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PROGRAM OF DEVELOPMENT STUDIES

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Special Discussion Paper

DISTRIBUTION OF GAINS, WEALTH, AND INCOME
FROM ECONOMIC AND POLITICAL DEVELOPMENT

A Research Proposal

Fall, 1970

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1. Introduction

Despite substantial gains in many directions, the hopes of many developing nations are tempered with frustrations, uncertainties, and a gloomy outlook for the future. Growth in total output and import substitution policies have frequently resulted in the creation of capital and foreign exchange gaps, population pressures have held down per capita growth rates while rates of unemployment were rising, and the landless urban and rural worker frequently is no better off after several decades of growth than he was before growth began. Finally, the gap between the average income in developing nations and in the western industrialized nations has continued to increase. These frustrations are becoming deeper at a time when foreign aid from the developed nations is decreasing or merely holding its own and when many of the developed nations are adding restrictions against exports from the less developed world.

The economic ills described in the preceding paragraph present grave economic and social problems for the United States. A world in which a majority of its people live near the subsistence level, where there is growing disparity between the poor and the rich within the

developing nations and between the living standard of the developing nations and the more advanced industrial nations is likely to be a world of political instability and economic and social crises. For both humanitarian and self-interest reasons, there is an urgent need for additional study of the grave economic, political, and social difficulties which confront the developing nations.

The problems of distribution of gains from development constitute a particularly important and under researched subset of these difficulties. The term "distribution of gains" is merely a shorthand expression, referring in a broad sense to wealth, resources, political power, and income. Furthermore, distribution may be discussed from many points of view: among regions within an underdeveloped country, between the urban sector and the rural sector, between producing sectors of the economy (such as agriculture, manufacturing, and service industries), between groups of employers and employees, and many other ways as well.

Development research, at least in economics, often ignores the distributional aspects of growth, concentrating on the size of the pie rather than its division. Interest in distribution, if shown at all, has mainly reflected concern about equity and social justice. However, the distribution of, for example, income is relevant not merely to questions of equity but also to the ability of a society to allocate resources in such a way as to promote the long-range economic growth of the society. Furthermore, distribution is of interest as a political and sociological issue as well as an economic issue since it involves the kind of leadership a society has or is able to develop, the kind

of decisions made by that leadership, the ability of such institutions as the bureaucracy to enforce these decisions, and the degree of political stability.

To achieve the goal of economic growth a society makes certain decisions concerning which groups or institutions shall sacrifice a share of their potential consumption in the interests of investment (whether private or public) in real or human capital. Such decisions are economic insofar as they involve a rational allocation of goods to spur economic growth; they are political and social insofar as they involve choices between competing power groups and institutions and the enforcement of such decisions. An unequal distribution of income is often tolerated by development economists and political scientists since it is considered necessary to generate the savings for rapid growth. What often is not realized, however, is that the structure of demand created by such an unequal distribution of income may exert its own effect on the form of capital, import, and skill requirements, calling for a path of development that may be disadvantageous in terms of the country's resources. By following such paths developing countries have often resorted to economically inefficient policies to provide the goods demanded by those with purchasing power.

This proposal calls for research into the problems associated with the uneven gains from development. We are not primarily concerned with distribution from a point of view of social justice and equity, although they are important questions. Our primary concern is with the role income distribution plays in determining the development of a country and the way such development affects the distribution of income. The

research envisioned in this proposal necessarily requires interdisciplinary cooperation. Fortunately, the subject of income distribution is one of considerable interest to economists, political scientists, sociologists, and anthropologists. The distribution of income is a main, if not principal, determinant of the political and social structure of a country and this political and social structure in turn determines the development program of a country. This interdependence provides an exciting and profitable focus for interdisciplinary effort.

In the following pages, we shall deal with some of what we consider the most important aspects of the distribution of gains from development insofar as it affects the rate and composition of growth, political and social development, and the economic and political strategy pursued to achieve development. Where relevant the names of individual researchers will be supplied. The credentials in abbreviated form for researchers mentioned individually are given in section 6 of this proposal. In general, however, it may be noted that the Associates of the Program of Development Studies constitute an unusually mature group of scholars in the area of development. All of the individual researchers have extensive experience living and working abroad. They all have publications and research in progress on aspects of development.

Specific questions that will be considered in the next few sections include, but are not limited to, the following:

- (1) How may the distribution of income, by determining the structure of demand in a country, determine the growth and investment strategy pursued by government and private economic decision-making units?

- (2) How may the distribution of income, by affecting the structure of demand, determine the role of foreign investment and conversely in what way does foreign investment affect the distribution of gains from economic growth? What effect does the presence of a significant level of foreign investment have on the political and social structure of the country, and does this in turn affect development policies?
- (3) How may lack of socio-political agreement as to who should pay for development create inflationary pressures, in what ways do inflationary pressures redistribute income in developing countries, and how may the distribution of income itself create inflationary pressures?
- (4) How may the distribution and size of income determine the tax type and its base and indirectly, through the political and social structure, the level and composition of government expenditures? Conversely, how does the level and composition of government expenditures affect the distribution of income?
- (5) To what extent are differences in political parties and public policies the result of compromise between those who seek rapid economic growth and those seeking a more equal distribution of gains from growth? What is the effect of such a compromise on the rate of growth, kind of growth, level of employment, etc.?
- (6) In what sense do differences in development programs of the underdeveloped countries reflect only responses to desires of different elitist economic, political, regional, and social groups? How are the interests of such groups affected by different development strategies?

2. Income Distribution and Economic Structure

The income distribution of a country determines the pattern of demand and consumption and the pattern of investment and production. Three separate but closely related proposals are in this general area of research. Land and Soligo are interested in the way the distribution of income affects employment and composition of production, Smith in the influence of income distribution on the profitability and feasibility of foreign investment, and Huddle and Ho in the relationship between income distribution and inflation.

Land and Soligo propose a general equilibrium model which shows the interaction between limited factor substitutability in production, relative factor payments, income distribution, demand patterns, and employment. Since this model assumes limited factor substitutability in production, it is related to the Richard S. Eckaus article on the Factor Proportions Problem,¹ which shows clearly how limited substitutability in factor proportions may cause underemployment in the sense of redundant labor "arising from resource and technological restraints in the structure of demand." However, Eckaus deals with the factor proportions problem from the production side. The Land-Soligo model is more comprehensive, attempting to deal with the relationship between factor payments (and the distribution of income) and the structure of demand. They hope to show that in achieving the same growth rate there is a trade-off between the set consisting of a skewed income distribution, high savings rates, and preference for capital and import intensive commodities and the set consisting of a more equal income distribution, lower

¹"The Factor Proportions Problem in Underdeveloped Areas," American Economic Review (September, 1955), pp. 539-65.

savings rate, and preference for labor intensive commodities that have a lower import content.

There are several policy implications of the Land-Soligo model. It suggests that the effects on unemployment brought about by fixed factor proportions in production and imperfections in the labor market can be ameliorated by tax measures to encourage shifts in the proportions in which goods are consumed, measures to increase the capital owned by low income earners, and income redistribution measures. In fact any scheme which redistributes income, such as government subsidization of mass production of simple manufactures with low capital and import intensity, may make it possible for a lower rate of savings and greater employment to occur with an unchanged growth rate.

Another policy application of the Land-Soligo model deals with the ownership of capital. Within the structure of their model, efforts to increase employment must be accomplished through changes in the composition of demand. Although such changes may be affected directly through changes in the distribution of income, this is not likely to be the practical way. There are serious political and economic difficulties with massive changes in the distribution of earned income. However, it is likely to be much easier, at least at the margin, to effect changes in the ownership of capital. Such measures might include subsidization of simple manufactures and agriculture by making loanable funds available to small factory owners, farmers, and cooperatives. An even less offensive way of increasing the amount of capital owned by the poor is in increasing the amount of human capital, particularly through education and training.

In addition to its policy implications, the Land-Soligo model provides a framework within which empirical investigation of income distribution can take place. There has been a serious neglect of the distribution of income by those who collect, process and analyze national income data. In addition to its difficulty, part of the reason for this neglect lies in the lack of a framework in which the distribution of income can be related to other economic variables. The Land-Soligo model makes several assumptions which need to be tested empirically. These include information about consumption patterns of different income classes, factor intensity of commodities consumed by different income classes, the ownership of capital by different income classes, as well as the distribution of income itself. Once data on these variables are collected, it will be possible to evaluate the magnitude of effort necessary to affect the level of employment (and the distribution of income) by such measures as changing consumption patterns and/or increasing the capital ownership of certain income classes, and government policies to promote or subsidize certain industries.

Smith is concerned with the role of income distribution in determining the level of foreign investment as well as how foreign investment affects the distribution of income. As such, Smith's proposal is related to the Land-Soligo proposal described above. For example, foreign firms have their big advantage in production of goods for high income groups, which mainly use labor-saving and skill intensive processes. For any given average level of national income, the more unequal its distribution, up to a point, the greater the demand for products in which foreign firms have their greatest advantage. Thus, very unequal income distributions

together with import substitution policies act to encourage foreign direct investment. Consequently, subsidization of industries, either directly or through tariff and quota supports, may have the effect of stimulating foreign investment and perpetuating unequal distribution of incomes.

Smith wishes to develop the theory of foreign direct investment further in order to analyze this set of problems since the present theory of foreign direct investment as it pertains to income distribution is inadequate. In most of the theory, capital is assumed to be a homogeneous, non-product-specific factor of production, and all firms are assumed to have access to the same technology. However, these are not the relevant assumptions for developing countries. Instead the theory must take into account the market power by existing firms, the dual technology in industry, the imperfect capital and technology markets, labor unemployment and tariff protection for industries in which foreign direct investment is important.

As we saw earlier, Smith's main hypothesis is that the distribution of investment is induced by the structure of protection and the capital intensity of industries involved. These factors in turn depend upon the distribution of income and market imperfections. However, a model, such as Smith hopes to develop, that would explain the distribution of investment in a particular country would provide a framework to deal with the following questions:

- (1) Does the presence of foreign industry increase or reduce political pressures for internal modernization?
- (2) Is the development of business oriented parties inhibited or encouraged?

- (3) Does foreign direct investment stimulate nationalism, and hence the power of the central government?
- (4) Does foreign direct investment hasten the development of a labor movement?
- (5) Does foreign direct investment increase political instability?

Many economists have argued that either foreign investment or substantial amounts of foreign aid are necessary to prevent the creation or formation of capital and foreign exchange gaps. Smith suggests, however, that a study of trends in export markets may show that rapid growth in income may be possible without such strong foreign presence if an economy is able to achieve a more equal distribution of income.

The distribution of income interacting through the structure of demand is also the topic of interest for Huddle. However, Huddle's main concern is how this process interacts with inflation--both as a cause and as a result. Huddle's model is one which emphasizes, first, the unidirectional effect of inflation and growth upon distribution and, second, the feedback effects of income redistribution upon inflation and growth. In Latin America, for example, there is the phenomenon of "locked inflation" in which inflation rates increase, growth diminishes, and distribution of income is such that demand will not sustain the pattern of industrial production already achieved. The resulting disequilibrium in commodity markets is partly the result of government subsidization of investment in industry, a subsidization which Huddle believes results in a transfer of income to the entrepreneurial class which not only invests but consumes more absolutely. The added spending is primarily for luxury goods and investment goods which are more capital-intensive

than wage goods. Thus, the implicit tax of inflation on wage earners is reinforced by a relatively reduced demand for labor services. The inflation eventually leads to a lock-in whereby further economic growth becomes impossible, with or without inflation, and without continued and increasing foreign aid and/or foreign demand for imports. Since the latter two factors are becoming less and less feasible, the lock-in may become complete. Huddle suggests a major study to examine alternative means of preventing and/or escaping this structure-lock type of inflation.

In a formal way it can be said that inflation results when the political and economic mechanism of a country is unable to allocate exactly to consumers, government, and investors the goods produced within an economy. Discussion of long-term inflation is usually in terms of aggregate demand and supply, since it is assumed that over and under supplies of particular commodities would be adjusted through the market mechanism. Excess aggregate demand may be the results of deficit spending by the government, or excess demand by consumers and investors with access to borrowing by virtue of easy money policies of the central bank. However, Huddle's interest in the inflation occurring in underdeveloped countries is qualitatively different, since it focuses not on aggregate demand and supply but upon the structure of demand and supply, and furthermore how these structures are related to the distribution of income within a country.

He is interested in a more general study of inflation and its effect upon income distribution, in terms of labor versus non-labor and public versus private shares. He believes that inasmuch as inflation is nearly inevitable in most developing countries, efforts should be made to

identify the channels through which inflationary forces exert their influence upon the strategic growth factors. While the magnitude and direction of redistributive effects of inflation may affect the tempo of growth, the immediate burden of inflation may be determined by non-market forces, particularly political forces. In addition, the redistributive effect of inflation may very well be the outcome of the power play between various economic and political groups.

3. Income Distribution and the Structure of Government

The proposals described above have obvious political and social implications. If the distribution of income determines the structure of demand and consequently the composition of production, it is also likely to influence greatly government policy. Consequently, government policy in a country with a markedly skewed distribution of income is likely to subsidize and favor development of capital and import intensive production-- that is, the production of commodities demanded by the rich. In terms of the Land-Soligo model such policies help generate widespread unemployment; in terms of the Smith proposal, they generate demand for direct foreign investment or at least make such investment attractive; and in terms of the Huddle model, they result in a structure of production and demand with inflation.

The political implications of these models need to be explored. It needs to be questioned, for example, why public policies in the developing economies have been so slow to treat the employment implications of the industrialization schemes they have so vigorously supported. There are a large number of related questions dealing with the level and structure of investment and level and structure of government expenditures and other

public policies that are clearly related to the distribution of income, wealth, and power.

Some of these issues may be summarized along the lines of developmentalism versus populism. Some writers stress the necessity to sacrifice consumption for investment in infrastructure and industrial plant, a distribution of income in favor of those most likely to employ resources to generate long-term growth. Others stress more equitable patterns of income distribution, both as a requisite for growth and for reasons of equity. Though few experts, political leaders, parties, or governments wholly support either position, the difference in emphasis is clear and the potential implication for economic growth, if one or the other approach is pursued, is profound. The former group we call developmentalist; the latter populist. As we have already seen, this compartmentalization may be attacked along strictly economic lines. It is by no means clear that a distribution of income in favor of those who save more will necessarily generate a higher level of growth. Furthermore, even if it does, it is by no means clear that this is more desirable. The resulting level of unemployment and the development of a dual economy may act to retard growth rather than encourage it. The concept of economic progress is called into question when only the growth rate of total output rather than its distribution is considered.

However, the division of development programs between developmentalist and populist is a useful one. Dix proposes research into the structure of development programs and political parties with the idea of comparing developmentalism with populism. His object is to determine the differences and similarities between political movements and public policy in

terms of ideologies and programs, leadership, sectors of population from which they derive their support, the way in which they organize for political action, and actual policies when in office.

In some Latin American countries there have been strong currents of both developmentalism and populism, often coinciding with each other. In Colombia, for example, the national front regime (1958-) has been essentially developmentalist; the government of General Gustavo Rojas Pinilla (1953-1957), and even more so his subsequent political movement ANAPO, were more populist in nature. Since 1964 Brazilian governments have been primarily developmentalist, with the populists in muted opposition; prior to that year, and especially under President Goulard (1960-64), populism had considerable influence on government policy and in several of the then extant political parties. The comparisons of such development systems, Dix hopes, will enhance the value of the conclusions derived.

Differences in ideologies, however, manifest themselves not only in the structure of political systems and government, but in what the government actually does. Krzyzaniak proposes research to show the relationship between the size and composition of government expenditures and receipts and the distribution of income. The distribution of income determines the tax base of the country and who pays for government expenditures. Together, these determine the level and--through the influence of the distribution of income on the political structure--the composition of government expenditures.

As a first step, Krzyzaniak proposes research to evaluate the distribution of the burden of tax and government spending policies and to calculate the net distribution of incomes for private use. This

calculation is necessary to determine how government taxation and expenditure policies affect the distribution of income. However, it is only a first step. For example, expenditures on education may have little direct redistributive effects but significant long-term ones, particularly if an increase in educational expenditures results in greater skills, greater productivity, and ultimately greater income. (This point is closely related to one aspect of the Land-Soligo model). Consequently, as a second step, Krzyzaniak is interested in the long-run incidence of government policies. In his work on the incidence of government spending on education, he shows that expenditures on education result in an increased growth rate which permits a higher level of consumption as well as further development. The incidence of government spending is close to the central problem of economic development, which is to find means to transform the economy as well as to satisfy the rising level of expectations.

Finally, Krzyzaniak would like to systematize present information available on the distribution of income and/or wealth and changes in them in order to test various fiscal intervention hypotheses in an historical, political, and economic setting. For developed nations there is Wagner's law, Peacock and Wiseman's hypothesis of the importance of defense expenditures, and Pryor's work to explain the level and composition of public expenditures in Communist and capitalist nations. Krzyzaniak would like to generalize these studies to underdeveloped countries. He also plans to formulate hypotheses relating major government expenditures and taxation to the social composition of political elites, and to economic events, such as deep depression.

4. Development Planning and Special Interest Groups

Development programs, whether in the form of comprehensive economic and social planning or merely the sum of government efforts to encourage development, rarely reflect purely national economic objectives. More often, they are efforts to reach a national compromise reflecting conflicting objectives of various regional groups, ethnic, religious groups, or vying elitist groups such as the bureaucracy, military, and educated classes. Leaders even within the same group often differ as to the desirable approach to development.

Von der Mehden proposes research to analyze the influence of different groups on the structure of development programs. He suggests economic, political and social research to assess the reasons, both public and private, for the area of concentration of development programs. Such analysis would include examination of the economic considerations in the programs (such as increased production, export earnings, GNP, distribution networks), and political considerations (such as satisfaction of local and national political pressures, ethnic, religious, party and insurgency considerations) in determining the structure of the development programs in each country.

It often has been assumed that development programs of a unified nation that seek to increase as rapidly as possible total output of a nation are somehow more desirable than compromise efforts that, by political necessity, take into account the economic and political future of special interest groups. However, the reasons for this conclusion are by no means apparent. In terms of the models previously described, economic growth must not be viewed in terms of one variable--growth of total output.

Its composition and distribution are inherently important, not only for describing progress or desirable outcomes but in determining the structure and growth of output. For example, a nation forced by political necessity to take into account the effects of development on a particularly poor region, may discover several desirable political and economic consequences of such necessity. The resulting structure of demand may be more feasible in terms of the resource endowment of the country, it may retard the growth of dual economies, and by spreading the results of development more evenly over the population, may postpone or eliminate the problems of rapid urbanization and growing unemployment.

McLure is particularly interested in the questions concerning regional development. Most developing countries are nations of extreme contrast in the standard of living enjoyed by various regions. These contrasts are particularly severe when comparing the regions comprising the major industrial cities and the regions comprising the poor agriculture areas. Furthermore, the differences tend to be self sustaining since the major cities in richer regions tend to grow more rapidly than do the minor cities in poorer regions. One reason for the persistence in differences between the richer and poorer regions lies in government policy. Casual observations suggest that political power is concentrated in the richer regions of a country, and this political power tends to support public policies that support development efforts in the richer cities and regions.

McLure wants to investigate further the disparities in regional development, the sources for such disparities, and the basis of public policy to attempt to change these policies. He suggests that the reasons for disparities and their continuation lie probably within the realm of external economies, the conglomeration effects of development, the subtle impact

of learning-by-doing, the migration of the more able from stagnant regions to those experiencing growth, etc. Policies that have contributed to these disparities include those in the fields of taxation, education, and transportation, to name but a few.

5. Cost of Research

The research program outlined in the preceding pages is ambitious, requiring a minimum of three years for completion. During those three years we would like to support some field work, comprising year-long research stays abroad for individual researchers, summer research, and relief from teaching duties for a semester or full year for other individual researchers. In addition, we would like to support graduate students who are doing research within the general area of this proposal during their third and fourth years of study. Both graduate student research and individual faculty research undoubtedly will require extensive travel abroad and in some cases relocation expenses for the investigators and their families.

We plan to concentrate our research efforts in two countries--one in Latin America, and one in Asia. Negotiations are now underway with researchers and research institutions in the various countries with which associates of the Program have contact and research interests. There has already been a great deal of discussion along these lines and particular interest has been expressed in Colombia, Brazil, Mexico, Malaysia, and Indonesia. Other countries are also under consideration.

In addition to the research proposals which have already been submitted to the Program and which have been incorporated briefly under this research proposal, the Program wishes to encourage further research

proposals from those in the Rice academic community with an interest in the problems spelled out in this proposal. Furthermore, in order to gain expertise in particular countries and in particular areas, the Program plans to support at least one visitor to the Rice campus each year. This visitor would be a recognized research scholar in an area of economics, political science, sociology, and/or anthropology.

We would expect that as many as fifteen different faculty members would be involved in the research proposed here at one time or another during the three years of the original research program. In drawing up the tentative budget given below, we have made the following assumptions: during the first year the Program would support one off-campus twelve-month research grant, one off-campus summer research grant, one on-campus academic year research grant, and eight summer research grants. During the second and third years the Program would support two off-campus twelve-month research grants, two off-campus summer research grants, one on-campus academic year research grant, and eight to ten summer research grants.

In addition the Program plans to hold a conference during the first year with invited papers from outstanding economists, political scientists, and sociologists involved in research in the area of income distribution. It is planned to publish the results of the initial conference on income distribution. Consequently a result will be to increase the amount of published information on the general topic of income distribution, to stimulate new ideas and thinking on this topic, and to help crystalize specific research efforts of the Associates of the Program of Development Studies.

TABLE 1: Man Month Personnel Requirements
of Research Proposal

	FY 72				FY 73				FY 74			
	Off campus		On campus		Off campus		On campus		Off campus		On campus	
	S	A	S	A	S	A	S	A	S	A	S	A
1. Senior Personnel	5	9	14	17	10	18	16	18	10	18	20	18
a. Faculty	5	9	12	9	10	18	14	9	10	18	18	9
b. Research Associates	-	-	2	9	-	-	2	9	-	-	2	9
2. Other Personnel	5	18	8	31½	5	18	16	58½	7	27	16	58½
a. Non-faculty professional	3	9	3	9	3	9	6	18	3	9	6	18
b. Graduate students	2	9	2	9	2	9	4	18	4	18	4	18
c. Secretarial-clerical	-	-	3	9	-	-	6	18	-	-	6	18
d. Technical	-	-	-	4½	-	-	-	4½	-	-	-	4½

S indicates summer

A indicates academic year

TABLE 2A: Estimated Cost of Research Proposal

	FY 72			FY 73			FY 74		
	<u>S</u>	<u>A</u>	<u>T</u>	<u>S</u>	<u>A</u>	<u>T</u>	<u>S</u>	<u>A</u>	<u>T</u>
A. Wages and Salaries	46,368	81,022	127,390	68,558	120,708	189,266	82,948	131,346	214,294
1. Senior Personnel	40,110	54,886	94,996	58,058	80,388	138,446	71,010	85,212	156,222
a. Principal Investi- gators	35,888	35,887	71,775	53,592	60,291	113,883	66,276	63,909	130,185
b. Faculty Associates	4,222	18,999	23,221	4,466	20,097	24,563	4,734	21,303	26,037
2. Other Personnel	6,258	26,136	32,394	10,500	40,320	50,820	11,938	46,134	58,072
a. Non-faculty professional	3,000	9,000	12,000	4,770	14,310	19,080	5,058	15,174	20,232
b. Graduate Students	1,908	8,586	10,494	2,880	12,960	15,840	3,880	17,460	21,340
c. Secretarial- clerical	1,350	4,050	5,400	2,850	8,550	11,400	3,000	9,000	12,000
d. Technical	--	4,500	4,500	--	4,500	4,500	--	4,500	4,500
B. Expendable Supplies and Equipment	1,000	4,000	5,000	1,000	4,000	5,000	1,000	4,000	5,000
C. Travel									
1. Domestic			10,000			2,500			2,500
2. International			10,000			20,000			20,000
D. Publication Costs			20,000			10,000			10,000
E. Other Costs	2,639	4,750	7,389	5,583	10,049	15,632	5,918	10,652	16,571
F. Total Direct Costs (A through E)			179,779			242,398			268,363
G. Indirect Costs			53,023			59,667			70,726
1. 58% of on-campus wages and salaries	17,142	20,815	37,956	20,722	23,313	44,035	27,457	24,711	52,168
2. 28% of off-campus wages and salaries	3,643	11,424	15,067	5,583	10,049	15,632	6,628	11,930	18,558
H. Total Costs (F and G)			232,802			302,065			339,089

**TABLE 2B: Detailed Estimates of Wages and Salaries
Shown According to Off Campus and
On Campus Expenditures**

FY 72	Off campus		On campus		Total		
	S	A	S	A	S	A	T
A. Wages and Salaries	13,009	40,801	33,359	53,230	46,368	81,022	127,390
1. Senior Personnel	10,555	18,999	29,555	35,887	40,110	54,886	94,996
a. Principal Investigators	10,555	18,999	25,333	16,888	35,888	35,887	71,775
b. Faculty Associates	--	--	4,222	18,999	4,222	18,999	23,221
2. Other Personnel	2,454	8,793	3,804	17,343	6,258	26,136	32,394
a. Non-faculty Professional	1,500	4,500	1,500	4,500	3,000	9,000	12,000
b. Graduate students	954	4,293	954	4,293	1,908	8,586	10,494
c. Secretarial - Clerical	--	--	1,350	4,050	1,350	4,050	5,400
d. Technical	--	--	--	4,500	--	4,500	4,500
<u>FY 73</u>							
A. Wages and Salaries	24,880	49,284	43,284	71,424	68,558	120,708	189,266
1. Senior Personnel	22,330	40,194	35,728	40,194	50,058	80,388	138,446
a. Principal Investigators	22,330	40,194	31,262	20,097	53,592	60,291	113,883
b. Faculty Associates	--	--	4,466	20,097	4,466	20,097	24,563
2. Other Personnel	2,550	9,090	7,950	31,230	10,500	40,320	50,820
a. Non-faculty Professional	1,590	4,770	3,180	9,540	4,770	14,310	19,080
b. Graduate students	960	4,320	1,920	8,640	2,880	12,960	15,840
c. Secretarial - Clerical	--	--	2,850	8,550	2,850	8,550	11,400
d. Technical	--	--	--	4,500	--	4,500	4,500
<u>FY 74</u>							
A. Wages and Salaries	27,296	56,394	55,652	74,952	82,948	131,346	214,294
1. Senior Personnel	23,670	42,606	47,340	42,606	71,010	85,212	156,222
a. Principal Investigators	23,670	42,606	42,606	21,303	66,276	63,909	130,185
b. Faculty Associates	--	--	4,734	21,303	4,734	21,303	26,037
2. Other Personnel	3,626	13,788	8,312	32,346	11,938	46,134	58,072
a. Non-faculty Professional	1,686	5,058	3,372	10,116	5,058	15,174	20,232
b. Graduate students	1,940	8,730	1,940	8,730	3,880	17,460	21,340
c. Secretarial - Clerical	--	--	3,000	9,000	3,000	9,000	12,000
d. Technical	--	--	--	4,500	--	4,500	4,500

The assumptions in terms of months of support for the three years of the Program are given in Table 1. An estimate of the monetary costs of different aspects of the Program are given in Table 2. It must be emphasized that both time and monetary estimates are highly tentative and depend crucially on the receipt of more detailed research proposals from the Associates of the Program of Development Studies. It is anticipated that more precise and detailed financial estimates will be available by December 1, 1970.

6. Associates of the Program of Development Studies
with Educational and Research Background

Robert H. Dix

Educational Background:	Harvard College	B.A.	1951
	Harvard University	M.A.	1953
	Harvard Graduate School of Arts & Sciences.	Ph.D.	1962
			in Government.

Experience Abroad

United States Foreign Service (1957-60), primarily as a political officer of the U.S. Embassy, Bogota, Colombia.
Residence while doing research during summer of 1963 in Colombia, and during the summer of 1965 and academic year 1966-67 in Chile.

Publications and Research in Progress *

A. Publications

Colombia: The Political Dimensions of Change (Yale University Press, 1967)

Oppositions and Development in Latin America (ch. of a book on Emerging Oppositions being edited by R. A. Dahl for Yale University Press, forthcoming).

Chile: The Politics of Intermediate Development (book to be published under auspices of Harvard Center for International Affairs, forthcoming).

* Publications and Research in Progress are limited to representative work in the area of development studies.

Yhi-Min Ho

Educational Background: National Taiwan University B.A. 1955
(Taipei, Taiwan)
Utah State University M.S. 1961
Vanderbilt University Ph.D. in
Economics 1965

Experience Abroad

Marketing Division, Chinese Petroleum Corporation, Taipei, Taiwan
1955-1958.

Publications and Research in Progress

A. Publications

Agricultural Development of Taiwan, 1903-1960, Nashville, Tenn.,
Vanderbilt University Press, 1966.

"Development with Surplus Population: The Case of Taiwan - A
Critique of the Classical Two-Sector Model, a la Lewis,"
forthcoming in Economic Development and Cultural Change.

"On Taiwan's Agricultural Transformation under Colonialism:
A Critique." To be published in The Journal of Economic History.

B. Research

"Returns to Investment in Agriculture: A Comparative Study of
the Experience of Japan (1878-1942) and Taiwan (1901-1965)"

"The Redistribution Effect of Inflation on the Labor Share in
National Income,"

"The Effect of Inflation on the Share of the Public Sector in the
Developing Nations."

Donald L. Huddle

Educational Background: University of California B.S. 1959
(Los Angeles)
University of California M.A. 1960
(Los Angeles)
Vanderbilt University Ph.D. in
Economics 1964

Experience Abroad

Coordinator for Summer Research Project, Brazil, 1966 (AID)

Publications and Research in Progress

A. Publications

"Plano Trienal; critica do setor externo," Revista Brasileira De
Economia (Getulio Vargas Foundation, Rio de Janeiro, Brasil)
Ano 16, Numero 4, Dec. 1962, pp. 143-153.

Donald L. Huddle--continued.

- "The Brazilian Industrialization: Sources, Patterns, and Policy Mix," review article for Economic Development and Cultural Change (University of Chicago), July 1967, pp. 472-479.
- "Measurement of Import-Substitution Industrialization in Brazilian Growth," Revista Brasileira de Economia, June 1969, pp. 38.
- "Allocating Foreign Aid: An Appraisal of a Self-Help Model," (with J. Conlisk), The Journal of Development Studies, (London, England), July 1969, pp. 245-251.
- "New Evidence on Price Elasticities in International Trade," Oxford Economic Papers, pp. 15, July 1970.
- "An Analysis of Recent Economic Development in Brazil: Recommendations for U.S. Aid Policy Over the Next Five Years," a policy study paper for The Agency for International Development (Washington, D.C.), September 1966.
- "Unemployment and Underemployment in Brazil: Implications for Economic Policy," a research paper for The Agency for International Development (Washington, D.C.), October 1966. Classified
- "Inflation and Devaluation: An Evaluation and Test of Conventional Notions," to be submitted to The Journal of Political Economy in Fall, 1970.
- "The Postwar Brazilian Industrialization: Growth Patterns, Inflation, and Sources of Stagnation," in E. Baklanoff (ed.), The Shaping of Modern Brazil (Louisiana State University Press) February, 1969, pp. 86-108.

B. Research

- "Industrialization and Labor Absorption Processes in Latin America."
- "Evaluation of the Duty Free Areas on the Mexican Border."
- "Inflation and Economic Development in Latin America."

Marian Krzyzaniak

<u>Educational Background:</u>	University of Poznan (Poland)	M. Econ. & Pol.Sci.	1932
	University of Innsbruck (Austria)	--	1945
	University of Alberta (Edmonton) Canada	M.A.	1954
	M.I.T.	Ph.D. in Economics	1959

Experience Abroad

- Civil servant in Poland.
Editor of a Polish weekly magazine in Rome.
Public relations officer with Polish Forces in Italy.

Marian Krzyzaniak--continued.

Publications and Research in Progress

A. Publications

In collaboration with Richard A. Musgrave, The Shifting of the Corporation Income Tax, Baltimore, The Johns Hopkins Press, 1963. Chapters 1 and 2 to be reprinted in Public Finance by R.W.Houghton Baltimore, Md., Penguin Books, 1970.

Editor of Effects of Corporation Income Tax, Detroit, The Wayne State University Press, 1966.

"The Long-run Burden of a General Tax on Profits in a Neoclassical World," read before the Southern Economic Association meeting in Atlanta, Georgia, November 1966, Public Finance, XXII, 1967.

"Factor Substitution and the General Tax on Profits," read before the Econometric Society meeting in Evanston, Ill., Dec., 1968.

"Benefit-Cost and Incidence Analysis of Transfers, Financed by a Profits Tax, in a Neoclassical World, with Two Labor Inputs," mimeographed at Rice University, 1969.

"The Differential Incidence of Taxes on Profits and on Factor Income," mimeographed at Rice University, 1970.

"The Long-run Incidence of Government Spending on Education," in process of being mimeographed at Rice University.

B. Research

Generalizing the study of the long-run incidence of government spending on education to a world with C.E.S. Production Functions

Generalizing the long-run incidence of a non-general profits tax to a world in which the sectoral production function and the elasticity of demand are constant but different.

In cooperation with Prof. Donald Huddle finding empirical evidence for the effects of government spending on education.

Starting a treatise on incidence of taxes on incomes.

James H. Land

<u>Educational Background:</u>	Southern Methodist University	B.A.	1957
	Southern Methodist University	M.A.	1960
	Princeton University	Ph.D. in Economics	1963

Experience Abroad

Research Consultant and Director of Project for the State Institute of Statistics in Ankara, Turkey and Yale University Economic Growth Center, 1964-65, and parts of 1968, 1969, 1970.

Consultant to Organization for Economic Cooperation and Development and AID, parts of 1968, 1970.

James W. Land--continued.

Publications and Research in Progress

A. Publications

Economic Accounts of Government in Turkey, 1938, 1948, 1950, 1953-1961. (Ankara: State Institute of Statistics, 1969).

Economic Accounts of Public Enterprises in Turkey, 1939-1963 (Ankara: State Institute of Statistics, 1969).

"The Role of Public Enterprises in the Economic Development of Turkey," accepted for inclusion in Government and Economic Development, Gustav Ranis (ed.), (New Haven: Yale University Press, 1970).

"An Analysis of Turkey's Second Five Year Plan: The Public Sector," a study prepared for the Organization of European Cooperation and Development, 1967.

"The Changing Role of Government in the Economic Development of Turkey," paper read to The Middle East Studies Association Annual Meeting, November 1968, and submitted for publication to The Journal of Economic History.

B. Research

The Public Sector in the Economic Development of Turkey, forthcoming publication of the Yale University Economic Growth Center, 1971.

The Economic Development of Turkey, forthcoming publication of the Yale University Economic Growth Center, 1971.

Value-added Taxation; Fiscal Federalism; Fiscal Policy since 1964.

Charles E. McLure, Jr.

<u>Educational Background:</u>	Kansas University	B.A.	1962
	Princeton University	M.A.	1964
	Princeton University	Ph.D. in Economics	1966

Experience Abroad

Staff member, Colombian Commission for Tax Reform (Musgrave Commission) Summer, 1968.

Consultant to U.S. Treasury Department, Summer, 1967.

Tax Adviser to the government of Malaysia (under auspices of Harvard University Development Advisory Service), Summer 1969.

Publications and Research in Progress

A. Publications

"Commodity Tax Incidence in Open Economies," National Tax Journal, June 1964, pp. 187-204.

5 Chapters in Fiscal Reform for Colombia: The Final Report and Staff Papers of the Colombian Commission for Tax Reform,

Charles E. McLure, Jr.--continued

Malcolm Gillis, ed., (forthcoming):

1. Tax Incidence in Colombia
2. Automotive Taxation
3. Tax Incentives for Colombia
4. The Design of Regional Tax Incentives
5. Coordination of Tariffs and Internal Indirect Taxes
(with Malcolm Gillis)

Robert Edwin Pendley

<u>Educational Background:</u>	University of California (Berkeley)	A.B.	1960
	University of Oregon	M.A.	1963
	Northwestern University	Ph.D. in Pol. Science	1969

Experience Abroad

Field research on the politics of the international control of nuclear fissionable materials, and the relation to arms control and disarmament; study using statistical data and techniques of linkages between nations as influences on their domestic and foreign policies (Paris, Vienna, and Brussels), 1966-69.

Field research sponsored by the Carnegie Endowment for International Peace and Rice University on the role and impact of international organizations in social and economic development (Geneva and Vienna), 1970.

Publications and Research in Progress

A. Research

International Linkages and National Policies (in collaboration with George Antunes, Rice University). Under a grant from the Council of the Center for Research in Social Change and Economic Development over 300 variables at three time points for a selected sample of 57 nations was gathered. The data measure important aspects of the international environment, including such things as trade, aid, investment, alliances, expropriations, and elite interaction. The object of the research is to compare the ability of a national attribute model to explain national expenditure policies with a model which also takes into account the impact of extra national variables.

Ronald Provencher

<u>Educational Background:</u>	University of Missouri	B.A.	1959
	University of California (Berkeley)	Ph.D. in Anthropology	1968

Ronald Provencher--continued.

Experience Abroad

Field research for doctoral dissertation - Selangor, Malaysia
September 1964 to December 1965.

Publications and Research in Progress

A. Publications

"The City in Malay Culture," paper to be presented at the 69th annual meeting of the American Anthropological Association.

"Urban Malay Psychiatry," paper to be presented at the 69th annual meeting of the American Anthropological Association.

Two Malay Communities in Selangor, revised Ph.D. dissertation, to be published in the monograph series of the University of California Center for South and Southeast Asian Studies.

"Comparisons of Social Interaction Styles: Urban and Rural Malay Culture," in Ethnic Adaptations to the City, T. Weaver and D. White (eds.), to be published by Human Organization.

"Group Pertinence in Urban Malay Society," in Readings in Urban Anthropology, N. Chrisman and N. Eddington (eds.), to be published by Free Press.

B. Research

Urban Malay Villagers, a book-length manuscript, very near completion, to be submitted to Holt, Rinehart and Winston or Little, Brown and Company.

The Anthropology of Southeast Asia, a book-length manuscript for Goodyear Publishing Company

Gaston V. Rimlinger

<u>Educational Background:</u>	University of Washington	B.A.	1951
	University of California	Ph.D. in Economics	1956

Experience Abroad

Interpreter for U.S. Army and U.S. Military Government.

Advisor to the Ford Foundation in Lagos, Nigeria, 1969-71.

Publications and Research in Progress

A. Publications

Welfare Policy and Industrialization in Europe, America and Russia, A Comparative Historical Study. Submitted for publication, 384 pp. typed.

"American Social Security in a European Perspective," in F.H. Harbison, The American System of Social Insurance (New York: McGraw-Hill, 1968, pp. 213-232.

Gaston V. Rimlinger--continued.

- "Industrialization, Nation Building, and Social Security," included in a volume published by the Social Security Administration, 1969.
- "Income Security and Economic Growth: A Theoretical Model of the German System," Joint Economic Committee, U.S. Congress, Old Age Income Assurance (Washington, D.C.: G.P.O., 1968), Part II, pp. 357-361.
- "The Expansion of the Labor Market in Capitalist Russia: 1861-1917," Journal of Economic History (June, 1961), 208-215.
- "Welfare Policy and Economic Development: A Comparative Historical Perspective," Journal of Economic History, Vol. XXVI, No. 4, (Dec. 1966), pp. 556-571.

B. Research

- "West African Economic Development"
(presently on leave in West Africa)

Gordon W. Smith

<u>Educational Background:</u>	Washington University	A.B.	1956
	Harvard University (Divinity School)	--	1956-58
	Harvard University	Ph.D. in Economics	1966

Experience Abroad

- September, 1962 to October, 1963 - in Brazil gathering material for Ph.D. dissertation.
- October, 1965 to July, 1967 - in Brazil as technical advisor in economics in the Ministry of Planning's Institute of Applied Economic Research. This involved work on the formulation of the Ten Year Plan and later on the Three Year Plan.

Publications and Research in Progress

A. Publications

- "A Agricultura e O Plano Trienal," Revista Brasileira de Economia, Dezembro de 1962. ("Agriculture and the Brazilian Three-Year Plan," Brazilian Economics Journal, December, 1962.
- "Brazilian Agricultural Price Policy 1950-1967," in Howard S. Ellis' (ed.) Essays on the Economy of Brazil. (Berkeley: University of California Press, 1969.)
- "On the Measurement of Import Substitution," with Samuel A. Morley. American Economic Review, September, 1970.
- "Import Substitution and Foreign Investment in Brazil," with Samuel A. Morley, Oxford Economic Papers, forthcoming.

Gordon W. Smith--continued.

B. Research

Revision and updating for publication of Ph.D. dissertation,
Marketing and Economic Development: A Brazilian Case Study.

"Government Expenditures, Comparative Advantage and Protection."
An article which attempts to examine the impact of government
expenditure patterns on comparative advantage and of protection,
through several hypothetical political mechanisms, on govern-
ment expenditures.

Ronald Soligo

Educational Background: University of British Columbia B.A. 1958
Yale University Ph.D. in
Economics 1964

Experience Abroad

Research Adviser, Pakistan Institute of Development Economics, Karachi,
Pakistan (in co-operation with the Stanford University Pakistan
Project sponsored by the Ford Foundation) during 1963-1965.

Residence during the summer of 1968 in further research and advisory
capacity in Karachi, Pakistan.

Publications and Research in Progress

A. Publications

"Growth and Structural Change in Pakistan's Manufacturing Industry,
1954 to 1964, Pakistan Development Review, Spring 1964 (with
Stephen R. Lewis, Jr.).

"Tariff Protection, Import Substitution and Investment Efficiency,"
Pakistan Development Review, Summer 1965 (with Joseph J. Stern).

"Export Bonus, Export Promotion and Investment Criteria, (with Joseph
J. Stern), Pakistan Development Review, Spring 1966.

"Tariff Protection, Import Substitution and Investment Efficiency:
Reply," (with Joseph J. Stern), Pakistan Development Review,
Spring 1966.

"Monetary Problems of Pakistan," Journal of Political Economy,
October 1967.

"Rural-Urban Migration, Agricultural Output, and the Supply Price of
Labor in a Labor Surplus Economy," Oxford Economic Papers,
July 1968, pp. 230-248 (with Albert Berry).

"Some Welfare Aspects of International Migration," Journal of
Political Economy, September/October, 1969 (with R. Albert Berry).

"Real and Illusory Aspects of an Overvalued Exchange Rate: The
Pakistan Case," forthcoming in Oxford Economic Papers.

B. Research

The Economic Development of Pakistan, forthcoming publication of
the Yale University Economic Growth Center.

Fred R. von der Mehden

Educational Background: University of the Pacific B.A. 1948
Claremont Graduate School M.A. 1950
University of California Ph.D. in
(Berkeley) Pol. Science 1957

Experience Abroad

1959-60 Research to Burma (Fulbright Grant)
1963 - Research in Southeast Asia (Ford Grant)
1964 Southeast Asia and India consultancy (International Area
Studies)
1965-67 Research in Thailand with AID
1969 Research and Consultancy in Thailand and Indonesia

Publications and Research in Progress

A. Publications

Politics of the Developing Nations, Prentice-Hall, 1964. Rev. 1969.
Issues of Political Development (with Anderson-Young), Prentice-Hall,
1967. Japanese edition, 1969.
The Military and Politics in Five Developing Nations, co-author,
CRESS, 1970.
Local Authority and Administration in Thailand, editor with Wilson,
AACT, 1970.
"Party Development in Newly Independent States," Social Science, 1959.
"Political Action by the Military in the Developing Areas," with
C. Anderson, Social Research, 1961.
"Some Aspects of Political Ideology in Malaysia," Studies on Asia,
1964, 1965.
"The Growth and Development of the Religio-Nationalist Movement in
Southeast Asia," to be reprinted from Religion and Nationalism
in Southeast Asia: The Politics of National Integration, by
by John T. McAlister, Knopf Publishers.
"Development and Insurgency in Northeast Thailand," with R. Butwell,
completed.
"The Role of the Military in Development in Thailand," Journal of
Comparative Administration, 1970-71.

B. Research

"Secularization of Theravada Buddhism; Burma and Thailand," paper
to be given in Honolulu and to be published in Hawaii next year.
Comparative Political Violence, book manuscript to be completed this
year in Wiener-LaPolombara series as individual book and lead
section in three-part study.
"Impact of Technology on Bureaucracy and Politics in Asia," with
Briabanti. Edited papers of Hong Kong Meeting, 1971.