

# Redistributing Income Through the Budget in Latin America \*

## I. Introduction

The current public concern with income distribution is not a totally new phenomenon; bringing about a distribution of income that reflects the prevailing views of society in this matter has in fact been one of the traditional objectives of public economic policy. What is new today, however, is the extent of such a concern. There are now quite a few writers on economic and social matters that are arguing that income redistribution should be considered the most important, if not the sole, objective of governmental economic activity.

There are obviously many alternative ways in which the government of a country can bring about a more even distribution of income. All of these ways are theoretically possible although in practice political or practical considerations will make some of them more feasible than others.

First of all income can be redistributed by a direct redistribution of property as it happens in the case of land reform without full compensation. Secondly, it may take place when the government of a country takes control of the means of production through nationalization; when this is done the government can determine the way in which income will be distributed although it will have to deal with the fact that the size of total income will not be indifferent to the way in which income is distributed. Thirdly, some redistribution of income can be achieved through the fixing of certain prices; this is the case of minimum wages, rent controls, rates of certain public services, of certain agricultural products, etc. In addition redistribution effects will result when-

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ever the government changes the "rules of the game" by permitting the establishment of monopolies or by enforcing competition whenever a monopoly already existed.

All of these and more options are available to the governments and are used by them. This paper, however, will not deal with those options but will, rather, concentrate on the changes which can be brought about *after* gross income has already been generated. In other words, it will emphasize the role of budgetary policy on income redistribution. Or, putting it differently, it will discuss the role that taxes and public expenditures are supposed to have in redistributing income.

## II. Income Distribution in Latin America

Before we come to deal with budgetary policy in Latin America it is important to fix some ideas about the degree of unevenness of income distribution. Data on income distribution are notoriously deficient and must, thus, always be used with great caution; however, there is little doubt that the distribution of income in Latin America is very uneven and certainly more skewed than in most developed countries. Table I which summarizes much of the evidence available from both published and unpublished sources, shows clearly the extent to which the previous statement is accurate. Several writers have also mentioned that the distribution of income has been becoming less even in Latin America in recent years. However, with the exception of Brazil, such a statement cannot be substantiated by empirical information.

The Economic Commission for Latin America has estimated that the lowest 20 percent (the lowest quintile) of all the income units receives about 3.1 percent of the total income of Latin America. The percentage received by the next 30 percent is reported to be 10.3. Thus the poorer half of the population receives about 13.4 percent of the total. This is estimated to be just about the share of total income received by the top one percent. It is also of interest to compare that figure with the percentage received by the richer half of the population. The 30 percent above the median — i.e. 51st to 80th percentile — receives about 24.1 percent of the income. The top 5 percent receives about 33.4 and the 15 percent below the top 5 receives 29.2.

TABLE I  
DISTRIBUTION OF PERSONAL OR FAMILY INCOME FOR SELECTED LATIN AMERICAN COUNTRIES AN FOR SELECTED YEARS

	1st decile	2nd decile	3rd decile	4th decile	5th decile	6th decile	7th decile	8th decile	9th decile	10th decile	Lowest 20%	30% below median	30% above median	15% below top 5%	Top 5%	Top 1%
Argentina (1961) F	2.9	4.1	4.8	5.5	6.1	7.0	8.0	9.6	12.9	39.1	7.0	16.4	24.6	22.6	29.4	14.5
Argentina (1961) I	1.9	3.3	4.2	5.1	6.0	7.1	8.3	10.0	13.2	40.9	5.2	15.3	25.4	22.9	31.2	16.3
Bolivia (1968) F	3.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	3.5	11.0	26.4	23.4	35.7	n.a.
British Guiana (1956) F	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	5.0	16.0	26.4	23.4	35.7	n.a.
Brazil (1970) I	1.1	2.05	2.97	3.88	4.90	5.91	7.37	9.57	14.45	47.75	3.16	11.75	22.85	27.38	34.86	14.57
Brazil (1960) I	1.17	2.32	3.42	4.65	6.15	7.66	9.41	10.85	14.69	39.66	3.50	14.22	27.92	26.66	34.86	12.11
Colombia (1964) I	0.9	1.9	2.7	3.5	4.5	5.5	7.5	10.0	15.5	48.0	2.8	10.7	23.0	28.5	35.0	n.a.
Colombia (1964) U.I.	0.5	0.5	2.0	3.5	4.5	6.0	8.5	11.5	16.0	47.0	1.0	10.0	26.0	30.0	33.0	13.0
Costa Rica (1971) F	2.1	3.3	4.2	5.1	6.2	7.5	9.3	11.7	19.2	34.4	5.4	15.5	28.5	27.8	33.0	8.5
Costa Rica (1961) F	2.6	3.4	3.8	4.0	4.4	5.4	7.1	9.3	14.0	16.0	6.0	12.2	21.8	25.0	35.0	16.0
Chile (1968) F	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	n.a.	n.a.	n.a.	29.0	35.0	n.a.
Ecuador (1957) I	6.3	10.6	14.2	18.0	22.0	26.0	30.0	34.0	38.0	42.0	6.3	n.a.	n.a.	20.3	25.2	n.a.
Ecuador (1963) I	2.4	3.1	3.2	3.3	4.0	4.8	7.2	10.6	15.8	45.6	5.5	10.5	22.6	28.4	33.0	18.0
El Salvador (1961) A.I.	6.0	14.2	18.0	22.0	26.0	30.0	34.0	38.0	42.0	46.0	6.0	14.2	22.9	21.9	35.0	n.a.
Guatemala (1950) F	1.3	2.5	3.5	4.5	5.5	6.5	8.3	11.2	18.0	43.5	2.2	10.7	25.6	31.3	33.0	n.a.
Honduras	1.5	2.1	3.1	3.8	4.9	6.0	8.1	12.0	17.0	41.5	3.6	11.8	26.1	29.5	30.2	n.a.
Jamaica (1958) F	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	16.0	42.0	3.0	12.0	25.0	31.0	33.0	n.a.
Mexico (1963) F	1.9	3.0	3.7	5.9	6.0	6.5	7.0	9.4	12.6	44.0	4.9	15.6	22.9	32.0	34.5	16.5
Nicaragua (1970) I	1.9	3.0	3.7	5.9	6.0	6.5	7.0	9.4	12.6	44.0	4.9	15.6	22.9	32.0	34.5	16.5
Panama (1960) A.I.	3.0	7.0	10.0	14.0	18.0	22.0	26.0	30.0	34.0	38.0	3.0	12.0	25.0	31.0	33.0	n.a.
Panama (1969) I	1.0	1.0	2.0	2.0	3.0	4.0	4.0	6.0	10.0	45.0	3.0	n.a.	26.0	31.0	33.0	n.a.
Peru (1963) I	1.0	1.5	2.2	3.3	4.3	5.9	7.6	9.8	15.2	49.2	3.5	9.8	23.3	25.4	39.0	25.4
Peru (1961) I	1.4	1.6	3.0	3.7	4.6	6.0	8.3	13.4	17.3	40.7	3.0	11.3	27.7	31.5	36.5	9.0
Venezuela (1962) F	1.4	1.6	3.0	3.7	4.6	6.0	8.3	13.4	17.3	40.7	3.0	11.3	27.7	31.5	36.5	9.0

Notes: I = individuals; F = family; UI = urban individuals; AI = active individuals.

Sources: VITO TANZI, based on the following studies:

ARGENTINA: United Nations, *Economic Development and Income Distribution in Argentina* (U.N.: New York, 1969) - BOLIVIA: National Secretariat of Planning (Prepared by Rolando Sanz-Guenero for AID) - BRITISH GUIANA: Molinder S. Bhatia, "Income Distribution, Tax Structure and Burden of Taxation in British Guiana" (unpublished, 1962) - BRAZIL: Carlos Geraldo Langoni, "Distribuição da Renda e Desenvolvimento Econômico do Brasil" (unpublished) - COLOMBIA: Musgrave and Gillis, *Fiscal Reform for Colombia* (Harvard Law School, 1971), and for urban population (IU), Miguel Urrutia Montoya and Clara Elsa Villalba, "La Distribución de Ingresos Urbanos para Colombia en 1964" - CHILE: ECLA, *Economic Survey of Latin America*, 1969, Part 3, Special Studies. Data have been slightly adjusted to fit the deciles. - CUBA: *Informe Económico de Cuba*, 1968 - CHILE: ECLA, *Economic Survey of Latin America*, 1969, Part 3, Special Studies. Data have been slightly adjusted to fit the deciles. - GUATEMALA: A. Abizam, "Income Distribution in Latin America, 1971 - GUATEMALA: Social and Economic Studies, September 1964 - MEXICO: U.N. *Income Distribution in Latin America*, 1971 and Banco de México, *Encuesta sobre ingresos y gastos familiares en México*, 1963, (unpublished) - PANAMA: 1960 (active population) from U.N. "Economic Survey of Latin America", 1969. From Charles Melute, Jr., "The Distribution of Income and Tax Incidence in Panama", 1968 (unpublished) - PERU: Eugene Grady, "The Distribution of Total Personal Income in Peru", Iowa-Peru Program, Iowa State University, 1968; 1961; Richard Webb, "The Distribution of Income in Peru", 1972, unpublished - VENEZUELA: U.N., *Income Distribution in Latin America*, 1971; for Honduras and Nicaragua: SIBCA, *El desarrollo integrado de Centroamérica en la presente década*, 1972.

It can be estimated that the top five percent of income receivers receives roughly the same share of total income as the lowest 70-75 percent, or about the same share as the middle 60 percent.

Accepting the information provided above as valid, the next interesting question that we want to raise — since it is relevant to the discussion of budgetary policy — is: who are the poor? or, putting it differently, what are the characteristics of the poor? This is an extremely important question the answer to which is definitely needed for carrying out programs that will redistribute income. Perhaps, a brief digression is needed at this point.

Whenever the objective of government action is to change *relative* incomes, tax policy is theoretically capable of achieving this objective. The tax system in fact can be made progressive enough that, in theory, the aftertax distribution is closer to that deemed desirable by the policymakers. As we shall argue later, however, in practice it becomes very difficult for both political and administrative reasons to give to the tax system the degree of effective progressivity that is required.

In the Latin American case, however, the objective of income redistribution is not just to change relative incomes but to do so while making sure that the poorest groups receive at least a certain *absolute* minimum. This, of course, tax policy alone cannot do. Thus, it has often been suggested that the problem should be solved through public spending and particularly through public spending for social-type expenditures such as education, health and so forth.

Now, we come back to the characteristics of the poor. Tax policy requires, in theory, no knowledge about those characteristics. On the other hand a program that would tend to rely on social-type expenditures to redistribute income does require a rather detailed knowledge about who the poor are and what their basic, or key, characteristics are. The knowledge that we have in this respect is very limited. This is definitely a fertile ground for research.

Some knowledge, however, we do have. First and most importantly there is a high concentration of low-income groups among the agricultural and rural population. Families at the bottom of the income distribution are mostly subsistence farmers and, in many of the Latin American countries, they are subsistence farmers who often speak some different language and have racial characteristics which are distinct from those prevailing in the cities

and among those who make up the upper part of the income distribution.

With the exception of Argentina and probably of Uruguay, urban incomes in Latin America are twice or more as large as rural incomes (see Table 2). Consequently, most of those who make

TABLE 2

RURAL AND URBAN INCOMES AND THE RELATIVE COMPOSITION OF THE INCOME STRUCTURE OF SELECTED COUNTRIES

Sector	Average incomes (rural average = 100)	Percent of all income units	Percentage composition of different income groups				
			Lowest 20%	30% below median	30% above median	15% below top 5%	Top 5%
<b>Venezuela<sup>a</sup></b>							
Rural . . . . .	100	40.8	72.9	48.6	28.7	16.3	12.2
Urban . . . . .	250	59.2	27.1	51.4	71.3	83.7	87.8
<b>Mexico</b>							
Agricultural . . . .	100	43.7	68.2	56.3	26.6	26.4	20.7
Non-agricultural . .	198	56.3	31.8	43.7	73.4	73.6	79.3
<b>Brazil</b>							
Agricultural . . . .	100	45.4	62.2	65.1	34.5	17.3	12.1
Non-agricultural . .	273	54.6	37.8	34.9	65.5	82.7	87.9
<b>Costa Rica</b>							
Agricultural . . . .	100	50.0	76.4	80.3	23.8	16.5	19.6
Non-agricultural . .	184	50.0	23.6	19.7	76.2	83.5	80.4
<b>El Salvador</b>							
Agricultural . . . .	100	60.2	100	87.9	30.4	23.3	18.8
Non-agricultural . .	229	39.8	0	12.1	69.6	76.7	81.2
<b>Argentina</b>							
Agricultural . . . .	100	14.8	21.9	20.0	6.9	12.2	14.9
Non-agricultural . .	115	85.2	78.1	80.0	93.1	87.8	85.1

Note: <sup>a</sup> Classification for Venezuela is different from that for other countries.

Source: UNITED NATIONS, *Income Distribution in Latin America*, (New York: 1971).

up the lowest 20 percent of the income distribution come from this group. To provide a few examples, in El Salvador all of those people who make up the poorest 20 percent of the population are reported to live in the rural sector. For Venezuela 73 percent of the very poor come from rural areas and only 27 percent from urban areas. For Mexico these percentages are 68.2 and 31.8 respectively. For Costa Rica, they are 76.4 and 23.6 and for Brazil 62.2 and 37.8 percent. In Argentina, on the other hand, due to the small proportion of the population living in rural areas and, perhaps to the linguistic and racial homogeneity of the population and due to the relatively high agricultural incomes, most of the very poor (78.1 percent) live in urban areas. But this is definitely an exception.

If we extend this group to the next 30 percent of the population, the percentage of those in this group who live in urban areas rises somewhat but, in most countries, the agricultural sector still predominates. Once more the notable exception is Argentina. We can again provide a few examples. In El Salvador 87.9 percent of those in this group live in rural areas. In Costa Rica the percentage is 80.3. In Brazil it is 65.1; in Mexico it is 56.3.

From the estimates provided above it can be concluded that, by and large, the poorer half of the population is often made up of people living at or near the subsistence level in rural areas. The group includes, however, significant numbers of people living in slums around large cities as well as many living in small towns. Most of these people have incomes that range from around U.S. 50 dollars per capita per year to around U.S. 150-200 dollars.

A second important characteristic of the poor in Latin America — and, for that matter, anywhere else — is the lack of education. In fact, most of them are illiterate<sup>1</sup> and the rest comes mainly from those who, though not illiterate, have relatively little education. Education and income are strongly correlated in Latin America so that an individual with little or no education has a disproportionately high probability of being poor.

In addition to the characteristics mentioned above one finds a few less distinct ones. Thus poor families normally have fewer workers among the family members, they are larger in size and

<sup>1</sup> There is substantial evidence on this. See, *inter alia*, ALBERT FISHLOW, "Brazilian Size Distribution of Income", *AER Papers and Proceedings*, May 1972; and RICHARD C. WEBB, "The Distribution of Income in Peru" (unpublished), September 1972.

generally have more children. Fishlow, for example, reports that in Brazil poor families have an average of 3.1 children while non-poor families have only 1.7.<sup>2</sup>

Many of these people classified as poor participate very marginally, if at all, in the market economy and, especially those living in rural areas and making up the bottom 20 percent, are little affected by most economic measures undertaken by the governments. Very little that the government does has any direct or significant impact on most of these people. This affirmation is of course not completely accurate with respect to the poor living in urban communities who do benefit from some health and welfare measures.

The people comprising this group constitute the so-called *marginados*. These are people who, for the most part, have so far not benefited in either a relative or an absolute sense from the development that has characterized the Latin American economies during the past couple of decades.

At the other end of the income distribution (say at the top 5 percent of the income pyramid) we normally find people who own considerable amount of tangible and/or human wealth and whose incomes are in many cases determined more by birth than by personal initiative or effort. The incomes and the consumption standards of the people in this group are comparable, on the average, to those which prevail in the developed countries. The *average* income for the group as a whole is approximately seven times the national average.

For a few countries for which this information is available, it appears that self-employed entrepreneurs and to a lesser extent the *rentistas* predominate in this group with incomes from wages and salaries playing a somewhat less important role. These entrepreneurs who head relatively small personal enterprises are generally involved in the production of services (commerce, professional services, etc.) rather than in agriculture or in industry or construction. Professionals are relatively important. Capital ownership (either tangible or intangible) is probably the most important factor in placing a person in this group.

Those who fall between these two groups, say between the 50th and the 95th percentile, constitute the "middle class" of the

<sup>2</sup> *Ibid.*

Latin American countries. This group is probably much less homogeneous than the other two including people who are relatively well-off and people who are relatively poor. Thus the term middle class must be interpreted in a very particular way. It includes the salaried people who work in the public sector or at least most of them, most of the wage earners in the modern manufacturing sector, some members of the *artisanía*, some members of the commercial and agricultural sector and some people engaged in personal services. All of these people have been integrated in the productive sector of the economy and though at times they may be under-employed and their productivity may be low, they are part of the market economy. Obviously, the composition of this group varies from country to country.

This group can be divided in two parts: the first is made up of the 15 percent below the richest 5 percent and the second is made up of the 30 percent above the median. Typically, the first of these receives about 30 percent of the total income and, thus, enjoys an *average* income that is about twice the national average. The second — i.e. the 30 percent above the median — receives about 25 percent of the total income and enjoys, thus, an *average* income below the national average. Both of these are made up of predominantly urban dwellers.

There is some information that indicates that the first of these two groups — that is the 15 percent below the richest 5 percent — may have benefitted rather substantially from the growth of the Latin American economies in recent years. The evidence on this is not all equally hard. As for hard evidence: in Mexico the share of income going to this group rose from 25.2 percent in 1950 to 29.8 in 1963. In El Salvador the increase was even more dramatic: the share rose from 17.4 in 1945-46 to 28.4 percent in 1961.<sup>3</sup>

### III. Redistributing Income Through the Budget

Budgetary policy can, in theory, bring about a more even income distribution (a) by either attempting to reduce the income of the better to do through progressive taxation, or (b) by trying

<sup>3</sup> The source for these data is the same as in Table 2.

to raise the income of those who are relatively poor through social-type expenditures (education, health, transfers, etc.), or (c) through a combination of the two.

### *The Role of Taxation*

Most of the empirical evidence available, and there is quite a bit of it, supports the conclusion that the tax systems of Latin America have done little to modify the existing income distribution.

Much of the statistical evidence available for Latin America has been recently surveyed by R.M. Bird and L. de Wulf.<sup>4</sup> After a lengthy discussion and analysis of the various studies available Bird and de Wulf conclude that "taxation in most Latin American countries appears to have done little to correct... inequality".<sup>5</sup> They reach this conclusion even though they are highly critical of some of the assumptions used in carrying out those studies.

The reasons for these results are rather obvious and they hardly need much elaboration. First, the tax burdens — with few exceptions such as Brazil, Chile, Argentina and Uruguay — are generally not too heavy so that even under the best of circumstances the ability of the tax systems to change significantly the distribution of income would be limited. Second, the predominance of indirect taxes and the limited use of capital and income taxes as well as the evasion or erosion of the latter, has almost inevitably made difficult the achievement of any redistributive power.

Of course, one can argue that the fact that the results turn out this way is more the fault of the governments than of the tax instrument. In theory at least, even though taxes cannot raise the incomes of the poor, they can surely reduce those of the rich. This could be achieved through a far more intensive taxation of wealth and through the progressive taxation of income.

Wealth taxes, land taxes and inheritance taxes can modify the distribution of income by reducing the income-earning capacity of

<sup>4</sup> R.M. BIRD and L. DE WULF, "Taxation and Income Distribution in Latin America: A Critical Review of Empirical Studies", I.M.F. DM/73/8. See in particular Table 2.

<sup>5</sup> *Ibid.*, p. 32.

those who own wealth. Unfortunately, there are generally very serious limitations to their applications. In fact, the importance of these taxes in most countries has been very limited, and it would seem utopian to expect that they will be capable of significantly modifying the distribution of income in Latin America. This should not be taken as an argument against their use. On the contrary every effort ought to be made to make greater use of these taxes. But, by the same token, nobody should expect too much.

A progressive and truly global income tax applied effectively for a long period of time could also be a very efficient instrument for income redistribution. But here too the experience with such a tax is not too encouraging. In fact, in most of the Latin American countries not more than two percent of GNP and generally much less than that is collected through personal income taxes. Furthermore, there is not much evidence that any appreciable change can be noticed in this respect. The problem with the application of this tax is that it is never, in practice, a truly global tax applied effectively; in most cases its burden falls most heavily on public employees and salaried peoples in large business concerns. These are the people who can be expected to react most strongly to any attempt at increasing the tax burden through the increase in income taxes. And these are people who are very influential in the decision making process of these countries.

Thus, as long as income taxation remains heavily schedular, *de facto* if not *de jure*, and as long as wealth taxation is not used to a far greater extent than it has been used up to now, taxation will not do much in reducing income inequalities. Hopefully, however, the governments of the Latin American countries should try to improve their tax systems by making them more efficient, more elastic and more equitable.

It is my feeling that the greatest benefits from tax reform in Latin America could be obtained more by trying to bring about horizontal equity than by pursuing the mirage of vertical equity. What the estimated effective tax rates by income size class do not show, in fact, is the tremendous dispersion around the estimated averages. When we read, for example that, in Colombia those with incomes between 25 and 80 thousand pesos paid, in 1966, an average tax rate of 15.4 while those with

incomes between 4 and 5 thousand pesos paid 13.4,<sup>6</sup> and we are told nothing about the dispersion around those averages, what does this tell us about the treatment of individual taxpayers? Very little if there is a lot of dispersion around those averages. In such case it is possible that some of the taxpayers in those income classes pay very low tax rates, while others, who for various reasons cannot escape the tax payment, may end up paying taxes which in relation to their income may be two or three times the estimated average tax rate. This is one of the main reasons why it is so difficult to do much on the tax side to improve the distribution of income. If the dispersion around the average increases as the average income of the income classes rises, as it seems very likely, then there is even less equity meaning that can be attached to the effective tax rates by income size class estimated in so many studies.

In any case, and quite apart from the problems encountered in enforcing an equitable tax system, it is obvious that lowering the income of the rich, even if this could be accomplished, will not automatically increase the share of total income going to the poor.

In Latin America progressive taxation cannot change the economic status of the poor. All that it can do is to reduce the income of the rich. It is often maintained in this connection that the progressive taxes should be coupled with progressive government expenditures so that not only the income of the rich is lowered but the *real* income of the poor is raised.

This brings us to the second approach to the problem of income redistribution. The question becomes: to what an extent can the expenditure side of the government budget be used to correct the distribution of income? It has become an article of faith in recent years that a combination of progressive taxation with the types of public expenditures which are supposed to aid the poor more than the rich — the types which are mentioned most often are health and education — would go a long way toward correcting the distribution of income in the developing countries.

Let us now turn our attention to public expenditure as it relates to income distribution.

<sup>6</sup> The data are from CHARLES McLURE, "The Incidence of Taxation in Colombia", *Fiscal Reform for Colombia*, Malcolm Gillis, ed., (Harvard University, 1971).

### *The Role of Public Expenditure: Statistical Evidence*

While there are quite a few studies which have attempted to estimate the incidence of taxation by income classes for several of the Latin American countries, there is still relatively little that has been done to estimate the incidence of public expenditure. This is indeed relatively virgin and largely uncharted territory. Even qualitative analyses are rare. Perhaps deterred by the formidable difficulties encountered in evaluating public expenditure, most fiscal economists have shied away from even attempting such evaluations. For this reason there are no generally accepted assumptions or approaches which one can use. Thus, the discussion that follows is somewhat speculative and, I am sure, it will not be accepted by everyone. I shall put particular emphasis on social-type expenditure, and particularly on education, since this is the type of public expenditure which is mentioned most often in connection with income redistribution.

As I stated at the beginning of this paper a program that would tend to rely on social-type expenditure to redistribute income must take the characteristics of the poor into account. If the poor are old and urban, there will be certain programs that will be more likely to be of use to them. Health expenditure, for example, is more likely, in this case, to be beneficial than, say, educational expenditure. If the poor are young and urban, the reverse is probably true. If the poor are predominantly urban but both old and young, then the government will be faced by a serious dilemma between equity and efficiency.

Income redistributions to the young have a higher probability of being "growth-efficient": they are in part investment. Redistributions to the old are pure transfers. If one is more concerned with growth than with equity, the emphasis in redistributing income would be toward the young. Thus education, child nutrition and other similar programs should be preferred to expenditure for "medicare", nursing homes, etc. In this situation the guiding principle would be: ignore those who are poor and old; concentrate on those who are poor and young.

But what about equity? Assuming that the trends which have characterized the developed countries will also be typical of the developing countries, the young are likely to be richer in the

future. Those who are old and poor may have always been very poor and it seems, thus, fair that they should be helped more than the young. This brief digression indicates sharply that the issue of income redistribution is not separate from that of growth. It also indicates the need for identifying the characteristics of the poor if specific policy objectives are to be pursued.

As pointed out in the first section of this paper, in Latin America the poor are predominantly rural, uneducated, often young, and at times they speak a different language and have racial characteristics which are different from those of the majority of their urban countrymen.

The fact that the poor of Latin America are often young and almost always uneducated would seem to provide an obvious argument in favor of increasing educational spending. However, the fact that they are predominately rural — and that often have a different linguistic and cultural background —, in conjunction with some institutional and social factors which will be discussed below, creates serious difficulties for this approach. Before we discuss these factors, however, let us look at some evidence now available from a few studies which have analyzed the impact of public expenditure in general and educational spending in particular on income distribution.

*Urrutia and Sandoval on Colombia:* In a study published in the *Revista del Banco de la Republica of Colombia*, Miguel Urrutia Montoya and Clara Elsa de Sandoval attempted to provide statistical estimates of the impact of the public sector on income distribution in Colombia for 1966.<sup>7</sup> On the basis of the results of the Musgrave's Mission concerning the incidence of various taxes, they concluded that the tax burden in Colombia is more or less proportional for the poorer 50 percent and insignificantly progressive from this level on except for a mild regressivity between 12,000 and 36,000 pesos.<sup>8</sup> The share of income going to the poorest half of the income units was 13.5 before tax and 13.9 after tax.

The effect of educational expenditure on income distribution is

<sup>7</sup> "Política Fiscal y Distribucion del Ingreso en Colombia", *Revista del Banco de la Republica*, July 1971.

<sup>8</sup> MUSGRAVE and GILLIS, *Fiscal Reform for Colombia* (Cambridge, 1971).

TABLE 3

IMPACT OF TAXES AND EDUCATIONAL EXPENDITURE ON INCOME  
DISTRIBUTION IN COLOMBIA, 1966

Population	Income		Income after taxes and education	Net change %
	Before tax	After tax		
Poorest 50% . . . . .	13.5	13.9	14.5	+ 1.0
Next 30% . . . . .	23.0	23.5	24.1	+ 1.1
Next 15% . . . . .	28.5	28.6	28.5	0.0
Top 5% . . . . .	35.0	34.0	32.9	- 2.1

Source: URRUTIA AND SANDOVAL, *op. cit.*

shown in Table 3 which has been adapted from the data in the article under discussion. If health had also been considered, the share of the poorest 50 percent would be 14.6, that of the next 30 percent would be 23.4, that of the next 15 percent would be 28.4 and finally that of the top five percent would be 33.7.

A general discussion of these results will follow the presentation of the statistical evidence for other countries. A comment made in the original study is worthy of mention at this point. The authors write that: "the statistics... overestimate the number of children in the primary public schools; this overestimates the participation of poor families in the public expenditure for education".<sup>9</sup>

Thus, it would seem that, in the case of Colombia educational spending has had little if any effect on income distribution. The same is true for expenditure for health.

*Jesus Puente Leyva on Monterey in Mexico:* Another good study on the effect of social-type public expenditure is that, by Jesus Puente Leyva for Monterey.<sup>10</sup> According to his estimates,

<sup>9</sup> *Ibid.*, footnote 7, p. 4.

<sup>10</sup> JESUS PUENTE LEYVA, *Distribucion y Redistribucion del Ingreso en el Area Metropolitana de Monterey* (Monterey: Universidad de Nuevo Leon, 1966).

the share of income going to the poorest half of the families before taxes and social-type public spending was 19.0. After taxes that share rose to 20.61. After taxes and government spending on education, health and welfare, the share of income going to the poorest half rose to 21.89. For the poorest 20 percent of the families the corresponding shares were: 5.75 before taxes and government spending, 6.09 after taxes and 6.91 after taxes and spending.

Of particular interest is the impact of the government on the families at the other hand of the income scale. In fact, while the top five percent experienced a negative percentage points change of 6.54 (from 31.23 before taxes and spending, to 24.69 after taxes and spending), the next 15 percent experienced an increase of 3.11 (from 24.61 before taxes and spending to 27.72 after taxes and public spending). It is thus obvious that even in a purely statistical sense, the public sector is helping the relatively poor only marginally while those who are getting the greatest benefits are those in the urban higher middle class who can take advantage of the public programs.

These results obtained by Puente Leyva refer to an urban area (Monterey) in a relatively developed state (Nuevo Leon). This is hardly a typical case. The state of Nuevo Leon has the second highest percentage of the school-age population in school: 78 percent for Nuevo Leon against 80 percent for the Distrito Federal. There are states such as Chiapas and Guanajuato for which this percentage is much lower (46 for Chiapas and 50 for Guanajuato). Nuevo Leon has also the second highest retention rate in primary school: 57 percent against a national average of 32 percent for 1964-69.<sup>11</sup> Thus one must wonder what kind of results one would get for Mexico as a whole.

*United Nations on Argentina:* Data on the impact of the public sector on the income distribution of Argentina are available in a United Nations study on Argentina.<sup>12</sup> Even in Argentina that is a highly urbanized country, has a long tradition of social-type spending, has a very advanced rural sector, and has a slow-growing and relatively homogeneous — both culturally and rac-

<sup>11</sup> These results are based on the Census of Population of 1970.

<sup>12</sup> UNITED NATIONS, *Economic Development and Income Distribution in Argentina* (New York, 1969). See especially Ch. IV. These data are based on Joint Tax Program (OAS/IDB/ECLA), "Estudio Sobre Política Fiscal en Argentina" (1963) (unpublished).



ially — population, the net effects of fiscal policy in general and public expenditure in particular are not overwhelming.

For Argentina the share of income going to the poorer half of the families was 23.4 before taxes; it rose to 23.9 after taxes and rose again to 25.9 after taxes and social-type spending. For the bottom 20 percent, it was 7.0 before taxes and public expenditure; it rose to 7.7 after adjustment for education, health and subsidies and rose to 8.3 after taxes and social-type spending.

To my knowledge the three studies mentioned above are the only published ones that have attempted to measure in detail the impact of public expenditure on income distribution in Latin America. These studies have tried to show the incidence of social-type public expenditure by deciles. A somewhat less detailed study which has done the same thing but by quartiles is that of Shane Hunt<sup>13</sup> for Peru. Hunt also concentrated on social-type expenditure (and particularly on education and health). By treating this as transfers received, i.e. as negative taxes, he came out with the following results:

QUARTILES

	I	II	III	IV
Best Estimate of Tax Incidence . .	19.5	17.4	20.6	16.9
Best Estimate of Total Budget Incidence (incl. education and health)	16.3	15.3	7.6	13.6

### *The Role of Public Expenditure: General Conclusions*

The previous section presented the results of four studies which have attempted to provide statistical estimates of the impact of public expenditure of a social type on the distribution of income. Those studies of course do not exhaust the information available in this respect but they are representative of a now-fashionable

<sup>13</sup> SHANE HUNT, "Distribution, Growth, and Government Economic Behavior in Peru" in GUSTAV RANIS, ed. *Government and Economic Development* (New Haven: Yale University Press, 1971).

formal approach to fiscal incidence. From those studies, and more particularly from scattered bits of less formal evidence available from many other sources, three basic conclusions can be drawn.

First, it appears that even the supposedly pro-poor social-type expenditure has little effect on income distribution. Second, the group that seems to be getting the greatest advantage from public spending is the urban middle class. Third, it is very unlikely that increasing public expenditure will bring about a better distribution of income unless such an expenditure is provided with a degree of selectivity which does not seem possible under present Latin American conditions.

These are rather depressing conclusions which seem to go counter to the general thinking that has prevailed in recent years. These conclusions can be easily defended with both theoretical arguments and empirical or factual evidence. But first I wish to raise the question of whether the results provided by the formal studies outlined in the previous section tell the full story or whether the method used introduces biases which distort the true picture. I believe that particularly with respect to education there is a distortion that makes the resulting picture look brighter than it is.

How are the *benefits* from educational spending allocated among income classes? Well, the truth of the matter is that those *benefits* are never allocated. What gets allocated is the cost. But costs may not be any indication of benefits and the fact that two children get the same cost imputed to them tells nothing about the benefits that they will derive from that experience. Below I shall argue that a child from the urban middle class is more likely to get a greater benefit from the same educational spending than one from the rural subsistence sector.

But even ignoring the problem of how benefits from a given expenditure relate to costs, there is still the less controversial problem of measuring actual costs. Typically the studies on expenditure incidence adjust for the proportion of children from each income class attending school but they do not adjust the differentials in costs. Urrutia and Sandoval, for example, take the total public educational spending for primary education, divide this by the total number of children in primary school and get an average expenditure per child in primary school. They then multiply this average by the number of children in each grade to

obtain the total expenditure by grade. Next, they allocate this total expenditure by grade on the basis of enrollment by income class. The assumption thus is that the same is spent per child regardless of grade and location.

Is this a realistic assumption? The evidence available does not support it. An exhaustive study by the Economic Commission for Latin America on education in Latin America reported that the "primary schools [of the rural marginal population] are... overcrowded and of poorer quality than those of other urban zones".<sup>14</sup> That particular study also stated that "gradually the geographical coverage of rural schools [has] expanded, but... these schools [have] remained pathetically ineffective copies of the first two or three grades of urban primary schools".<sup>15</sup> In general these are "one-teacher primary schools"<sup>16</sup> where the teacher is often not much more literate than the students.

In conclusion, if, as it seems likely, the expenditure per child in large urban areas and in the upper grades of primary schools is greater than that per child in lower grades and in rural areas, the results shown are overoptimistic about what educational spending has done even if one accepts the premise that costs are a good proxy for benefits.

A third problem which is related to the already mentioned issue of whether one can measure benefits by measuring costs is that associated with school retention rates. A child who spends a couple years in primary school and then drops out without having learned much or anything will have a "benefit" attributed to him when in fact his future economic opportunities will in no way be affected.<sup>17</sup> Obviously, this child has benefited much less than the child who graduates from primary school and receives a "paper" that will open many opportunities for him. As Table

<sup>14</sup> UNITED NATIONS, *Education, Human Resources and Development in Latin America* (New York, 1968) p. 75.

<sup>15</sup> *Ibid.*, p. 68.

<sup>16</sup> *Ibid.*, p. 71.

<sup>17</sup> A study dealing with education in Central America found that a full quarter of all children enrolling in primary schools dropped out before completing the first year of primary schooling. Retention rates for Costa Rica and Panama were reported to be much higher. These must have been predominantly poor children to whom the formal studies of expenditure incidence would have attributed parts of the "benefits" of educational spending. The study by OCEPLAN is cited in: UNITED NATIONS, *Economic Survey of Latin America*, 1970 (New York, 1972), p. 57.

TABLE 4  
RETENTION RATES IN PRIMARY EDUCATION FOR SELECTED LATIN  
AMERICAN COUNTRIES 1960-61 and 1966-67

(percentages)

Country	Urban	Rural	Total
Colombia . . . . .	47.3	3.7	27.3
Dominican Republic . . . . .	48.1	13.9	30.4
Guatemala . . . . .	49.6	3.5	25.3
Panama . . . . .	80.7	45.3	62.3

Source: UNESCO, *The Statistical Measurement of Educational Wasteage* (International Conference on Education, 1970).

4 makes clear, the probability of dropping out is different for poorer and richer children. The table relates to urban versus rural population but obviously it is equally applicable to a poorer versus richer classification.

A final point that I want to raise in connection with the results shown in the previous section is that those results ignore the effect that keeping a child in school may have on the standard of living of the family in the short run. In fact, the child will need books, clothing, and perhaps transportation. These expenditures are likely to be a greater proportion of the family income for poor families than for richer families; they will, thus, reduce the short-run standard of living of these families and make them poorer. The United Nations study cites "the incompatibility between family levels of living and extended schooling" as the "most obvious handicap" to poor children.<sup>18</sup>

Let us now return to the general conclusions stated above. These receive some support from the statistical evidence discussed in the previous section. However, even if such evidence were not available, it would be relatively easy to advance some rather

<sup>18</sup> *Ibid.*, p. 74.

strong reasons for them. At this point, it may be worthwhile to recall that up to now only the supposed pro-poor social-type public expenditure has been discussed. What if other types of public spending are considered? It should be obvious that the poor, and especially the rural poor who constitute the majority of them, do not get much in the way of benefits from these non-social type expenditures.

In my opinion, for developing countries, it does not make much sense to assume that the benefits from these expenditures can either (a) be distributed proportionally among families or even (b) that they can be distributed by income. Of course the first alternative makes them look quite progressive — i.e. pro-poor — and the more so the less even is the distribution of income, while the second alternative makes them proportional. Both of these assumptions, which might find some justification in developed countries under particular circumstances, are very unrealistic when made in countries with dualistic economies and a subsistence sector where the “marginados” have for all practical purposes no relation to the market economies of the large urban centers.

I frankly do not believe that it is at all possible to allocate these expenditures by income groups in any acceptable way and would not put much value in the results of studies that attempt such an impossible job. In any case if one is determined to do so there are other assumptions which are more realistic, than the ones used, within the context of the Latin American situation. In particular it would seem more reasonable to allocate this expenditure (a) either to families with relatively high incomes or (b) in relation to property or (c) in relation to those who benefit from the jobs created by this spending.

Of the four studies presented above, only the one by Urrutia and Sandoval on Colombia attempted to allocate these non-allocable public expenditures (defense, justice, police, international relations etc.). They tried two hypotheses: in one they allocated this expenditure to the richest 10 percent of the population on the basis of the assumption that those in this group hold much of the property and benefit the most; in the other they distributed this expenditure equally among the population. Obviously, the results reflect the assumptions made. With the first hypothesis, the poorest 50 percent of the population that, before taxes and

any public spending received 13.5 percent of total income, after taxes and all-type public spending received 14.4 percent. The share going to the top 5 percent fell from 35.0 to 31.83. That going to the 15 percent below the top five — i.e. the urban middle class — rose from 28.5 to 31.42, or by almost three percentage points. It is thus obvious that much of the redistribution that takes place under this more realistic hypothesis is from the rich to the relatively rich — from the top 5 to the next 15 percent. The increase in the share of the poorer 50 percent is relatively modest.

It is only under the very unrealistic second hypothesis that much of the loss of the rich — from 35.0 to 30.5 percent for the top five — becomes a gain of the poor — from 13.5 to 17.8 percent for the poorer half of the population. In this case the 15 percent below the top five register a very mild decrease in their income — from 28.5 to 27.4 percent.

We can now outline the model implicit in the analysis followed throughout this paper; it is the model which, together with the empirical evidence, has led to the reaching of the three conclusions stated at the beginning of this section. This is a model in which educational spending and government jobs play a rather prominent role and in which redistribution does take place but it is not from the rich to the poor but from the rich to the relatively rich; or, to give a quantitative dimension to this statement, from those in the few top percentiles of the income distribution to those in the next 10 to 20 percentiles below them. The model can be sketched here only in broad terms since it would take too long to describe it in detail. Also much more work would be required to substantiate it fully. Its main outline is as follows:

The poor and the relatively poor — those that we have called “marginados” — have characteristics that prevent them from taking full advantage of much of the public expenditure receiving full benefit from it. They are often geographically dispersed and socially and culturally alienated from the large urban centers; they may even speak a different language. All this, together with the fact that most public spending takes place in urban areas, means that the “marginados” will not be much helped by most public expenditure. Of course one can

always find particular programs that have helped the very poor. In general, however, the conclusion reached here is most likely true.

At the other hand of the scale we find the rich who do get substantial benefits from various types of public expenditures. They, however, are likely to send their children to private schools and to use private health facilities; in addition they will not be found in large numbers in government jobs. The relatively few who will work for the government will hold the few prestigious jobs at the very top. In spite of the lack of marked progressivity in the tax systems of these countries, this group generally pays higher average tax rates than the rest of the population. The consequence of all this is that the total impact of the public sector on this group is to reduce its share of total income. Of course, this reduction is likely to be higher in some countries than in others.

It follows that those who will get the greatest advantage from the redistribution function of the public sector are those belonging to the urban middle class. These are the ones who benefit the most from many types of public spending and especially from education. They are the ones who have fought for higher education, for better health services, for expanded social security, for public housing, etc. In particular these are the ones who have used the education that they received in public schools for getting the government jobs that their own pressure helped to create.<sup>19</sup> And these may also be the ones who pay the lowest tax rates.<sup>20</sup>

There is still one additional and final point that I think deserves particular attention. The formal studies of the effect of public expenditure on income distribution identify the output with the cost of a public service and allocate this cost by income classes. Here again we may be misled by a procedure that is probably valid in developed countries (or at least in some of them) but which is not in Latin America.

There are two elements which ought to be considered. First, is the tremendous inefficiency found in the public sector which often implies that the marginal productivity of a government worker may be zero or at least very low. In other words often

<sup>19</sup> This particular thesis has received considerable support in many studies. See particularly: SHANE HUNT, *op. cit.*, UNITED NATIONS, *Education Human Resources and Development in Latin America* (New York: 1968) especially pp. 59-62; OSCAR ARIAS SANCHEZ, *Grupos de Presion en Costa Rica* (San José: Editorial Costa Rica, 1971).

<sup>20</sup> See BIRD and DE WULF, *op. cit.*

higher public expenditure may only create more jobs without any effect on the output. Second, is the fact that often the public worker's only option to a government job is unemployment or a far less-paying private job.

The net result of this is that jobs in the public sector are like lottery prizes where the ticket to enter is a school certificate. This is clearly proven by the educational content of government jobs; very rarely do these go to people with no education. For example in Argentina only 1.2 percent of government jobs go to people without education and only 28 percent go to those who do not have a certificate from primary school.<sup>21</sup> In Brazil, in 1966 about 35 percent of those in the labor force did not have any education, but only 11.9 of those working for the federal government.<sup>22</sup>

Thus the general conclusion of this paper is that if the public sector is redistributing income in Latin America, it is from the very rich to those who are not relatively poor. Most of the really poor are not getting much of an advantage. In fact, the results of the formal studies, for some of the reasons discussed in this paper, are likely to be too optimistic. If instead of allocating costs one truly allocated benefits, the poor would fare much less well and the urban middle class much better.

This conclusion implies that advocating policies that increase public expenditure without increasing its selectivity may only continue or even aggravate the present redistributive process. It is necessary that we find out much more about the characteristics of the poor and that, consequently, we give to public expenditure the selectivity that will make it an efficient tool for redistribution. Increasing public expenditure under present circumstances will simply not do.

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<sup>21</sup> See: CAMARA DE SOCIEDADES ANONIMAS, *Relevamiento del Numero y Condiciones de los Empleados Publicos* (Buenos Aires, 1969).

<sup>22</sup> I.B.G.E., *Censo dos Servidores Publicos Civis Federais* (Brazil, 1966).