health and Labour**

Medical training center for rural physicians 17,447

**University College**

*(See University of East Africa, page 214)*

**Other support**

Fellowship, scholarship, and travel grants to individuals 3,750

Shipping of equipment purchased under grants 34

<b>THAILAND</b>	
Chulalongkorn University	
General development	\$ 4,833
Kasetsart University	
General development	63,596
Thai cooperative corn improvement project	2,646
Thammasat University	
Faculty of Liberal Arts	526
University of Medical Sciences	
Faculty of Public Health	(-246)
General development	30,340
School of Tropical Medicine	9,997
Net payments to Thai institutions, less than \$100	(-35)
Cooperative program	
University Development Program Center, Bangkok	17,490
Other support	
Fellowship, scholarship, and travel grants to individuals	126,834
Shipping of equipment purchased under grants	9,340
<b>TRINIDAD</b>	
University of the West Indies, St. Augustine	
Faculty of Agriculture	25,286
Training award in microbiology	1,648
Trinidad Regional Virus Laboratory, Port-of-Spain	103,276
Cooperative program	
Trinidad Regional Virus Laboratory	9,739
Other support	
Fellowship, scholarship, and travel grants to individuals	4,220
Shipping of equipment purchased under grants	6,175
<b>TUNISIA</b>	
Travel grants to individuals	2,005
<b>TURKEY</b>	
Istanbul University	
Institute of Economic History	526

PAYMENTS • 1964

**TURKEY (cont'd)**

**University of Ankara**

Center for Soviet Studies	\$ 6,078
Department of Child Health	13,522
Faculty of Political Science	2,267
Institute of Turkish and Islamic Art	1,164
School of Nursing and Health Sciences	5,088

**Other support**

Fellowship, scholarship, and travel grants to individuals	46,806
Shipping of equipment purchased under grants	989

**UGANDA**

**East African Common Services Organization**

East African Agriculture and Forestry Research Organization	7,010
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**Uganda National Cultural Centre Trust**

Program in design training at National Theatre	7,010
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**University of East Africa**

Committee on Special Lectureships	1,132
Consultation on the development of the university	21,757
Program of Africanization of the academic staff in the constituent colleges	87,516
Training of library binders at the University of Khartoum, Sudan	18,232

*University College Nairobi, Kenya*

Comparative study of veterinary institutions in underdeveloped areas	11,579
Development of basic sciences	54,925
Research and teaching in economics	10,610
Strengthening of non-professional staff	4,668
Training award in economics	864
Veterinary Faculty	5,000

*University College, Dar es Salaam, Tanzania*

Administrative development	6,151
Faculty of Arts	10,000
Library development	36,650
Temporary lectureship in African literature	2,044



PAYMENTS • 1964

*Makerere University College, Kampala, Uganda*

Institutional grant related to fellowships	\$ 2,500
Books in economics	322
Construction of staff housing	42,000
Faculty of Agriculture	(-3,674)
Faculty training awards	3,821
Graduate program in African studies	26,040
Kasangati research and training center in rural health	107,475
Library development	8,874
Research and training in African music	8,650
Research lectureship in the politics of resource allocation	10,975
Research on bilharziasis	11,500
Research on economic development in East Africa	24,998
Teaching and research in agriculture	193,271
Teaching appointment in international relations	6,480
Cooperative program	
University Development Program Center, Entebbe	17,820
Other support	
Fellowship, scholarship, and travel grants to individuals	35,585
Shipping of equipment purchased under grants	585

UNITED ARAB REPUBLIC

Fellowships and scholarships for individuals	9,458
Shipping of equipment purchased under grants	23

UNITED KINGDOM

*England*

Grassland Research Institute	
Institutional grant related to fellowships	1,000
Institute for Strategic Studies	
Research on strategic problems in non-Atlantic areas	25,000
Medical Research Council	
Fellowships in the medical sciences	26,377
Research on the X-ray crystallography of proteins	1,831

UNITED KINGDOM (*cont'd*)

Royal Institute of International Affairs

Research on Islamic society and the West \$ 3,500

University of Cambridge

Institutional grant related to fellowships 5,000

Research in international relations 3,920

History of the English criminal law 1,682

Research in animal behavior 29,200

Research in applied economics 13,158

Research on the biochemistry of reproduction 6,118

Research in sensory physiology of invertebrate animals 2,799

Research and writing on world history 4,200

Support for a journal of African history 2,379

Visiting fellows and scientists 25,000

University of Durham

Research and training in Middle Eastern economic  
and cultural geography 10,201

University of Liverpool

Institutional grant related to fellowships 500

University of London

Institutional grant related to fellowships 10,000

Research in international relations 10,273

Bilharziasis research 23,345

Fellowships in advanced legal studies 6,978

Publication of selected writings of Jeremy Bentham 2,248

Research in biophysics 44,588

Research in mammalian genetics 15,213

Research on medieval background of the common law 11,180

Research on the proteins and biological value of  
tropical foodstuffs 163

Tibetan studies 3,400

Training of scholars from the Far East, Middle East,  
and Africa in economics and political science 2,854

Victoria University of Manchester

Department of Organic Chemistry (-1,192)

Program with the British Association for American  
Studies 4,414

Research in legal and political philosophy 644

PAYMENTS • 1964

<b>University of Oxford</b>	
Institutional grant related to fellowships	\$ 2,000
Research in international relations	4,616
European studies	14,167
Research and training in social sciences	31,123
Research in biochemistry	9,044
Research in animal population	750
<b>University of Sussex</b>	
Research in international relations	8,960
Net payments to English institutions, less than \$100	(-28)
<b>Rockefeller Foundation</b>	
Expenses of closing London office	4,309
<b>Other support</b>	
Fellowship, scholarship, and travel grants to individuals	26,264
Shipping of equipment purchased under grants	244
<i>Scotland</i>	
<b>Commonwealth Bureau of Animal Nutrition</b>	
Classification plan for information on nutrition	15,000
<b>University of Edinburgh</b>	
Institutional grant related to fellowships	500
 <b>UNITED STATES</b>	
<i>Alaska</i>	
<b>University of Alaska</b>	
Alaska Agricultural Experiment Station	14,000
<i>Arizona</i>	
<b>University of Arizona</b>	
Institutional grant related to fellowships	500
Professional training of Indian artists	9,795
<i>Arkansas</i>	
Travel grants to individuals	1,715
<i>California</i>	
<b>California Institute of Technology</b>	
Institutional grant related to fellowships	1,000
Study of High Commission territories	8,500

PAYMENTS • 1964

UNITED STATES (*cont'd*)

Humboldt State College

Research in international relations \$ 3,000

Occidental College

Student assistance program 26,325

Rand Corporation

Research in agricultural productivity in Rhodesia 15,000

Stanford University

Institutional grant related to fellowships 6,000

Research in constitutional democracy 7,850

Food Research Institute 11,718

Research in legal and political philosophy 5,000

Research in natural product chemistry 68,310

School of Medicine 188,594

Visiting lecturer from University of Ibadan, Nigeria 1,945

Visiting professorship at University of Valle, Colombia 11,600

University of California

*Berkeley*

Institutional grant related to fellowships 55,500

Comparative studies in Latin American demography 34,718

Cooperative research with Center of Economic  
Research, Athens, Greece 40,000

Evolution of legal system in mainland China (-156)

Research and teaching of political science in  
developing countries 48,607

*Los Angeles*

Department of Theatre Arts 10,000

Project for improvement of language teaching  
in the Philippines 107,358

*Riverside*

Department of Plant Pathology 1,320

University of Southern California

Training program for music critics 41,000

Cooperative program

Virus research program, Berkeley 28,411

Travel grants to individuals

20,569

PAYMENTS • 1964

<i>Canal Zone</i>	
Travel grants to individuals	\$ 720
<i>Colorado</i>	
Colorado State University	
Institutional grant related to fellowships	4,000
Research in international relations	5,500
University of Colorado	
Institutional grant related to fellowships	2,000
University of Denver	
Department of International Relations	12,200
University development assignments in Africa, Latin America, and Asia	500
Travel grants to individuals	2,792
<i>Connecticut</i>	
University of Connecticut	
Research in international relations	4,980
Yale University	
Institutional grant related to fellowships	11,000
Research in international relations	12,500
Development of plans for Rockefeller Foundation Virus Laboratory	10,000
Research and writing in the humanities by senior faculty members	58,300
Research in the history of the British Parliament	1,445
Research on American diplomacy at the Paris Peace Conference, 1918-1919	2,500
Research on international protection of human rights	10,000
School of Drama	4,800
Study of Japanese military administration of Indonesia	(-1,672)
To aid completion of the final volume of a history of Germany	600
To enable the author, Ralph Ellison, to work full time on a novel	14,000
Toward costs of a building for the Department of Epidemiology and Public Health and the Rockefeller Foundation Virus Laboratory	1,500,000
Visiting professor of law from the University of the Philippines	9,470

PAYMENTS • 1964

UNITED STATES (cont'd)

Yale University (cont'd)

Cowles Foundation, research in economics \$ 3,661

Yale University Press

Translation of Latin American books 45,000

*District of Columbia*

Agricultural Research Service, U.S.D.A.

Participation in genetics congress (-466)

American Institute of Biological Sciences

Development of new aspects of program 20,000

American Political Science Association

Seminars for political science teachers in Southern colleges 5,000

American University

Research in international relations 7,500

Research on process of foreign policy formation in selected countries (-1,800)

Association of State Universities and Land-Grant Colleges

Coordination of programs for rural development in foreign countries 19,541

Brookings Institution

Institutional grant related to fellowships 500

Role of universities in Latin American political development 8,326

Research programs in international relations and international economics 500,000

Catholic University of America

Institutional grant related to fellowships 1,000

Georgetown University

Institutional grant related to fellowships 1,000

George Washington University

Research in constitutional democracy 14,450

Bibliography on sorghum and millet, and bibliographical training 15,415

Rice research bibliography 894

Hospitality and Information Service

Program for assistance of foreign diplomats 3,000

PAYMENTS · 1964

Library of Congress	
Adviser to National Diet Library of Japan	\$ (-302)
National Academy of Sciences	
Pacific Science Board	(-1,000)
National Research Council	
Division of Biology and Agriculture	7,500
Genetics study in Japan	15,000
Office of Scientific Personnel	2,335
Overseas Education Fund of the League of Women Voters	
Training in citizenship education for women from Latin American countries	30,879
Rural Sociological Society	
To enable selected scholars to participate in the first world congress of rural sociology	2,436
Smithsonian Institution	
Field study of arbovirus transmission	2,366
Travel grants to individuals	2,741
<i>Florida</i>	
Central Florida Junior College	
To enable the librarian of the college to serve as consultant at Chulalongkorn University, Bangkok, Thailand	13,847
Florida State University	
Institute of Social Research	19,626
Visiting lectureship in economics at the University College of Rhodesia and Nyasaland	9,500
University of Florida	
Institutional grant related to fellowships	5,500
Research on the Caribbean area	59,898
University of Miami	
Institute of Marine Science	10,250
Travel grants to individuals	424
<i>Georgia</i>	
Atlanta University	
School of Library Service	134,350

PAYMENTS • 1964

UNITED STATES (*cont'd*)

Emory University

Student assistance program \$ 23,200

Georgia Institute of Technology

Institutional grant related to fellowships 1,000

Morehouse College

Study programs for promising high school students 75,000

Southern Regional Council

General expenses 50,000

Travel grants to individuals 42

*Hawaii*

University of Hawaii

Institutional grant related to fellowships 1,000

Institutional grant for agricultural students from  
selected tropical regions 5,541

Travel grants to individuals 2,500

*Illinois*

American Library Association

Graduate program in library service for the  
University of the Philippines 22,436

Office of International Relations 85,190

To enable leaders of Keio University, Japan, to  
observe library management and training (-1,386)

American Veterinary Medical Association Research Fund

Symposium on veterinary education 9,000

Association of American Medical Colleges

Division of International Medical Education 48,536

Fourth Latin American conference for foreign  
educators 10,000

Pan American Federation of Associations of  
Medical Schools 15,000

Fund for the International Conference of  
Agricultural Economists

Operating expenses of the International Association  
of Agricultural Economists 7,500

Institute of Food Technologists

International Oilseed Symposium (-3,335)



PAYMENTS • 1964

Northwestern University	
Institutional grant related to fellowships	\$ 1,000
Research in international relations	8,000
Southern Illinois University	
Institutional grant related to fellowships	1,000
Community development program in Free World	(-2,757)
University of Chicago	
Institutional grant related to fellowships	5,500
Center for the Study of American Foreign and Military Policy	13,500
Department of Anthropology	1,548
Department of Economics	17,500
Department of Geography	12,500
Department of Music	34,000
Editing of papers of James Madison	8,000
Institutional grant toward expenses of Argentine economists at National University of Cuyo, Argentina	5,000
Nuclear medicine	65,228
Population Research and Training Center	60,322
Problems in modernization in the Middle East and North Africa	16,000
Program of economic research	9,028
Research on traditional agriculture in the economy of a developing country	9,000
University of Illinois	
Institutional grant related to fellowships	9,500
Travel grants to individuals	2,063
<i>Indiana</i>	
Indiana University	
Institutional grant related to fellowships	2,000
Conference of International Union of Scientific Psychology	2,500
Purdue University	
Institutional grant related to fellowships	15,500
Institutional grant for visiting professor at the University of Valle, Colombia	1,900

PAYMENTS • 1964

UNITED STATES (*cont'd*)

University of Notre Dame

Cooperative research on plant virus diseases with  
Institute of Agronomy, Brazil \$ 14,400

Travel grants to individuals 4,858

*Iowa*

Iowa State University of Science and Technology

Institutional grant related to fellowships 11,500

Symposium on plant breeding 1,000

State University of Iowa

Research in international relations 8,550

Travel grants to individuals 718

*Kansas*

Kansas State University Endowment Association

Research on germ plasm in Mexican and Colombian  
corn banks 13,300

Kansas State University

Institutional grant related to fellowships 5,000

Travel grants to individuals 1,817

*Louisiana*

Dillard University

Prefreshman program 15,000

Louisiana State University

Institutional grant related to fellowships 1,000

Tulane University of Louisiana

Institutional grant related to fellowships 8,000

Development program between *Tulane Drama Review*  
and the American National Theatre and Academy 10,020

Epidemiological field study on mycology in Uganda 3,319

New Orleans Philharmonic Orchestra 3,000

Student assistance programs 28,500

Training program for foreign fellows in the basic  
natural and biological sciences 36,813

Travel grants to individuals 3,049

<i>Maine</i>	
Colby College	
Summer school of music for string players	\$ 7,000
<i>Maryland</i>	
Johns Hopkins University	
Institutional grant related to fellowships	3,500
Research in international relations	15,000
Comparative study of hospital obstetrical care	24,332
History of United States policy in the Middle East, 1917-1928	1,000
Training and research in the theory and practice of foreign policy	26,000
University of Maryland	
Institutional grant related to fellowships	1,500
Travel grants to individuals	1,286
<i>Massachusetts</i>	
Amherst College	
Institutional grant related to fellowships	2,000
Boston Symphony Orchestra	
Composer in residence project	13,000
Boston University	
Institutional grant related to fellowships	3,000
Cooperative research on medical care, with Queens College, Scotland, and Thayer Hospital, Maine	(-889)
Brandeis University	
Research in international relations	14,550
Educational Services Incorporated	
Experimental summer institute in mathematics at the University of Wisconsin and a similar institute in biology at the University of North Carolina	150,000
Harvard University	
Institutional grant related to fellowships	24,500
Center for International Affairs	26,681
Development of a Center for Population Studies	250,000
Exchange of hospital residents with the University of Ibadan, Nigeria	1,829
Graduate School of Public Administration	29,890

<b>Harvard University (<i>cont'd</i>)</b>	
Harvard Economic Research Project	\$ 56,820
Law School	14,040
Program in family medical care	17,883
Program of radiological health	5,055
Research on biology of the corn plant	16,675
Russian Research Center	(-307)
Seminar in Chinese law	15,000
Study of family planning in Santiago, Chile	14,000
<b>Mount Holyoke College</b>	
Student assistance program	25,000
<b>Massachusetts Institute of Technology</b>	
Institutional grant related to fellowships	5,500
Center for International Studies	(-1,494)
Collaborative research with visiting investigator from Czechoslovak Academy of Sciences	4,900
<b>Museum of Fine Arts</b>	
Research on Rayy textiles	(-1,300)
<b>New England Deaconess Hospital</b>	
Institutional grant related to fellowships	500
<b>Radcliffe College</b>	
Institutional grant related to fellowships	1,000
<b>Smith College</b>	
Research in international relations	7,700
<b>Tufts University</b>	
Institutional grant related to fellowships	2,000
<b>University of Massachusetts</b>	
Research on government support of arts in Britain	8,000
<b>Williams College</b>	
Study of professional democracy in India, the United States, and Great Britain	5,000
Travel grants to individuals	6,264
<b>Michigan</b>	
<b>Michigan State University</b>	
Institutional grant related to fellowships	13,500

PAYMENTS • 1964

Department of Agricultural Economics	\$ 8,250
Department of Food Science	8,000
Department of Political Science	(-8,979)
<b>University of Michigan</b>	
Institutional grant related to fellowships	7,000
Research in constitutional democracy	2,000
Institutional grant for visiting professor at the University of Ghana	15,000
International Center	3,224
Seminar on Islamic art and architecture	5,546
Study of voting behavior in Kerala, India	6,900
Survey Research Center	7,500
<b>Wayne State University</b>	
Institutional grant related to fellowships	13,000
Research in international relations	5,000
Cooperative program of the College of Nursing and the Schools of Nursing of Dillard University, Louisiana, and Tuskegee Institute, Alabama	8,500
Institutional grant for visiting professorship in economics at the University of Valle, Colombia	(-336)
<i>Minnesota</i>	
<b>Carleton College</b>	
Student assistance program	7,300
<b>St. Olaf College</b>	
Institutional grant for visiting professorship in philosophy at the University of the Philippines	24,443
<b>University of Minnesota</b>	
Institutional grant related to fellowships	18,500
Program of professional training for the theatre	31,500
To assist the College of Veterinary Medicine in a program at the National University of Colombia	15,000
<b>Walker Art Center</b>	
Program in performing arts	15,000
<b>Travel grants to individuals</b>	4,289
<i>Mississippi</i>	
<b>Mississippi State University</b>	
Institutional grant related to fellowships	500

UNITED STATES (*cont'd*)

*Missouri*

University of Missouri

Institutional grant related to fellowships \$ 4,000

University of Kansas City

History of Kansas City (-620)

Washington University

Institutional grant related to fellowships 2,500

Studies in urban design 7,500

Travel grants to individuals

1,781

*Montana*

Montana State College

Department of Plant and Soil Science 900

*Nebraska*

University of Nebraska

Institutional grant related to fellowships 10,500

Department of Agricultural Economics 4,672

Research in corn genetics 10,143

Toward publication of *Wheat Abstracts* 8,000

*New Hampshire*

Dartmouth College

Institutional grant related to fellowships 1,000

Student assistance program 50,000

*New Jersey*

Princeton University

Institutional grant related to fellowships 1,000

Research in constitutional democracy 9,900

Research in international relations 10,500

Center of International Studies 30,000

Musical research with aid of computers 15,000

Preparation of critical biography of  
Sir Mark Aurel Stein 8,000

Relationships between economic development and  
birth rates 15,750

Research and training related to university  
development in Latin America and Africa 37,375

PAYMENTS • 1964

School of Public and International Affairs	\$ 64,000
Student assistance program	59,560
Study of international monetary systems	15,000
Study of the office and powers of the Chief Justice of the United States	9,147
Rutgers, the State University	
Institutional grant related to fellowships	500
Institutional grant for writer in residence	8,500
Woodrow Wilson National Fellowship Foundation	
Teaching internship program	108,519
Travel grants to individuals	(-335)
<i>New Mexico</i>	
University of New Mexico	
Research on historical and contemporary role of the military in Latin America	2,949
Travel grants to individuals	500
<i>New York</i>	
Actors Studio	
Experimental work in Playwrights Unit and program in playwriting, acting, and directing	34,500
American Assembly	
27th American Assembly on courts	15,000
American Ballet School	
Institutional grant related to fellowships	500
American Universities Field Staff	
Research in international relations	(-10,000)
Asia Society	
Councils on selected countries of Asia	32,000
Brooklyn College of the City University of New York	
Institutional grant for visiting professorship in economics at the University of the Philippines	25,708
College talent search pilot project	38,750
Carnegie Endowment for International Peace	
Training program for Foreign Service officers	267,577

UNITED STATES (cont'd)

<b>City College of the City University of New York</b>	
Research in international relations	\$ 4,500
Institutional grant for visiting professorship in economics at the University of the Philippines	1,121
Research on the planning process in India	3,800
<b>Colgate University</b>	
Institutional grant for visiting professorship at the University of Valle, Colombia	4,362
<b>Columbia University</b>	
Institutional grant related to fellowships	8,500
Research in constitutional democracy	12,000
Research in international relations	13,351
American Press Institute	24,171
Department of Public Law and Government	133
Graduate School of Journalism	7,180
Graduate School of Library Service	1,500
Institute for Latin American Studies	7,000
Law School	20,000
Russian Institute	67,500
School of International Affairs	2,832
Services of special lecturer and research equipment for the Institute of Nutrition Sciences	23,000
<b>Community Funds</b>	
Commission on voluntary health and welfare agencies	(-6,566)
<b>Conservation Foundation</b>	
Studies of population, environment, and the utilization of natural resources	15,000
<b>Cornell University</b>	
Institutional grant related to fellowships	30,500
Research in international relations	16,805
Graduate School of Nutrition	18,194
Orientation course for foreign graduate students in agriculture	10,000
Orientation course for foreign medical fellows	25,000
Study of the development of the social sciences in Thailand	7,500
Training and research program on the Quechua language	7,996



<b>Council on Foreign Relations</b>	
Staff development	\$ 500,000
<b>Council on Religion and International Affairs</b>	
Seminars	5,000
<b>Dance Notation Bureau</b>	
Labanotation for recording the dance	3,500
<b>Franklin Book Programs</b>	
Library catalogue cards in Spanish	10,000
<b>Franklin Publications</b>	
English-Arabic dictionary	115,000
<b>Institute for Advanced Studies in the Theatre Arts</b>	
Program in world drama	8,000
<b>Institute of International Education</b>	
International student exchange and services	50,000
Seminar on agricultural education	25,000
Toward the costs of a new building	100,000
Training Tibetan students in the United States	(-112)
<b>Juilliard School of Music</b>	
Institutional grant related to fellowships	500
<b>Long Island Biological Association</b>	
Laboratory of Quantitative Biology	8,500
<b>National Health Council</b>	
Uniform accounting and reporting for health and welfare agencies	31,250
<b>National Information Bureau</b>	
General support	15,000
<b>National Urban League</b>	
Leadership development program	75,000
<b>New York Pro Musica Antiqua</b>	
Presentations of music composed before 1700	2,250
<b>New York Public Library</b>	
Journal of books published in Spanish America	19,000

UNITED STATES (cont'd)

New York University

Institutional grant related to fellowships	\$ 4,000
Department of Government	9,500
Division of General Education	1,500
Index for <i>Revista de Filología Española</i>	7,000
Industrial and public health aspects of radiation hazards	167,020
Institute of Fine Arts	63,118

Population Council

Cooperative program with the Johns Hopkins University School of Hygiene and Public Health	54,375
International conference on family planning	15,000
Technical Assistance Division	2,000,000

Protestant Episcopal Diocese of New York

American Place Theatre	13,025
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Research Foundation of the State of New York

Institutional grant related to fellowships	2,000
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Rockefeller Institute

Institutional grant related to fellowships	3,000
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Social Science Research Council

Fellowship program in legal and political philosophy	20,025
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Special Libraries Association

Special travel	500
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Theatre Incorporated

Training program for members of the Association of Producing Artists	4,250
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Tools for Freedom Foundation

Equipment distribution in Colombia	15,000
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Union Theological Seminary

Program of advanced religious studies	15,000
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United Health Foundations

General support	10,000
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University of Buffalo Foundation

Buffalo Philharmonic Orchestra	17,000
Establishment of a center of performing and creative arts	110,000
Medical school administration and instruction	150

<b>University of Rochester</b>	
Institutional grant related to fellowships	\$ 4,000
Research in constitutional democracy	10,000
<b>Vassar College</b>	
Department of Drama	4,175
<b>Yeshiva University</b>	
Institutional grant related to fellowships	500
Travel grants to individuals	23,194
<b>Cooperative program</b>	
New York Virus Laboratories	521,094
<b>Rockefeller Foundation</b>	
Special review and planning projects	114,262
Reserve account for retirement allowances	285,666
New York Office and supporting services	3,211,541
 <i>North Carolina</i>	
<b>Duke University</b>	
Institutional grant related to fellowships	3,000
Research in international relations	5,000
Conference on tropical forestry	7,500
School of Nursing	9,980
Student assistance program	20,500
Studies in forest hydrology	9,806
<b>Duke University Press</b>	
<i>Hispanic American Historical Review</i>	(-564)
<b>North Carolina Baptist Hospital</b>	
Institutional grant related to fellowships	500
<b>University of North Carolina</b>	
<i>Raleigh</i>	
Institutional grant related to fellowships	26,500
Department of Genetics	10,500
<i>Chapel Hill</i>	
Institutional grant related to fellowships	5,500
Institute for Research in Social Science	14,304
Institute of Statistics	6,768
Travel grants to individuals	2,900

UNITED STATES (*cont'd*)

*North Dakota*

North Dakota State University

Institutional grant related to fellowships \$ 5,000

*Ohio*

Antioch College

Student assistance program 20,000

Miami University

Research in constitutional democracy 10,875

Oberlin College

Research in international relations 12,345

Experimental summer school 50,000

Ohio Agricultural Experiment Station

Studies on verticillium wilt of tomato 2,760

Ohio State University

Institutional grant related to fellowships 3,000

Western Reserve University

Institutional grant related to fellowships 1,000

Schistosomiasis bibliography 13,000

Travel grants to individuals

1,974

*Oklahoma*

Oklahoma State University of Agriculture and Applied Science

Institutional grant related to fellowships 500

University of Oklahoma

Research on political behavior and its impact on democratic process 13,800

Travel grants to individuals

601

*Oregon*

Oregon State University

Institutional grant related to fellowships 4,500

Reed College

Student assistance program 16,000

<b>University of Oregon</b>	
Institutional grant related to fellowships	\$ 3,000
Research in constitutional democracy	10,000
Department of Geography	(-1,245)
Travel grants to individuals	9,068
<i>Pennsylvania</i>	
<b>American Law Institute</b>	
Model penal code	10,858
<b>Bryn Mawr College</b>	
Research in constitutional democracy	7,500
Institutional grant for visiting professorship in economics at the University of Ibadan, Nigeria	2,229
<b>Carnegie Institute of Technology</b>	
Professional theatre and university drama programs	(-3,830)
<b>Pennsylvania State University</b>	
Institutional grant related to fellowships	4,000
<b>Pittsburgh Playhouse School of the Theater</b>	
Vanguard classroom project	13,500
<b>Swarthmore College</b>	
Research in constitutional democracy	11,500
Student assistance program	30,000
<b>United States National Student Association</b>	
Latin American program	8,000
<b>University of Pennsylvania</b>	
Institutional grant related to fellowships	2,000
Studies in urban design	7,500
Archaeological field work and training	4,790
<b>University of Pittsburgh</b>	
Institutional grant related to fellowships	3,500
Program in radiation health	46,993
Travel grants to individuals	5,882
<i>Puerto Rico</i>	
<b>Department of Health</b>	
Regionalization of medical and public health facilities	(-32,838)

UNITED STATES (cont'd)

University of Puerto Rico

Institutional grant related to fellowships	\$ 500
School of Nursing	10,000
University Community Hospital	20,000

*Rhode Island*

Brown University

English language teaching program in the United Arab Republic	119,723
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*South Carolina*

University of South Carolina

Research in international relations	1,000
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*Tennessee*

University of Tennessee

*Memphis*

Exchange program with the Faculty of Medicine, University of Valle, Colombia	32,952
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*Knoxville*

Institutional grant related to fellowships	2,000
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Vanderbilt University

Institutional grant related to fellowships	1,500
Department of Economics and Business Administration	7,717
Student assistance program	22,500

*Texas*

Baylor University

Institutional grant related to fellowships	1,000
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Texas A & M University

Institutional grant related to fellowships	3,000
Department of Animal Husbandry	17,522
Texas Agricultural Experiment Station	6,000

University of Houston

Institutional grant related to fellowships	1,000
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University of Texas

Institutional grant related to fellowships	2,500
Establishment of a nonprofit inter-American scholarly book center in Mexico City	100,000

PAYMENTS • 1964

Guides to Latin American historical sources	\$ 12,400
Participation in an English language teaching program at the University of Valle, Colombia	43,873
Travel grants to individuals	5,311
<i>Utah</i>	
Brigham Young University	
Research in international relations	7,950
University of Utah	
Institutional grant for visiting professorships at the University of Ibadan, Nigeria	13,994
Modern dance program	1,700
Utah State University of Agriculture and Applied Science	
Institutional grant related to fellowships	4,000
<i>Vermont</i>	
University of Vermont	
Research in international relations	4,623
Travel grants to individuals	504
<i>Virginia</i>	
University of Virginia	
Institutional grant related to fellowships	2,000
Travel grants to individuals	328
<i>Washington</i>	
Seattle Repertory Theatre	
Program for development of acting and directing style	21,600
University of Washington	
Institutional grant related to fellowships	2,000
School of Music	7,500
Seattle Symphony Orchestra	15,000
Washington State University	
Institutional grant related to fellowships	2,000
Travel grants to individuals	1,296
<i>West Virginia</i>	
American Symphony Orchestra League	
Workshops for conductors	20,701

UNITED STATES (cont'd)

West Virginia University

Recruitment of senior professors in agriculture to  
serve in East Africa \$ 32,800

West Virginia University Foundation

University library's research collection on East Africa 2,345

Travel grants to individuals 1,143

*Wisconsin*

American Society of Agronomy

Spanish version of *Agronomy in the Americas* 1,000

Drama, Incorporated

Milwaukee Repertory Theater 12,320

University of Wisconsin

Institutional grant related to fellowships 12,500

Research in constitutional democracy 9,000

Research in international relations 9,000

Collaboration in pediatrics with the University of  
Chile 8,160

Department of Agricultural Journalism 14,901

Department of Anthropology (-769)

Graduate Program in Economic History 7,073

Institutional grant for special assignment of senior  
staff to universities in Africa 50,513

Medical education in developing countries 8,505

Program in theatre arts with the University of  
Helsinki, Finland 1,000

Research and training on the breeding, genetics, and  
pathology of the potato 15,600

Research in the field of legal history 2,664

Solar Energy Laboratory 32,443

Study of hemoglobin genetics at the University of  
Ibadan, Nigeria 7,400

Travel grants to individuals 3,720

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Net payments to U. S. institutions, less than \$100 (-145)

Fellowships and scholarships for individuals 32,723



PAYMENTS • 1964

URUGUAY

Research Institute of Biological Sciences

Fellowships and equipment \$ 6,141

University of the Republic

Obstetrical physiology 1,785

Other support

Fellowship, scholarship, and travel grants to individuals 6,157

Shipping of equipment purchased under grants 976

VENEZUELA

Fellowships and scholarships for individuals 3,152

VIETNAM

Fellowships and scholarships for individuals 5,868

ZAMBIA

Office of the Prime Minister

International relations library 2,022

Other support

Fellowships and scholarships for individuals 1,598

TOTAL — 1964 Payments

\$32,617,564

## REFUNDS ON PRIOR YEAR CLOSED APPROPRIATIONS

### INTERNATIONAL

International Bank for Reconstruction and Development,  
Washington, D.C. \$ 3,911

Refunds less than \$100 154

### BELGIUM

University of Brussels 911

### BRAZIL

Refunds less than \$100 8

### ENGLAND

Refunds less than \$100 14

### INDIA

Virus Research Centre, Poona 424

Refunds less than \$100 46

### ITALY

Refunds less than \$100 46

### TRINIDAD

Refunds less than \$100 30

### UGANDA

East African Common Services Organization 109

### UNITED STATES

#### *California*

Stanford University 847

#### *District of Columbia*

Library of the U.S. Department of Agriculture 7,132

Medical Library Association, Inc. 860

#### *Illinois*

American Library Association 2,062

<i>Massachusetts</i>	
Harvard University	\$ 10,490
Harvard University and Massachusetts Institute of Technology	2,842
Massachusetts Institute of Technology	164
<i>Michigan</i>	
Michigan State University	273
<i>Missouri</i>	
St. Louis University	2,090
<i>New York</i>	
Cornell University	204
<i>Encyclopaedia of the Social Sciences</i>	3,125
New York University	12,500
<i>Washington</i>	
University of Washington	1,070
Refunds from U.S. institutions, less than \$100	6
<b>TOTAL — 1964 Refunds</b>	<b>\$ 48,818</b>

**SUMMARY OF FUNDS APPROPRIATED • 1964**

**1964 APPROPRIATIONS AND ALLOCATIONS**

(pp. 101-147) \$25,723,501

**LESS ALLOCATIONS AND GRANTS IN AID  
FROM PRIOR YEAR APPROPRIATIONS  
INCLUDED ABOVE**

3,927,877 \$21,795,624

**APPROPRIATIONS FOR ALLOCATION BY  
EXECUTIVE COMMITTEE OR OFFICERS**

7,074,001

**GRANTS IN AID (1965)**

2,900,000

**FELLOWSHIPS AND SCHOLARSHIPS (1965)**

4,158,500

**PROGRAM SERVICE EXPENSES**

751,018

**ADMINISTRATION AND SUPPORTING  
SERVICES (1965)**

3,723,285

**TOTAL APPROPRIATIONS, 1964**

\$40,402,428

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