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DOCUMENTO DE TRABAJO

Núm. IX - 1987

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El Colegio de Mexico
July, 1987

i. Introduction

As it can be observed in Chapter III.1 income (and wealth) in Mexico are very unequally distributed. Moreover, no substantial changes have occurred during the last thirty years. Sustained economic growth was not accompanied by a more homogeneous distribution of its benefits.

To the problem of inequality one should add the presence of poverty. According to the last income expenditure survey available (Secretaría de Programación y Presupuesto, 1979), in 1977 around 35% of the households earned a total income (including imputed income from autoconsumption) below the prevailing minimum wage. Considering the level attained by the minimum wage at the end of the nineteen seventies (around U$ 117 per month), one could say that around 35% of the households were below the "poverty line".

With this background in mind, the question as to what extent has goverment intervention contributed to ameliorate the problems of inequality and poverty acquires utmost relevancy. Such a task is very complex considering that the areas of government intervention are so diverse and its effects so multidirectional and often indirect (and in many cases so debatable when examined ex post).

In Mexico governments actions that affect the distribution of

income and wealth and the living standards of the population can range from standard welfare policies (i.e., expenditure on public education, health, and social security, subsidies on basic goods, etc.), price and wage regulation, public participation in production and distribution of goods and services of various sorts, trade and industrialization policies and, of course, political decisions that affect the rules of the game in terms of property ownership rights (like the expropriation of land holdings and the nationalization of the oil companies in the 1930's and the banks in 1982, for example). In addition, income distribution is affected by the general characteristics of macroeconomic management (the size of the public deficit and how it is financed, the setting of minimum wages, the rate of interest and the exchange rate, monetary and credit policy, etc.).

In this chapter we will analyze the evolution of the structure of government non-transfer expenditures. In particular, we are interested in the expenditures on social development (namely, education and health) but we will also look at housing policy and food subsidies. Whenever the data is available, we will attempt to assess the distributive impact of the particular form of intervention.

ii. Evolution of the composition of public expenditure since the 1920's

In order to carry out an analysis of the structure of government expenditures we have classified them in the standard

three categories used by other authors (see Wilkie, 1978, p. 46): namely, economic, social and administrative outlays. In Table 1 we present the list of items contained in each category. As we can see in this table, expenditures on social development include, mainly, education, health and social security, that is they include the fundamental items of expenditure on social welfare, with the exception of food subsidies (which are included in the commerce sector of the economic category).

In Tables 2.a, 2.b and 2.c we present the evolution of the shares of these three categories for several periods of the Mexican post-revolutionary era. Perhaps one should introduce here a note of caution. Given that over time many public agencies that used to be "autonomous" in the budgetary sense were incorporated into the central budget, itertemporal comparisons are not always straightforward. For example, in 1972 and 1973 an addition of 25 agencies was made to the central budget of the Cuenta de la Hacienda Pública Federal (see Wilkie, 1978, p. 525). To illustrate how the inclusion of these agencies may affect the structure of public outlays in Table 2.d we present the same shares that appear in Table 2.b but calculated with the definition of public expenditures that include these 25 agencies. Notice how the proportion spent on education and health, for example, falls, and how that on social security rises (the latter occurs because among the 25 agencies are the two major social security institutions, that is, IMSS and ISSSTE).

Between 1917 and 1934, that is figth after the Constitution was promulgated (and before the era of political stability which begun with Cardenas), the largest share of government outlays

went to administration and defence, with social development comprising between 10 and 15 percent of total outlays (Table 2.a). Under the regime of Cardenas (1935-1940), characterized by an explicit leftist ideology, spending on social development was increased reaching an average of 18.3%, and so was spending in the economic area reflecting the strong incentives given to agriculture and the large investments in infrastructure.

After the Cardenas' administration there were three sexenios in which the main emphasis of public spending was in the economic category and the share of outlays on social development went down to 14.7% as an average for the 18 year period (the presidencies of Avila Camacho, Aleman and Ruiz Cortines).

It was not until the presidency of Lopez Mateos (1959-1964) that social development was given relative priority. This continued during Diaz Ordaz' administration, and considering both periods the share of expenditures allocated to social development increased to around 20 percent. The highest levels were reached during the first years of Echeverria's presidency (1971-1976) when the government made a commitment to integrate into the political and social scene large portions of the previously neglected population (Table 2.c).

During the oil boom, between 1978 and 1981, the share going to social expenditure went down again reaching 17% of total expenditures, and most government spending -not surprisingly given the huge investments made in the sphere of oil, electricity and steel production- was concentrated in the economic category (Table 2.c).

After the upsurgence of the crisis in 1982 the structure of government spending underwent a major change of emphasis again. The share of social development outlays shrunk to the lowest levels since 1934 and so did the economic outlays; the share going to administrative expenditures, on the contrary, reached its peak (Table 2.c). This is a reflection of the burden imposed by huge interest payments on the enlarged public (foreign and domestic debt) when at the same time the government had to reduce its total outlays considerably given the goals established in its adjustment program.

Independently of the oscillations observed in the share of social development expenditures, its per capita level rose (more or less) steadily from the 1920's onwards from an average of 5.4 constant per capita pesos in the period of Obregon to 93.1, (or 200 pesos), in 1970, (depending on which definition of public expenditure is used; the 200 figure includes the 25 additional agencies among which are the two largest social security institutions which also provide a large proportion of public health services) (see Table 3.a). Here, as it was mentioned before, we encounter the problem of comparability arising from the changes in the definition of total public expenditure.

During Echëverria's presidency (1971-1976), the expansion of expenditure on social development in per capita terms continued at a high pace (around 60% for the six year period taken as a whole). Paradoxically, during the years of the oil boom, when Mexico was favored by the substantial rise in the price of oil, spending on social development slowed down to around 20 percent for the period 1977-1982 taken together (Table 3.b).

What was the impact of this continues expansion (up to the 1982 crisis) of expenditures on social development measured --let us say-- in terms of some global standard indicators? From Table 4 one could conclude that outlays oriented to social goals have had a positive impact on the quality of life of the Mexican population. This can be inferred from the performance of the illiteracy rate, the infant mortality rate and the proportion of serviced households (though no explicit causal link can be made in terms of the gains in social welfare per peso spent in social development).

Nonetheless, in spite of the undeniable improvements in the quality of life of the population at large, at the end of the 1970's there were many unsolved gaps. For example, it has been estimated that in 1979 around 13 million Mexicans were undernourished (Instituto Nacional de la Nutricion, 1979); that the infant mortality rate was above that in other countries with lower per capita incomes (such as Malaysia and Paraguay, for example); that in 1978 around 45% of the population did not have access to free (or quasi free) health services; that in 1980 around 22 million Mexicans of 14 years of age or over were either illiterate or had not completed primary school; and that, for the same year, around 22.3% of the dwellings were not serviced at all and around 50% had no drinkable water. (Lustig, 1986, from various sources)

Since the 1982 crisis, and especially after the implementation of the 1983 De la Madrid's adjustment program, government spending (with the exception of interest payments) has

been subject to major cuts, including the area of social development. As we can see in Table 3.b in per capita terms they fell for the first time in around 50 years resulting in that average per capita spending on social development for the 1983-85 period was 21% smaller than the average for the 1977-82 period. It is very hard to estimate the impact of such a decline on the welfare level of the population especially because a large portion of this contraction is explained by the fall in real wages of the personnel working in goverment agencies in the area of education and health and also by a fall in investment in these sectors. This means that the effects (which presumably should be negative) are not felt in the short-run but will find their course over time.

Before we turn to examine in more detail the characteristics of the various components of expenditure on social development, we will briefly analyze the composition of the economic and administrative categories of expenditure. Regarding the latter it is noteworthy that expenditures on defence, especially in comparison to other countries in Latin America, at present take up a small share of public outlays. In addition defence expenditures have lost relative importance over time: for example, in the 1920's they absorbed well over 30% of total government outlays, in 1940 the share was larger than those going to education or to health, whereas in the 1970's they were below 2% (see the data given by Wilkie, op. cit., pp. 135 and 527). According to the World Bank, in 1981 Mexico had the lowest share for military spending of all the major Latin American countries (see Ward, 1986, p. 8). Though defence has lost ground

in relative terms it has kept its real value in per capita terms since the mid-forties.

On the other hand, interest payments have steadily grown in importance within administrative expenses; this has reached unacceptable levels after the upsurge of the debt crisis in 1982; for example, for the period 1983-1985 interest payments represented around 38 percent of total government expenditures whereas during the more or less the previous 50 years they absorbed between 10 and 20 percent of the total (with the exception of some years during Lopez Mateos' administration). (Since the 1982 crisis it would seem that the government deficit has fallen in what for economic orthodoxy is a reversed causality: namely, the higher the inflation rate, the higher the (nominal) public deficit because the (nominal) interest rate must be tied to the rate of inflation if capital flight is to be avoided). It is also interesting to note that during practically the entire period from Cardenas to Diaz Ordaz, interest payments in the programmed budget were always short of actual payments; this difference explains why planned administrative expenditures were short of the actual ones and why social development spending in planning always overestimated its importance in practice (Wilkie, op. cit., pp. 141 and 354).

Concerning expenditures in the economic category, one can observe that the emphasis has shifted away from agriculture and infrastructure (in the thirties, forties and fifties), to industry, commerce and energy (in the sixties and seventies) (Table 5). However, the numbers on Table 5 are not strictly

comparable because before the 1970's a large proportion of investment was put in the "other expenditures" category regardless of its destination. Tranfers to CONASUPO, the government agency in charge of administering the major food subsidies are included in the category of economic expenditures.

Looking at the allocation of public spending by type , in Table 6 one can observe that during the nineteen seventies public spending on capital (which includes physical and financial investment) increased from around 20 % in 1965 to around 30%. This is associated with a more vigorous participation of the government in the productive sphere especially in the areas of steel and transport and communications in the first half of the 1970's and in oil and petroleum derivatives in the second half.

Within current expenditures the share absorbed by wages and salaries (which includes payments to the bureaucracy and to other state employees such as teachers, doctors, etc.) declined in the nineteen seventies while the shares going to interest payments, transfers and participations to states and municipalities rose. Regarding the direct impact of government intervention (that is ignoring whatever multiplier or recessive effects it may have and how they are distributed over time) on income distribution there is --to my knowledge-- only one piece of research which attempted to calculate it (Reyes Heroles, 1976). Using the 1968 Income Expenditure Survey, Reyes Heroles concludes that the incidence of net government intervention (that is, expenditures net of taxes) has a positive, but quite small, effect on equality: the Gini coefficient changes from a value of .58 to .568 after government intervention is considered; or, using another

indicator, whereas before government intervention the bottom 14% of the population received .73% of total family income, after the intervention this group received .91% (Table 7).

Independently of all the measurement problems that are involved in such an exercise (and the fact that it is a single observation), the results are quite discouraging, if the presumption is that one of the major government's concern is to cut the slices of the Mexican pie with more fairness and justice than would occur without its intervention. (Of course, here we are just measuring the impact of government intervention involving material resources, not in its legal or regulatory forms).

Using Reyes Heroles' data here we have calculated the distribution of total expenditures net of total revenues corresponding to each income strata to get an estimate of how total government resources are allocated. A "progressive" government should allocate more resources to the poor and --to the extent that the size of the public deficit after a certain level may have negative consequences on the overall economic performance-- should finance these transfers by taxing the rich. Nonetheless, the situation depicted in Table 8 indicates that the main direct beneficiaries of the public deficit are the "rich": i.e., the highest stratum, which comprises around 2 percent of the population, receives around 16 percent of the difference between expenditures and revenues. On the other end, the bottom 12 percent receives close to that, and the bottom fifty five percent gets 43.5 percent. As it was mentioned in Chapter III.5,

this measure is as important as the incidence calculation since, when we are at very low levels of income, a high incidence may turn out to be quite meaningless when compared with the amount of resources devoted to the low income groups as a proportion of the total.

iii. Expenditure on education

Before the outburst of the Mexican Revolution, education was a scarce commodity restricted to few urban centers. There was no national university and only a few schools of professional training existed (medicine, law and engineering). Those who wanted to get modern training had to go abroad and according to some estimates in 1910 there were only 12,000 schools with about one million students enrolled when total population of the country was around 15 million.

Since the promulgation of the 1917 Constitution of Mexico access to free education is a constitutional right. In article 3 of the Constitution it was established that primary school was to be compulsory and that education in general was to be lay and humanistic and it was to induce a nationalistic and democratic spirit. It was also said that all education given by the State was to be free and that private educational institutions would have to require authorization to offer primary and secondary schooling. Thus, from the time the Constitution was promulgated the Mexican state committed itself to provide the resources to educate the population.

However, in spite of the high growth rates of the formal and informal educational systems during the post revolutionary

period, it was estimated that in 1970 "the average length of education of the labour force was 3.5 years, 27 per cent of the labour force had not had any schooling, 30 per cent had completed only one to three years of primary education, 30 per cent had completed four to six years, and only 10 per cent had gone beyond primary education" (Urquidi, 1982, p. 116). This situation improved somewhat in 1980: according to the Census of that year only 12% of the labor force (estimated at 22 million) had no schooling and the percentage which had gone beyond primary school had risen to 24%. Nonetheless, the Census also indicates that there are in Mexico between 6 and 8 million people who do not read or write (between 13 and 21 percent of the population over fourteen) and around 15 million who have not completed primary school (Padua, 1984).

Among other factors, these last numbers are the result of the high rate of population growth (which was close to 3.5 per cent for many years and which made difficult for supply of schooling to keep up with increasing demand), the relatively high weight of rural population (estimated to be around 40 per cent of the total), and the proportion of the population that lives in locations that are very small in size and isolated and, thus, are very hard to reach. (It is estimated that around 30 per cent of the total population lives in localities of less than 1,000 inhabitants; Urquidi, 1982, p. 115). But the deficiencies in quantity and quality of the educational system may also be the result of erroneous emphases in educational policy at different stages. Moreover, one should not undermine the role played by

poverty itself; especially in rural areas where child labor may be important schooling is a luxury that many families cannot afford (and even though primary school is compulsory there are parents who do not send their children to school). In addition, though education is free and so are many of the basic textbooks, there are other complementary (and compulsory) expenditures on uniforms, notebooks, pencils, dresses for national festivities, etc., and transportation costs that cannot easily be met by low income families and which may influence on the schooling level of their children. Reasons like the latter may well explain the high rate of drop-outs especially in the rural areas.

Government spending on education expanded in the 1920's when Jose Vasconcelos, a prominent political and intellectual figure in the Revolution highly concerned with the modernization of Mexico, was Minister of Education. During Cardenas' government another push was given to education (including physical education) as it can be seen in Table 9. During the period 1920-1940, a large emphasis was given to education in rural areas. According to Nash (1965) "..A great deal of money was spent on the rural schools and Cultural Missions, but many problems limited the benefits of this investment: diseconomies of small scale institutions, a completely inadequate supply of qualified teachers, and low rates of retention and graduation. The investment was not, in the end, sufficient to raise primary education ... to the levels already attained in the advanced regions. The money invested in these regions was used more efficiently, and systems of formal education dating back to the Diaz era were rapidly expanded. Since 1940, a larger proportion

of federal investment has gone to advanced regions ..., in short, (it) has followed the opportunities for highest return." (Nash, 1965, p. 140). Also because these regions were more advanced they could also invest more from local sources, and thus the availability of educational resources was influenced by and, in turn, reinforced the prevailing regional economic and social inequality.

In the 1940's the share allotted to education as a percentage of GDP and of total federal government expenditures declined (Table 9) reflecting perhaps the change of ideology that took place after Cardenas finished his term. Avila Camacho and Aleman are presidents who have been considered to have a strong orientation for "modernization" in the more capitalistic sense. This meant that government resources were used more for economic outlays and in the richer regions of the country. The tendency was slightly reversed by Ruiz Cortines in terms of the resources devoted to education; however, it is not until Lopez Mateos (1959-1964), when educational policy became a serious concern as a result, it seems, of the pressure put on the system by popular (unmet) demand. This gave rise to the ellaboration of a long-term plan for primary education, which became known as the "Eleven year plan" designed by Jaime Torres Bodet, then Minister of Education. This plan included new projections of demand and the number of schools and trained teachers required to meet this demand and resulted in an increase in the budget allocations for education (Table 9) with the aid of a 1% tax on payrolls. It was also in this period (1960 to be precise) that the distribution of

free textbooks to primary students begun. According to some estimates by 1962 more than 56 million copies had been distributed and they were available in all primary schools of the country; one of the main problems with these first edition of free textboocks was their strong urban bias which made achievement of literacy in rural areas more difficult. (Nash, 1965, pp. 53 and 54)

In spite of the great effort to expand education in this period, it was so concentrated on developing primary school that by the mid sixties, it seems, the system was again under pressure as the inadequacies of secondary and higher education became evident. Thus, during Diaz Ordaz' presidency resources devoted to education were expanded further, though the concentration remained at the primary and secondary level and it was not until Echeverria when strong emphasis was put in the development of technical schools and of higher education and a further expansion in resources allocated to education took place (Table 9). Also, during Echeverria, and in spite of a lot of opposition arising from the public (especially the more conservative middle classes of the Northern States) and the teaching profession, a new set of free textbooks was ellaborated.

Druing the oil-boom years (1978-1981), when Lopez Portillo was president the share allocated to education begun to decline (Table 9) as a result of the enormous expansion of government investment in the area of energy in particular. The per capita amount spent on education, however, continued to rise (see Samaniego, 1986, Table 18). Including this period, the portion of total (public) expenditure allocated to education as a share

of GDP was still below the 4% minimum recommended by UNESCO in 1962.

Since the 1982 crisis both the share and the absolute per capita expenditure on education has declined (see Lustig, 1987 and Samaniego, 1986). In 1983 the per capita spending on education declined by 37.6% and the level reached in 1985 was slightly below that of 1978. As it was mentioned above it is hard to see what are the effects of this crunch in educational spending in such a short period of time. An educated guess may be that the quality of teachers (given the further erosion in their real wages) will decrease over time and that the absence of new investment will be reflected in shortages and deterioration of existing infrastructure in the future, let alone that many of the accumulated deficiencies from the past cannot be corrected.

In terms of resource absorption primary school has been relatively favored over post primary, though its share has been declining. For example, in 1969 primary schooling absorbed 58.7% of the total allocated to formal education whereas in 1978 this share was equal to 52.4% (COPLAMAR, 1982, P. 63). However, one dilemma that has not been cleared out for policy makers (and that given the present budgetary restrictions it becomes even more relevant) is whether to allocate the efforts towards improving the system at the bottom in such a way that in a few years time the entire population reaches a minimum level of education, or to concentrate resources more in the improvement of the quality of higher and technical education where for many authors (see, for example, Urquidi, 1982) lie the major bottlenecks of the Mexican

educational system. The impact of either strategy on inequality, poverty and overall productivity may be quite different and the trade offs are not clear.

To make an assessment about the evolution of the "quality" of the educational system two possible indicators (and by no means sufficient) are the student/teacher and student/school ratios. At the level of primary school it can be observed that between 1950 and 1960 the student-teacher ratio rose and afterwards it continuously declined reaching the size of 33.6 students per teacher in 1985 (Table 10). (The estimate for this year, however, comes from a different source and, thus, it may not be comparable).

At the secondary and higher levels the tendency has been a rising student-teacher ratio as enrolment increased over time (Table 10). The numbers for 1950 are so small to make one wonder as to their reliability; there may have been measurement problems when the data was collected or when it was reconstructed afterwards. The size of the ratio for the other years is not large by international standards (see Aspe and Beristain, 1984, Table 10.28, for example) and thus one could consider that students are able to get adequate levels of attention by their teachers. The student/school ratio has followed an analogous pattern declining for the lower levels and increasing for the higher levels of educatio (Table 11). At the primary school level the ratio is higher for Mexico than for Argentina or Brazil but substantially lower than that for the United States or Japan (ibid.). However, such comparisons have the problem that what is called a "school" is not a standardized unit.

Schooling services can be provided by the federal, the state, or municipal governments or they can be provided by autonomous institutions (though government funded) or by private institutions. For the period 1970-1978 at the primary and secondary level the largest proportion of enrolled students corresponds to federal schools; at the baccalaureate, the largest share corresponds to state and autonomous institutions (COPLAMAR, op. cit., p. 18).

The participation of private schools at each educational level can be observed in Table 12. The share of private schools in terms of student enrolment is small at the primary school level (7.8% of all enrolled children went to private schools in 1970) and relatively large at the medium level (junior and senior high school equivalents) where around 28% of all students went to private schools in 1970. Over time, and assuming that the two observations that we have are comparable (1970 and 1985), the share of students who go to private schools has declined at all levels except at the university level in which there is a slight increase: in 1970 the share was equal to 14% and in 1985 it equalled 15.8%. Also with the exception of the university level, most students attend federal schools that depend directly on the Ministry of Education; at the university level the presence of state or autonomous institutions (which receive public funding but are run independently of the government) is very large.

Federal elementary schooling is provided through different types of services. Alongside the regular primary school coexist other forms that are either incomplete in terms of the years of

schooling they offer or service simultaneously groups of different grades. There are, as well, itinerant schools that give service to areas of very scant population, "albergues" that try to absorb children from isolated communities by giving them food and shelter in addition to schooling and other forms of community schooling services. It was estimated that in the 1970's over 13% of total enrolment in primary school went to this kind of schools especially to those which did not have the complete cycle. This group of population will hardly be able to finish their primary education since they are, in the majority of cases, people who live in isolated areas. (COPLAMAR, op. cit., pp. 18 and 19)

In addition to the formal education there exists also what is called "non formal" education which includes education for adults (people over fifteen years of age), development of indian communities, recreation and sports, etc.. The share of resources absorbed by this non-formal education has risen from 24% in 1969 to 38% in 1978 (COPLAMAR, op. cit., p. 63). Programs for adult education, however, were not given high priority. Until 1980 the most important program was subject to a pilot experiment in twenty rural and semiurban localities. In 1981 a literacy campaign was launched and the Institute for Adult Education was created; however, the most important measure in this area undertaken during this period was the Law of Schooling and Training which obliges employers to teach and train their workers. (COPLAMAR, op. cit., p. 66) It is not clear to what extent this law has actually been enforced.

Though primary public education is unrestricted and free,

there exist within the public system (and outside of it in private institutions) important differences in the quality of education and in the conditions provided to finish the schooling cycle. This is reflected in variations in the internal efficiency of the system (i.e., the rate of drop-outs and reprobation or repetition of grades and the proportion of students who complete a cycle) as well as in the external efficiency (i.e., the degree of qualification with which students are equipped to face a productive, social and political responsibility).

One example of how the educational system has contributed to the reproduction of unequal opportunities is the distribution of schools which do not offer the complete cycle. In rural areas (defined as those having less than 2500 inhabitants) it was estimated that in 1973 around 75% of all primary schools were incomplete in this sense; in urban areas the proportion was 10%. Moreover, the ratio of complete to incomplete schools in the rural areas is higher in the richer Northern states and the Federal District (see the absolute numbers provided in Aspe and Beristain, op. cit., Table 10.16).

Student enrolment at all levels has risen over time (see Table 9 and COPLAMAR, op. cit., Tables 3.11 and 3.14). The meeting of total educational demand has also increased from 53% in 1971-72 to 72% in 1981-82 (Aspe and Beristain, op. cit., Table 10.10). In the 1970's it seems that efforts were made to reduce the variance among states in terms of meeting their demand for primary education since the largest increases occurred in those

states that had the lowest indeces (and which are in general the poorest states such as Chiapas, Guerrero, Oaxaca, etc.) (see the indeces in Aspe and Beristain, op. cit., Table 10.14).

According to the last official estimates the service index for primary school (i.e., number of enrolled children as a proportion of the population between 6 and 14 years of age) reached 98% in 1980, a substantial increase from the 38.1% estimated for 1930 (Padua, op. cit.). However, this sort of indicator, independently of the problems associated to the accuracy with which it is measured, is quite misleading. For example, considering the problems of drop-outs and repetition or reprobation of grades, it turns out that about only half (48%) of the children that start primary school actually complete it (Padua, op. cit.).

The relationship between education and inequality has been a subject of concern for social scientists, humanitarians, and politicians alike. In standard neoclassical economics it is presumed that education is the way in which those who have no access to physical capital can defend themselves in the market place by acquiring human capital. However, this is true insofar the accumulation of human capital allows his or her owner to apropriate a quasi rent on his or her scarce skill. When improvement is massive then the possibility to apropriate this quasi rent vanishes. What may be true is that a more uniform education reduces inequality within labor income but not necessarily between the latter and income from capital, for example.

In one research carried out for Mexico that addresses this

kind of question it was found that education may be a sufficient but not a necessary condition to be in the upper deciles of income (Diez Canedo y Vera, 1982). For example, it was found that the probability to find someone without instruction in the highest decile was only slighltly lower than the probability to find someone with a university degree; and that for someone who has completed primary school the probability to be placed in the higher deciles is larger than the probability to be placed in the lower ones. As it would be expected it was found that for wage earners there was a clear and positive relation between years of instruction and income and that there was an important premium given to the completion of cycles (which presumably reflects the fact that education is used by employers as a signaling device or "proxy" for higher productivity).

On the other hand, in the case of the self-employed and the employers, schooling was not statistically relevant in explaining the level of income. These results support the view that for wage-earners access to education and the possibility to complete the schooling cycles are important to ensure a higher standard of living. Thus, for the poor self employed and the poor employers to become an "educated" wage earner may be the most accessible way to move up in the social ladder. This is true, of course, for the individual (i.e., a marginal change); a different situation may arise if this occurs massively since then the characteristics of labor supply and labor demand would (or could) drastically change.

According to the study done by Reyes Heroles (mentioned

above) the incidence of government expenditure in education is progressive at the primary level, though somewhat regressive at the high school and higher levels (Table 13). If what was found by Diez Canedo and Vera reflects reality with accuracy, then the government should make special efforts in improving the incidence of expenditure on higher education so that the poorer sectors of the population could also get part of the premium obtained from completing a cycle or acquiring more years of instruction. Since the limitations for completing school cycles or pursuing a higher (or technical) degree are linked, in general, to the economic conditions of the lower income families, such a task would require the implementation of a skilfully administered and targetted scholarship system.

iv. Expenditures on Health

The concern for health related aspects on the part of the government before, and in the period immediately after the Mexican Revolution, was concentrated on the provision of non personal services such as regulating the supply of some food products (milk, for example), the provision of drinkable water, the fight against diseases such as the rabies, etc.

In 1917 the Department of Public Health was founded but its role was quite deficient (COPLAMAR, 1982, vol. 4, p.116). Until the administration of Cárdenas (1934-1940) public health services were concentrated in the area of fiscal and punitive aspects, whereas the areas of prevention and education were overlooked (COPLAMAR, op. cit., p. 117).

During Cardenas' government several important measures were

taken, among them the creation of the Ministry of Welfare in 1937 and the creation of an institution to provide public and medical health services to the rural areas. Also under the Cardenas administration the students of medicine had to provide free service to rural areas as part of their curriculum (what is called the "social service") (COPLAMAR, op. cit., p. 117)

In terms of resources, the share going to health and welfare more than doubled during Cardenas' administration (reaching 6.4 percent of government expenditure) and in per capita terms it was more than three times higher than its level during the governments that preceded him (see Wilkie, op. cit., p. 199 and Table 14).

In spite of the interest on the part of Cardenas to pass a social security law, as discussed in Chapter III.5, it was not until the beginning of 1943 (under Avila Camacho) when this law was enacted. This gave birth to the Mexican Institute of Social Security (IMSS), which provides services to employees and self-employed within the private sector and which began to operate in the area of health in 1944 (at first only in the Federal District; see for more details Chapter III.5). Also, during the government of Avila Camacho the Ministry of Health and Welfare was created from the fusion of the two existing previous institutions; several hospitals and specialized institutes were founded; the flexnerian scheme (in-hospital residence) was introduced in medical schools; etc. The amount of resources devoted to the area of health and welfare, however, shrunk in relative as well as in per capita terms starting in 1944 (Table

14).

At the end of Avila Camacho's period the share allocated to health was around 4 percent of total government expenditure. This level was sustained during Aleman's presidency (1947-1952) and during the administration of Ruiz Cortinez' (1953-1958) the share allocated to health was even lower; moreover, in per capita terms the level spent on health was lower than that spent by Cardenas (Table 14).

In 1959, when Lopez Mateos became president, the state-employees pension office was transformed into the Institute of Social Services and Security for State Employees (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, ISSSTE) (COPLAMAR, op. cit., vol. 4). This institute together with IMSS conform the two major agencies in charge of providing social security and health services to the insured population (see the discussion in Chapter III.5). During the Lopez Mateos government the share allocated to health and welfare rose again and in per capita terms the level surpassed that spent during the government of Cardenas (Table 14).

Also, in the early sixties the government began its massive vaccination programs against polio, diphteria, and other infectious diseases and in 1970 against measles. These campaigns resulted in a decline in mortality rates associated to them (COPLAMAR, op. cit., p. 92).

The government of Diaz Ordaz apparently was not marked by any major changes in the area of welfare and health except perhaps the creation in 1965 of a mixed commission in charge of coordinating efforts of the two large social security

institutions (IMSS and ISSSTE) and the Ministry of Health and Welfare and the creation of the Mexican Institute of Child Assistance (INPI) in 1968.

The government of Echeverria, on the other hand, took an active stand in legal and institutional terms as well as resource wise to expand the system of welfare and public health; in 1971, for example, a law was passed to prevent and control pollution (which in retrospect does not seem to have been very effective) and a National Health Plan was elaborated in 1974 though it is not clear to what extent its objectives have been fulfilled.

In order to expand the social security system to reach, especially, the rural areas, a new social security law was enacted in 1973. As a consequence of this law the "social solidarity" program in charge of IMSS was launched in 1974 which entailed the provision of infrastructure for health services in exchange for the contribution of (free) labor by members of the community. During Echeverria's presidency the proportion of the population covered by social security rose from 24.4 percent in 1970 to 36 percent in 1976.

Lopez Portillo (1977-1982) undertook a series of measures in the area of health and welfare (COPLAMAR, op. cit., pp. 121-123). Perhaps the most relevant one in terms of the provision of health services is the agreement between IMSS and COPLAMAR (discussed in chapter III.5) signed in 1979 whose target were mainly the rural marginals. According to some estimates, by the end of 1980 under this program there were 2,104 medical units and 41 hospital-clinics in operation and the number of beneficiaries was

estimated in 14 million (COPLAMAR, op. cit., p. 122; Lozoya, 1984, p. 416). It is not clear what has become of this program in recent times in terms of effective services given the cutbacks in outlays in the area of health that have taken place as part of De la Madrid's adjustment program (the government claims that the IMSS-COPLAMAR program continues). At a more global level, per capita spending on welfare and health declined by more than 30 percent in 1983; however, here again as with the case of education this decline is reflecting both the fall in wages paid to workers in the area of public health and cutbacks in investment. In terms of physical resources so far there have been no noticeable changes in the standard indicators (the number of doctors and beds per serviced population, for example, has not declined; Lustig, 1987).

Though it is not evident how to link expenditures with performance, we can observe that health indicators point out that major improvements have taken place since the 1930's to the present. For example life expectancy at birth rose from around 36 years in 1930 to over 60 in 1975 (COPLAMAR, op. cit., p. 58); the gross mortality rate went down from 3.5 percent at the turn of the century, to around 2.5 percent in 1930 and to .9 percent in 1975 (ibid., p. 62); and the infant mortality rate declined from around 30 percent at the turn of the century, to 15 percent in 1930 and to little over 5 percent in the late seventies-early eighties (ibid., p. 72 and estimates given to the author by CONAPO, National Population Council).

As we shall see these improvements have not been uniform through the country and, moreover, according to some estimates,

in 1974 over 40 percent of the total deaths could have been avoided (that is, the probability of death would have declined had the disease (or other cause) been prevented or treated adequately) (ibid, p. 80).

The characteristics of the present structure of health services is presented in Table 15. The non-personal services include, among others: to promote the physical and mental health of the population; the improvement of nutrition and hygiene; the fight against pollution and the prevention and control of diseases and accidents that affect public health; the sanitary control of food and medical products, beverages, pesticides, etc.; and, the campaigns against alcoholism and drug addiction. The provision and/or regulation of the non-personal services are in charge of the Ministry of Public Health and Welfare (Secretaria de Salubridad y Asistencia, SSA), except in the area of occupational health in which the latter is linked to the Ministry of Labor. It seems that the quality and quantity of these services are not adequate because there are no specific policies with respect to them and because many of the decrees, regulations, agreements, treaties, etc. are outdated (COPLAMAR, op. cit., p. 127). In addition, the amount of financial resources devoted to non-personal health services seems to be rather low: for example, in 1979 they were equal to 2.3% of the total expenditures on health and social security (COPLAMAR, op. cit., p. 138).

The personal services of health care are provided by three broad sectors: the public social security organizations, the

public-governmental sector and private medicine. In the first group are included IMSS, ISSSTE and other much smaller medical and social security schemes the most important of which are for the military, railway, electricity, petroleum and sugar workers. As we saw in Chapter III.5 these institutions have benefitted relatively more the urban, better-off workers.

The public governmental sector includes several institutions of which the most important is the Ministry of Public Health and Welfare itself, "... a ministry which provides the main alternative source of health care for the bulk of the population not covered by any of the social security organizations. ..." (Ward, 1986, p. 111). (Let the reader be reminded that by the end of the nineteen seventies it was estimated that around 60% of the population was not covered by a social security system.) Finally, private medicine includes both private health care as well as charitable institutions such as the Red Cross and the Green Cross.

According to Lopez Acuña (1980, p. 108) the distribution of the population among the three sources plus the unattended population, in 1978, was as follows: social security institutions covered 39.3 percent of the total population; the government-public agencies, 15.6 percent; and the private sector attended 14.9% of total population; which means that around 30 percent of the population was unattended (Table 16). When the supply of resources is corrected for institutional and geographical concentration and the "real" coverage is calculated, according to estimates made by COPLAMAR (op. cit., p. 175) the unattended population, for the same year, rose to 45.3 percent (Table 16).

The highest proportion of the unattended live in rural areas.

These estimates were made before the launching of the IMSS-COPLAMAR agreement which, as we mentioned above, according to Lozoya (op. cit., p. 416) reached an additional 14 million people (presumably from the group of the previously unattended)). However, "... the level of benefits is not as comprehensive and is limited to non-specialist medical treatment and exclude maternity care. ..." (Ward, op. cit., p. 114). Nonetheless, according to COPLAMAR (op. cit., p. 185) the IMSS-COPLAMAR program has resulted in substantial improvements in the availability of physical resources, especially at the primary level of attention (external consultation units), for the South Pacific region (one of the poorest if not the poorest one of the country).

In terms of cash resources we have seen above that the share (as a proportion of total government expenditure) allocated to health, social security and welfare had reached over 8 percent in the 1970's (Table 14). However, if this share is recalculated including in government expenditure the 25 agencies that were incorportated to the controlled budget in 1972 and 1973 (see more details above), then the share allocated to health and social security was close to 15 percent in the early-mid 1970's (Wilkie, op. cit., p. 527 and Aspe and Beristain, op. cit). (The latter includes not only health expenditures through social security agencies but also those outlays related to social security proper). As a share of GDP expenditures on health equalled .4 percent in 1940, 3.5 percent in 1970 and 4 percent in 1980

(INEGI, 1984).

Financial resources, however, are quite unequally distributed among the three major public institutions in charge of health care (namely, IMSS, ISSSTE and SSA). For example, in Table 17 we can observe that the two large social security agencies (IMSS and ISSSTEE) absorb around 90 percent of the budget allocated to the three and they give service to around 40 percent of the population. As a result of this in Table 18 we can observe that per capita expenditure by SSA is equivalent to around 5 percent of that prevalent for IMSS (that is, it is 95 percent lower).

Physical resources measured in terms of doctors per one thousand attended and hospital beds per one thousand attended are also substantially lower in the case of the Ministry of Public Health and Welfare (SSA), though it seems that during the nineteen seventies the gap was getting narrower at least until the beginning of the crisis. (It seems that the 1983 cutbacks in social development did affect the availability of physical resources of the Ministry perhaps as a consequence of the increase in the population while resources were kept constant). The Ministry of Welfare and Health (SSA) has more units than the other two, especially units dedicated to external consultation. However, considering the number of medical and paramedical personnel registered for each institution, these units must be quite understaffed (Table 19).

There are no recent analogous comparisons for private and public medicine. According to COPLAMAR (op. cit., p. 142) in 1979 of the total number of hospitals in the country (estimated in

1,408), 709 were private. The latter, however, are relatively small in size and in terms of hospital beds they represented only 18 percent of the total.

The data on Tables 17 and 18 indicate the unequal character of the supply of health care. We saw in Chapter III.5 that the insured population includes the better-off workers (because they are the workers in the formal sector of the economy) and, from what we just saw, these workers are also getting better quality health care. On the contrary, the poorer sector of the population has access, if at all, to health care services of lower quality, at least judging from the amount of financial and physical resources available to them.

The evidence shows that resources were unequally distributed geographically as well (Table 20). In fact, there has been a tendency for the poorer states (Oaxaca, Guerrero, Chiapas, Tlaxcala, Hidalgo and Mexico, for example) to be less staffed than the states with higher per capita income (for example, Nuevo Leon, Coahuila, Chihuahua, Baja California Sur, Sonora, and, of course, the Federal District). The poorer states are also less covered by health institutions in proportion to their population (Table 21).

To some extent this unequal distribution of resources and access to health care is reflected in the behavior of the mortality rate by state (Table 22). Nonetheless, there are some strange cases such as Coahuila which is relatively well-endowed but its mortality rate is high, or Guerrero, very poorly serviced but with a mortality rate that is significantly lower than that

prevailing in the other poor states. However, it should be remembered that mortality rates include not only those resulting from disease, but violent deaths as well which need not be correlated at all with the availability of free health care.

In spite of the efforts made in the area of public health (through the social security system or the SSA) to ensure that the entire population has access to health care, COPLAMAR (op. cit., pp. 172-185) estimated that at the end of the seventies, at a national level, there were important deficits in doctors, nurses, labs, etc., which were exacerbated by the geographic and institutional concentration. According to this study, the most marginal states (Chiapas, Guerrero and Oaxaca) had higher deficits in terms of real coverage whereas the largest proportion of the surplus (89% of the "surplus" doctors and 88.3% of the "surplus" nurses) were in the Mexico City area.

In terms of incidence, public expenditures in the area of health and welfare through the public-governmental institutions seem to be quite progressively allocated (Table 23). The incidence of expenditures through the social security system, however, seems to follow some sort of sideways S-shape (Table 23) which, as we saw in Chapter III.5, is the same shape followed by the net incidence of social security (that is, after contributions are subtracted).

In sum, overall it would seem that the Mexican government has put resources and institutional efforts to provide health care to the population. However, these have been insufficient and have tended to be concentrated, both in quantity and quality, in the better-off sectors of the country. Improvement can still

be made in the area of infant mortality as well as overall mortality rates if adequate information and treatment is made available with opportunity. In addition, though the incidence of expenditures in the area of public-governmental insitutions declines with income, net incidence of the social security system (which has the largest portion of resources in the area of health) does not follow this desirable pattern.

v. Food Subsidies

The Mexican government began regulating the prices of staples in the 1930's (Barkin and Esteva, 1981). The objectives of this long-standing intervention are twofold: in rural areas to protect the small farmers against speculators and drastic price decreases, and in urban areas to protect the purchasing power of poor consumers against rising food prices.

The government attempts to achieve these goals intervening in three ways: first, by purchasing basic grains at guaranteed (support) prices; second, by maintaining price controls on staples and giving subsidies on some fundamental input (such as corn in the case of "tortillas") to the industries that produce them; and third, by participating directly in the production and marketing of basic foodstuffs.

In historical terms perhaps the first relevant agency in this field was ANDSA (National Storage Houses), founded by Cardenas in 1936 whose main objective was to stop speculation by providing a place to store the crops after harvest and cash in advance against the stored merchandise. In 1938 the Regulating

Committee of the Subsistence Markets was founded; its objective was to participate in the commercialization of corn and wheat and, to a lesser extent, of rice, beans, sugar and other staples. This committee was dissolved in 1941 and its functions were put in charge of another agency: the Mexican Company of Exports and Imports (CEIMSA). The latter was closed in 1961 and a new agency takes up all the tasks: CONASUPO which, since 1965, acquires the status of a descentralized government enterprise. Since its creation, CONASUPO's objectives were the regulation of the market of basic staples to guarantee a minimum price to the agricultural producers and to ensure supply at reasonable prices for the urban consumers (Lustig y Martin del Campo, 1985).

In practice, some estimates show that CONASUPO's operations since 1965 and up to 1982 resulted, on the average, in an implicit tax for the average agricultural producer of corn (with the exception of the years 1967, 1968, 1981 and 1982), sorghum and wheat (i.e., the guaranteed price was lower than the international price corrected for exchange rate overvaluation) (Norton, 1984, pp. 2-14, 2-15 and 2-16); and a subsidy for consumers (Martin del Campo, 1987, Table 4).

A possible way to estimate the size of the total cost of the subsidies on food is by looking at the relative size of the transfers received by CONASUPO from the central government as a share of total government expenditure. This ratio is presented in Table 23 and, as it can be observed, the share tended to increase to over 2 percent in the early eighties. This increase may be the consequence of the support price policies recommended by the Mexican Food System which resulted, as it was mentioned

above, for the first time in many years, in a subsidy (rather than a tax) to corn producers, but also of some miscalculations in the total imports required to satisfy internal demand (which seems to be what happenned in 1981).

Since CONASUPO finances its deficit with transfers and borrowed funds, perhaps a better estimate of the size of the total subsidy is the share of the total financial deficit of CONASUPO as a proportion, for example, of GDP. In Table 24 we can observe that, however large CONASUPO's deficit has been, it has not exceeded 1.4 percent of GDP, even when the agency's capital outlays are included, and it has on the average stayed below 0.5 percent.

CONASUPO's deficit could be treated as if it consisted of what the government spends in providing food to the Mexican population (analogously with using expenditures on health as a way to measure the supply of health services that the government gives to the population). The question to ask, then, is -- independently of the efficienty with which CONASUPO operates as an enterprise (a subject which has not been addressed for any of the other agencies that were analyzed)-- whether the amount spent by the government in improving the food intake of its citizens actually reaches those who need it more and in what proportion.

As before, here there are two types of indicators that are relevant. One has to do with the incidence of the subsidy by income strata, and the other with the distribution of the subsidy among different income strata. The first indicator measures the size of the subsidy in proportion to the stratum's income and how

this ratio behaves across strata. A progressive incidence would occur if the ratio declines as income rises.

The second indicator measures the allocation of the subsidy. A strictly progressive allocation would result if the lower income strata are able to apropriate a higher proportion of the total subsidy (i.e., if the distribution of the subsidy has the shape of a Lorenz-like curve which lies above the diagonal). However, an allocation can be considered progressive from the distributive point of view when the mentioned Lorenz-like curve lies above the Lorenz curve that describes the distribution of income.

Since the major subsidies provided by CONASUPO are in the form of general price subsidies (as opposed to targetted subsidies), one way to measure the degree of progressiveness of the allocation of the subsidies is by calculating the Intensity of Consumption Coefficient (ICC) which is equal to the ratio of the area of the Lorenz-like curve depicting the behavior of consumption expenditures on the any particular good by income deciles, to the area of the perfect equality triangle (McCarthy, 1978). When this ratio is greater than unity, it means that the poor consume proportionately more than the rich of that good and, thus, if the good is subsidized they are getting a larger cut of the total subsidy on that good.

According to the estimates presented on Table 25, the only foodstuffs that satisfy this condition are (raw) corn and "piloncillo" (unrefined sugar), neither of which is subject to an explicit subsidy (although, in the case of corn, the implicit tax on producers mentioned above could be viewed as a subsidy to net

buyers of corn in the agricultural areas).

The rest of the basic staples have an ICC below unity, but in some cases the value is very close to one. The further away from unity the ICC is, indicates the lesser degree of progressivity of the allocation of the subsidy. For the set of foodstuffs that this index was calculated and which are subject to a subsidy scheme, the order of importance is: beans, rice and tortillas.

If we now look at Table 26 we can observe that CONASUPO dedicates a much lower share of the subsidies to beans and rice (below 10 percent) compared to what is allocated to maize. Moreover, over time the share going to the latter has declined while that going to sorghum and oilseeds has risen. The first one is a major input in the production of beef and poultry, both of which are more intensively consumed by the higher incomes (though they may represent a very high proportion of the amount spent on food by the poor). This result is indicating that the general price subsidies on some products entail an important "leakage", in the sense that the largest portion of the benefit of the subsidy is captured by higher income groups. Thus, a lot could be gained in terms of equity if the subsidies on food products were targetted to the lower income groups (such as is the case with the milk coupons program LICONSA; see Lustig, op. cit., and Martin del Campo, op. cit.).

Moreover, in Table 27 we can observe that, basing ourselves on the budget shares allocated to the most subsidized foodstuffs by income decile, with the exception of beans and rice, the

incidence of the subsidies on corn (tortillas), sorghum (beef, poultry and eggs) and oilseeds (cooking oil) tends to be regressive. The situation changes for the case of tortilla if we take the urban population separately; the incidence of the subsidy becomes progressive (Lustig, 1986, op. cit.).

The results on the incidence of the food subsidies combined with the previous ones on the character of the allocation of the those subsidies, give strong support for changing the current schemes to target oriented ones. The only exception to this are the cases of beans and rice, and the case of tortillas in the urban areas, which are self-targetting in both senses: from the equity as well as the incidence point of view.

Faced with very stringent budget goals; after the outburst of the crisis in 1982 and the implementation of the adjustment program in 1983, the government has presumably made a great effort to "rationalize" the food subsidy schemes and make them more targetted (for example, the tortilla coupon was introduced) (Martin del Campo, op. cit.). However, so far it is not clear to what extent savings obtained by the new schemes are the result of the rationalization of the system or to sheer elimination of the subsidy on large portions of the commercialized foodstuffs. If the latter is the case, the problem is that it is not clear whether those people who stop having access to the subsidy are those who should actually be excluded on distributive grounds.

vi. Expenditures on Housing

It has been estimated that in 1970 around 39% of total households had drinkable water (but only 17 % of the rural

dwellings), 42% had sewage system (but only 14% in the rural sector) and 59% had electricity (but only 28 % in the rural sector) (COPLAMAR, 1982, Vol. 3, p. 43). For 1960 the analogous numbers were 24%, 29% and 28%, respectively, which means that in the ten year period between this year and the early seventies there had been considerable efforts to expand the housing services to the population; nonetheless, the situation was still lacking by the end of the 1970's (COPLAMAR, ibid.).

In addition, according to some estimates the housing deficit for 1970 could range from 2.3 million units up to 5.6 million units (Silva Herzog, 1973 and Garza and Schteingart, 1976, respectively; cited in Moore, 1984), depending on the assumptions made about replacement needs and about the qualitative deficit resulting from below standard housing. Although government participation in the area of housing goes back as far as 1925, it is not until the nineteen seventies in which they acquire significance. According to some estimates, between 1925 and 1960 the public sector undertook fewer "actions" (the actions measure both the number of credits given or the number of houses constructed) than between 1970 and 1980 (500 thousand and 700 thousand, respectively) (COPLAMAR, 1982, vol. 3, p. 77).

Public housing programs have utilized as its legal basis the Constitution of 1917. In article 123 there is a clear statement about the fundamental right of housing for workers. According to Moore (1984, p. 344): " .. Most housing programs for the first thirty years of the "new republic" focused on (1) private credit markets providing access (mortgage credit) within the private

sector; and (2) specific institutions of relatively minor importance that provided subsidized rental payments to employees. Public participation in the control or regularization of the prices, in terms of credit, or in land (in the housing sector) itself was indeed contemplated, but not actualized during this time period."

In 1925, within the Department of Civil Service Pensions, the government started a program to provide housing for federal employees. In 1959, as we saw in Chapter III.5 this Department was transformed into the ISSSTE which in 1972 created its housing fund (FOVISSSTE). In 1933, the National Urban Mortgage and Public Works Bank (Banco Nacional Hipotecario Urbano y de Obras Publicas, later BANOBRAS) was created. In 1934 the Department of the Federal District started the construction of popular housing. (COPLAMAR, 1982, Vol. 3, p. 75). In 1945, under President Avila Camacho, the Banco de Fomento de la Habitacion (Housing Promotion Bank) was created and ". ... (T)his institution for the first time contemplated the utilization of public capital for housing construction ..." (Moore, op. cit., p. 344). The allocated sum was distributed among several institutions among which we find IMSS and the Department of Civil Service Pensions.

However, the real beginning of government action in housing policy is in the 1950's. " ... Housing policy during the period of 1950-1960 consisted primarily of: (1) lending programs; (2) rental subsidy programs; (3) programs oriented toward those who legitimately could gain access to the existing private mortgage markets based on income; and (4) programs that financed housing access for public employees. The principal focus of programs

aimed at stimulating private-sector activities. ... The effect, in many ways, was to provide financing capabilities for middle-income households, especially in urban areas. ... The period from the 1960's suggests a new shift in the orientation of pubic policy toward housing in Mexico, away from rental subsidy and toward increased direct construction. ..." (Moore, op. cit., p. 344).

Initially government response to the "housing problem" of the central-city poor was rent control (begun in 1942). As the expected deterioration of frozen rent places has taken place, policies of renewal were established in favor of commercial housing. In addition, the typical responses to land invasion of eviction and eradication were replaced by "regularization" of low-income peripheral zones of especially Mexico City.

The participation of the public sector in housing construction rose from 5.4 percent in the 1951-1960 period to 18 percent in the 1970-1974 period; while that of the private sector declined from 28.8 percent to 16.5 percent, respectively. In the 1971-1974 period, however, the major supplier in the housing market continued to be the self-constructed popular housing (around 65 percent in both periods) (Garza and Schteingart, 1976). Public sector activity in the area of housing construction has been concentrated in Mexico City.

In general the government has dealt with the housing problems as if it were mainly a financial problem and public-sector intervention was viewed as a stimulation of private initiative. The reliance on private institutional lending meant

that only the top of the lower income groups could be reached. For example, in the 1960's the social-interest housing had an average cost of $ 60,000 while, according to the Income Expenditure Survey of 1963, two thirds of the urban families earned $ 1,500 or less per month.

As a consequence of the new labor law enacted in 1970 under Echeverria's government, the INFONAVIT (Institute of National Funds of Housing for Workers), was created in 1973 and it is the most important institution of the 1970's designed to meet housing demands. "... The program administers credit to workers under a variety of schemes or 'credit lines'. The majority of funds are allocated to direct financing of the construction of housing for workers. ... The INFONAVIT program has provided a valuable alternative in the housing market over existing programs. ... However, it should be noted that the program ... does not reach the urban poor with any degree of success. The assumption of housing for those in the formal labor market and earning at least the minimum wage, excludes the majority of the population. ..." (Moore, op. cit., p. 349, 350 and 351).

All in all, then, housing policies have concentrated mainly in the capital and, less so, in other metropolitan areas. In the rural sector housing policy is almost absent. In Mexico City, in addition, the majority of actions have centered on solving the housing problems of the "working poor", but has been unable to satisfy the housing needs of the "really" poor.

Table 1
Mexico: Classification of government expenditures

ECONOMIC EXPENDITURES:

Commerce and industry
Communications and public works
Agriculture, cattle and forestry
Agricultural credit
Agrarian department
Water and irrigation
Tourism
Investments in shares, equities, bonds, railroads, electricity, oil, steel, etc.
Transfers to industry and commerce, support for prices (CONASUPO), subsidies to descentralized agencies (Puertos Libres Mexicanos, Comision Nacional de Valores, Ferrocarriles, etc.)

SOCIAL EXPENDITURES:

Education and physical education
Indian affairs
Public healths and welfare
Drinkable water and sewage
Labor
Trnsfers to National Institute of Housing and National Institute of Social Security
Social and cultural assistance (includes agricultural insurance, Banco Nacional Hipotecario y Obras Publicas, Patrimonio Indigena del Valle del Mezquital
Payments for medical care for state employees
Insurance programs for the military and civilians

ADMINISTRATIVE EXPENDITURES:

Public debt (interests and amortization)
Military, Legislative, Executive and Judicial branches
Foreign relations
Attorney General
All the ministries
General expenditures
Transfers (subsidies to state and municipal governments), and pensions for government employees

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Source: Wilkie, 1978, p. 46

Table 2.a
Mexico: Average allocation of government expenditure: 1920-1963
(in percentages)

Period		Total	Economic	Social	Administrative
1920	De la Huerta	100.0	17.2	2.3	80.5
1921-1924	Obregón	100.0	17.9	9.7	72.4
1925-1928	Calles	100.0	24.8	10.1	65.1
1929	Portes Gil	100.0	23.2	12.9	63.9
1930-1932	Ortiz Rubio	100.0	28.1	15.8	56.1
1933-1934	Rodríguez	100.0	21.7	15.4	62.9
1935-1940	Cárdenas	100.0	37.6	18.3	44.1
1941-1946	Ávila Camacho	100.0	39.2	16.5	44.3
1947-1952	Alemán	100.0	51.9	13.3	34.8
1953-1958	Ruiz Cortines	100.0	52.7	14.4	32.9
1959-1963	López Mateos	100.0	39.0	19.2	41.8

Source: Wilkie, 1978, p. 66

Table 2.b
Mexico: Allocation of government expenditures:
1964-1976
(in percentages)

Category	1964	1965	1966	1967	1968	1969	1970
Economic	39.4	42.5	40.7	37.6	40.4	42.3	40.1
Social	21.1	18.2	22.4	20.3	21.6	21.3	22.0
Administ.	39.5	39.3	36.9	42.1	38.0	36.4	37.9

	1971	1972	1973	1974	1975	1976
Econ.	40.2	46.6	45.5	44.3	46.7	48.7
1.	(12.3)	(11.9)	(11.8)	(9.7)	(7.8)	(7.9)
2.	(9.9)	(18.5)	(15.3)	(18.1)	(21.0)	(12.2)
3.	(18.0)	(16.2)	(18.4)	(16.5)	(17.9)	(28.6)
Social	24.3	23.6	23.6	23.5	23.1	22.9
4.	(15.9)	(14.4)	(14.0)	(14.4)	(14.8)	(14.4)
5.	(3.6)	(4.4)	(4.2)	(3.5)	(3.4)	(3.2)
6.	(4.8)	(4.8)	(5.4)	(5.6)	(4.9)	(5.3)
Admin.	35.5	29.8	30.9	32.2	30.2	28.4
7.	(4.8)	(4.2)	(4.0)	(4.0)	(3.4)	(3.0)
8.	(12.8)	(11.2)	(14.6)	(14.8)	(15.0)	(14.1)
9.	(17.9)	(14.4)	(12.3)	(13.4)	(11.8)	(11.3)

1. Communications and transport
2. Natural resources
3. Industry and commerce
4. Education and culture
5. Public health and social assistance
6. Welfare and social security
7. Military branch
8. General administration
9. Public debt (interests and amortizations)

Source: Wilkie, 1978, p. 354 and 358

Table 2.c
Mexico: Structure of government expenditures
by sector: 1977-1985
(in percentages)

	1977	1978	1979	1980	1981	1982	1983	1984 1/	1985 1/
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Energy	26.0	29.4	26.5	29.1	29.3	11.6	12.9	12.9	12.1
Communications and Transport	6.4	6.2	6.3	6.2	5.7	3.4	4.4	4.3	4.5
Social development	22.2	20.3	19.5	17.4	16.6	13.8	12.4	12.8	13.4
Industry	8.7	8.0	8.7	7.7	8.5	5.0	4.2	6.9	6.3
Agriculture, cattle and fishing	8.8	7.4	8.0	9.0	8.5	5.5	6.1	5.3	4.8
Administrative	23.8	23.3	27.2	25.0	27.3	57.1	54.8	52.8	55.4
Commerce	5.9	7.2	5.5	5.3	5.9	3.4	5.0	4.9	3.4
Tourism	0.4	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1

Source: Samaniego, 1986, Table 16

Table 2.d
Mexico: Allocation of government expenditures: 1965-1976*
(in percentages)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Total (in millions of pesos)	64 020	66 054	79 452	83 422	98 001	109 261	121 332	148 768	191 205	276 843	400 650	520 02
Total in %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Economic	48.0	61.0	55.4	50.1	50.6	49.2	48.8	51.1	50.8	53.2	55.6	54.1
1.	(10.8)	(13.0)	(12.1)	(11.3)	(11.0)	(11.0)	(10.9)	(10.8)	(10.6)	(8.6)	(8.0)	(7.6)
2.	(4.9)	(3.3)	(3.0)	(3.2)	(4.4)	(8.0)	(7.5)	(12.2)	(11.3)	(15.2)	(16.1)	(11.5)
3.	(34.3)	(44.7)	(40.3)	(35.6)	(35.2)	(30.2)	(30.4)	(28.1)	(28.9)	(29.4)	(31.5)	(35.0)
Social	19.1	21.4	22.7	23.4	22.5	22.8	24.2	25.5	24.3	22.9	21.4	22.2
4.	(6.3)	(7.1)	(6.6)	(6.9)	(7.2)	(6.8)	(7.3)	(7.5)	(7.5)	(7.1)	(7.4)	(7.6)
5.												
6.	(2.8)	(3.8)	(4.2)	(4.6)	(4.4)	(4.3)	(4.1)	(4.4)	(4.2)	(3.2)	(3.0)	(3.0)
	(10.0)	(10.5)	(11.9)	(11.9)	(10.9)	(11.7)	(12.8)	(13.6)	(12.6)	(12.6)	(11.0)	(11.6)
Administrative	32.9	17.6	21.9	26.5	26.9	28.0	27.0	23.4	24.9	23.9	23.0	23.7
7.	(2.6)	(2.7)	(2.3)	(2.5)	(2.7)	(2.3)	(2.2)	(2.2)	(2.1)	(1.9)	(1.7)	(1.6
8.	(8.0)	(4.3)	(4.7)	(6.7)	(5.5)	(6.6)	(5.9)	(5.7)	(7.8)	(7.3)	(7.5)	(7.5
9.	(22.3)	(10.6)	(14.9)	(17.3)	(18.7)	(19.1)	(18.9)	(15.5)	(15.0)	(14.7)	(13.8)	(14.6

* Government expenditures include the 25 descentralized agencies incorporated in 1972 and 1973 (see text).

1. Communications and transport
2. Natural resources
3. Industry and commerce
4. Education and culture
5. Public health and social assistance
6. Welfare and social security
7. Military branch
8. General administration
9. Public debt (interests and amortizations)

Source: Wilkie, 1978, p. 527

Table 3.a
Mexico: Government expenditures in per capita terms: 1920-1970 (1950=100)

Year	Total	Econ.	Social	Admin.
1920	25.3	4.3	.6	20.4
1921-1924	55.8	10.0	5.4	40.4
1925-1928	67.9	16.8	6.9	44.2
1929	61.5	14.3	7.9	39.3
1930-1932	56.4	15.9	8.9	31.6
1933-1934	59.6	12.9	9.2	37.5
1935-1940	82.2	30.9	15.0	36.3
1941-1946	103.0	40.4	17.0	45.6
1947-1952	146.7	76.1	19.5	51.1
1953-1958	180.8	95.3	26.0	59.5
1959	208.1	93.2	36.2	78.7
1960	271.8	114.4	44.6	112.8
1961	263.5	83.8	49.3	130.4
1962	249.8	87.8	52.2	109.9
1963	233.8	96.6	52.8	84.4
1964	311.3	122.6	65.7	123.0
1965	376.5	160.0	68.5	148.0
1966	319.4	130.0	71.5	117.9
1967	388.6	146.1	78.9	163.6
1968	372.1	150.3	80.4	141.4
1969	431.1	182.4	91.8	156.9
1970	423.1	169.7	93.1	160.3

Source: Wilkie, 1978, pp. 69 and 322

Table 3.b
Mexico: Government expenditure in social development in per capita terms: 1977-1985
(1970=100)

	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL								
Pesos	836.0	815.4	857.6	876.9	992.3	1 002.6	705.7	708.3
Change %	-	-2.5	5.2	2.3	13.2	1.0	-29.6	0.4
EDUCATION								
Pesos	210.4	219.4	234.0	235.1	322.1	326.0	203.5	214.9
Change %	-	4.2	6.6	0.5	37.0	1.2	-37.6	5.5
HEALTH								
Pesos	24.5	27.8	29.7	29.3	58.8	60.4	40.5	41.3
Change %	-	13.5	6.8	-1.4	100.7	2.7	-32.9	2.0
SOCIAL SEC.								
Pesos	373.2	350.3	370.8	398.8	393.6	372.7	296.0	376.9
Change %	-	-6.2	5.9	7.5	-1.3	-5.4	-20.6	-6.5

Source: Samaniego, 1986, Table 18

Table 4
Mexico: Indicators of Social Wellbeing: 1940-1980

	1940	1950	1960	1970	1980
EDUCATION					
Illiteracy rate (1)	53.9	43.4	34.6	24.7	16.6
Total enrolment as % of tot. pop.	8.0	11.1	16.0	22.0	30.2
Average schooling (2)	1.7	2.1	2.8	3.7	4.3
HEALTH					
Mortality rate/1000	22.8	16.2	11.5	10.1	6.3
%of death due to infectious diseases	43.1	34.6	25.5	23.1	13.7
Infant mortality/1000 (3)	125.7	96.2	74.2 100.0	65.6	38.8 55.0
Life expectancy at birth (years)	41.45	49.69	58.93	62.14	68.06

Source: Samaniego, 1986, Table 11; except for (3)

(1) As apercentage of the total population of fifteen years or more.
(2) Number of years in the population of fifteen or more.
(3) Infant Mortality rates given by UNICEF, which coincide with the corrections made by the National Council of Population in Mexico for unreported births.

Table 5
Mexico: Allocation of government expenditure:1940-1975

	1940	1950	1960	1970	1975
ECONOMIC	34.1	49.2	42.1	40.1	46.7
Agriculture	(11.4)				--
Communic. and public works	(10.1)				(7.8)
Natural resources	--				(21.0)
Industry commerce	(6.8)				(17.9)
Other *	(5.8)				--
SOCIAL	19.7	14.4	16.4	22.0	23.1
Education	(12.4)	(9.1)	(9.7)	(14.8)	(14.8)
Health and soc. security**	(7.3)	(5.3)	(6.7)	(7.2)	(8.3)
ADMINISTRATIVE					
Defence	(19.7)	(10.0)	(5.4)	(4.6)	(3.4)
General administration	(14.0)	(10.4)	(8.8)	(12.0)	(15.0)
Public debt	(12.5)	(16.0)	(27.3)	(21.3)	(11.8)

Source: Wilkie, 1978, several pages.

* The "other" (additional expenditures) category was eliminated subsequently and its components allocated to the other items; investment in irrigation was transferred from agriculture to public works.

** We have added together health and social security because due to changes of definition the two separate would not be comparable.

Note: The total government expenditure used to calculate the allocation did not include the 25 agencies added in 1973. For a comparison see Tables 2.b and 2.d

Table 6

Mexico: Government expenditure
by type: 1965, 1970, 1975 and 1980
(in percentages)

	1965	1970	1975	1980
TOTAL	100.0	100.0	100.0	100.0
CURRENT	79.7	67.7	71.6	69.8
Wages & salaries	(34.5)	(37.4)	(30.7)	(29.1)
Interests	(5.2)	(12.9)	(9.5)	(14.7)
States & Municip.	(1.6)	(0.2)	(3.0)	(7.2)
Transfers	(8.8)	(9.9)	(11.4)	(16.4)
CAPITAL	20.3	32.3	28.4	30.2

SOURCE: Secretaria de Hacienda y Credito Publico, ESTADISTICAS HACENDARIAS DEL SECTOR PUBLICO, 1965-1982.

Table 7
Mexico: Net fiscal incidence
by income stratum, 1968
(in percentages)

Income Strata (in yearly pesos per family)	Families Accumulated (percent)	Income Accumulated (percent)		Net incidence (percent)
		Before	After	
Up to 2,700	4.31	0.39	0.50	32.86
2,700.01 to 4,800	12.87	1.67	1.96	20.21
4,800.01 to 8,400	30.67	6.12	6.70	10.12
8,400.01 to 15,000	55.72	17.07	17.89	5.51
15,000.01 to 26,400	75.46	31.62	32.53	3.73
26,400.01 to 48,000	89.01	50.01	50.65	1.63
48,000.01 to 84,000	95.69	66.42	66.91	2.34
84,000.01 to 151,200	98.20	77.85	78.04	0.55
more than 151,200	100.00	100.00	100.0	2.35
Total				3.23

Source: Reyes Heroles, 1976, pp. 277, 287 and 288

Table 8
Mexico: Allocation of net fiscal resources by income stratum, 1968
(in percentages)

Income Strata (in yearly pesos per family)	Families Accumulated (percent)	Income Accumulated (percent)		Net allocation Accumulated (percent)
		Before	After	
Up to 2,700	4.31	0.39	0.50	4.0
2,700.01 to 4,800	12.87	1.67	1.96	11.2
4,800.01 to 8,400	30.67	6.12	6.70	24.9
8,400.01 to 15,000	55.72	17.07	17.89	43.5
15,000.01 to 26,400	75.46	31.62	32.53	60.8
26,400.01 to 48,000	89.01	50.01	50.65	70.5
48,000.01 to 84,000	95.69	66.42	66.91	81.1
84,000.01 to 151,200	98.20	77.85	78.04	83.9
more than 151,200	100.00	100.00	100.0	100.0

Source: Author's calculations with data presented in Reyes Heroles, 1976, p. 275.

Note: All the net fiscal allocations can positive because the public sector held a deficit.

Table 9
Mexico: Expenditure on education
1935-1980

Years	1 GDP (nominal)	2 Federal government expenditures	3 SEP expenditures	4 Total public investment	5 Federal public investment in education and research	3/1 %	3/2 %	5/4 %
	(millions of pesos)							
1935	4,279	301	38	137	2	0.9	12.6	1.5
1936	5,038	406	51	168	2	1.0	12.7	1.1
1937	6,409	479	63	192	2	1.0	13.3	1.0
1938	6,862	504	64	198	2	0.9	12.8	1.0
1939	7,337	571	67	233	2	0.9	11.7	0.9
1940	7,774	610	75	290	3	0.9	12.3	1.0
1941	8,701	689	77	337	1	0.9	11.1	0.3
1942	10,066	845	86	464	1	0.8	10.1	0.2
1943	12,285	1,085	94	568	1	0.8	8.7	0.2
1944	17,719	1,505	130	657	9	0.7	8.6	1.4
1945	19,382	1,633	170	848	9	0.9	10.4	1.1
1946	26,322	1,829	199	999	10	0.8	10.8	1.0
1947	29,237	2,343	216	1,310	13	0.7	9.2	1.0
1948	31,196	2,773	237	1,539	17	0.8	8.5	1.1
1949	34,316	3,741	282	1,956	15	0.8	7.5	0.8
1950	39,736	3,700	314	2,672	29	0.8	8.5	1.1
1951	51,245	5,075	366	2,836	102	0.7	7.2	3.5
1952	57,482	6,603	459	3,280	221	0.8	7.0	6.7
1953	57,172	5,825	507	3,076	109	0.9	8.7	3.5
1954	69,680	8,471	691	4,183	136	1.0	8.2	3.3
1955	84,870	9,255	731	4,408	74	0.9	7.9	1.7
1956	96,996	10,567	901	4,571	131	0.9	8.5	2.9
1957	111,402	11,815	1,035	5,628	129	0.9	8.8	2.3
1958	123,815	13,841	1,273	6,190	155	1.0	9.2	2.5
1959	132,669	14,777	1,506	6,362	108	1.1	10.2	1.7
1960	150,511	20,778	1,959	8,376	192	1.3	9.4	2.3
1961	163,265	20,946	2,196	10,372	273	1.3	10.5	2.6
1962	176,030	21,421	2,512	10,823	175	1.4	11.7	1.6
1963	195,983	21,371	2,877	13,821	438	1.5	13.5	3.2
1964	231,370	29,660	3,728	17,436	610	1.6	12.6	3.5
1965	252,028	36,979	4,075	13,048	774	1.6	11.0	5.9
1966	280,090	33,061	4,697	15,475	589	1.7	14.2	3.8
1967	306,317	40,860	5,260	21,057	1,021	1.7	12.9	4.8
1968	339,145	42,980	5,819	23,314	1,136	1.7	13.5	4.9
1969	374,900	49,775	7,073	26,339	1,472	1.9	14.2	5.6
1970	418,700	52,656	7,817	29,205	1,060	1.9	14.8	3.6
1971	452,400	55,786	9,445	22,392	1,230	2.1	16.9	5.5
1972	512,300	77,230	11,760	33,248	2,034	2.3	15.2	6.1
1973	619,600	102,241	15,140	49,778	2,199	2.4	14.8	4.4
1974	813,700	135,795	20,795	64,817	3,022	2.5	15.3	4.7
1975	988,300	200,416	31,116	95,767	4,602	3.1	15.5	4.8
1976	1,227,900	238,733	42,496	108,611	4,885	3.5	17.8	4.5
1977	1,674,700	355,132	61,761	140,102	5,874	3.7	17.4	4.2
1978	2,122,800	442,034	77,562	217,382	8,606	3.7	17.5	3.9
1979	2,767,000	652,100	102,955	313,750	5,689	3.7	15.8	1.8
1980	3,760 ?00	1,002,013	131,130	486,178	9,809	3.5	13.1	2.0

Source: Aspe and Beristain, 1984, Table 10.29
Note: Federal government expenditures here do not include the 25 agencies that were added to the controlled budget in 1972 and 1973; compare the shares allocated to allocation with those in Table 2.d.

Table 10
Mexico: Students per teacher
1950-1981

Year	Primary	Secondary	Preparatory	Higher
1950	44.7	7.8	5.3	4.9
1960	49.9	11.8	13.3	7
1970	47.7	16.2	14.2	10.8
1975	44.8	17.1	18.4	11.6
1981	37.5	18	17	13.4

Source: INEGI, 1984.

Table 11
Mexico: Students per school and students per teacher 1970–1980

	1970–1971		1980–1981	
	Students per school	*Students per teacher*	*Students per school*	*Students per teacher*
Pre-school	130	38	84	33
Elementary	205	48	194	49
Job training	n.a.	n.a.	148	26
Terminal elementary	136	20	130	16[a]
Basic secondary	267	16	319	18
Terminal secondary	151	8	254	14
Higher secondary	433	16	546	17
Teacher training	242	11	449	17
Higher[b]	703	11	1048	13

SOURCE: *La Poblacion de Mexico* op. cit. for 1970–1971. *Supplement, Historical Statistics. Fifth State-of-the-Nation Report.* From Aspe and Beristain, 1984, p. 10.27.

[a]Numbers for 1979–1980.

[b]Includes higher teacher training.

n.a. Not available

Table 12
Mexico: Enrolment and teachers by type of school, 1970 and 1985
(in percentages)

Year	Total	Federal	State	Private
PRIMARY				
1970				
Students	100.0	65.7	26.5	7.8
Teachers	100.0	63.4	26.8	9.8
1985				
Students	100.0	72.6	22.4	5.0
Teachers	100.0	73.8	21.3	4.9
SECONDARY				
1970				
Students	100.0	51.8	20.1	28.1
Teachers	100.0	40.7	22.0	37.3
1985				
Students	100.0	71.5	19.0	9.5
Teachers	100.0	63.0	21.8	15.2
HIGHER				
1970				
Students	100.0	19.6	66.4	14.0
Teachers	100.0	16.0	68.0	16.0
1985				
Students	100.0	14.1	70.1	15.8
Teachers	100.0	15.3	66.3	18.4

Source: Foe 1970, INEGI, 1984; for 1985, De la Madrid, 1986.

Table 13
Mexico: Incidence of expenditures on education by income strata, 1968 (in percentages)

Income Strata (in yearly pesos per family)	Families Accumulated (percent)	Income Accumulated (percent)	Incidence (percent)	
			Primary Level	Higher Levels
Up to 2,700	4.31	0.39	7.54	0.28
2,700.01 to 4,800	12.97	1.67	5.04	0.08
4,800.01 to 8,400	30.67	6.12	3.65	0.09
8,400.01 to 15,000	55.72	17.07	2.44	0.12
15,000.01 to 26,400	75.46	31.62	1.46	0.37
26,400.01 to 48,000	89.01	50.01	0.82	0.49
48,000.01 to 84,000	95.69	66.42	0.36	0.51
84,000.01 to 151,200	98.20	77.85	0.15	0.45
more than 151,200	100.00	100.00	0.03	0.21
Total			0.97	0.34

Source: Reyes Heroles, 1976, p. 237.

Table 14
Mexico: Expenditures on health welfare and assistance, 1925-1963

Year		Percentage	Pesos per capita (1950=100)
1925	Calles	1.6	1.1
1926	Calles	2.0	1.4
1927	Calles	2.3	1.6
1928	Calles	2.4	1.6
1929	Portes Gil	2.9	1.8
1930	Portes Gil/Ortiz Rubio	3.1	1.9
1931	Ortiz Rubio	3.2	1.7
1932	Ortiz Rubio	2.9	1.6
1933	Rodríguez	2.6	1.5
1934	Rodríguez	2.7	1.6
1935	Cárdenas	3.5	2.3
1936	Cárdenas	3.6	3.0
1937	Cárdenas	3.3	2.7
1938	Cárdenas	6.1	4.9
1939	Cárdenas	5.8	5.2
1940	Cárdenas	6.4	5.8
1941	Ávila Camacho	6.5	6.1
1942	Ávila Camacho	6.4	6.5
1943	Ávila Camacho	5.8	6.2
1944	Ávila Camacho	4.7	5.2
1945	Ávila Camacho	4.9	5.2
1946	Ávila Camacho	3.4	3.4
1947	Alemán	4.9	5.6
1948	Alemán	4.1	5.5
1949	Alemán	3.3	5.5
1950	Alemán	3.8	5.1
1951	Alemán	3.1	4.7
1952	Alemán	2.5	4.5
1953	Ruiz Cortines	3.2	4.6
1954	Ruiz Cortines	2.7	5.0
1955	Ruiz Cortines	2.8	4.9
1956	Ruiz Cortines	2.9	5.4
1957	Ruiz Cortines	3.3	6.2
1958	Ruiz Cortines	3.3	6.7
1959	López Mateos	3.4	7.1
1960	López Mateos	3.5	9.5
1961	López Mateos	3.9	10.3
1962	López Mateos	4.0	10.0
1963	López Mateos	3.3	7.7

Source: Wilkie, 1978, pp. 199-200.

Table 15
Mexico: current structure of health services

Type of service	Form of financing	Demand	Institutions in charge
Non-personal	Public transfers	Population at large	Ministry of Welfare and Public Health (SSA)
Personal	Private sector	Population with purchasing power	Private medicine
	Public sector, immediate payment (very low)	Free demand	Ministry of Welfare and Public Health, Municipalities, State government, Ministry of Education, Ministry of Labor
	Public sector transfers with contributions from employees and employers	Insured population	IMSS, ISSSTE, other
	Public transfers without contributions	Rural beneficiaries	IMSS-COPLAMAR

Source: Based on COPLAMAR, 1982, VOL. 4, pp. 126, 128, 130

Table 16
Mexico: Population attended
by type of institution, 1978
(in percentages)

	Nominal coverage*	Real coverage**
SOCIAL SECURITY	39.3	24.0
IMSS	29.9	18.1
ISSSTE	7.2	3.9
Others	2.2	2.0
SOCIAL ASSISTANCE	15.6	18.4
PRIVATE	14.9	12.3
UNATTENDED	30.1	45.3

Sources: * From Ward, 1986, p. 113
** From COPLAMAR, 1982, vol. 4, p. 175

Table 17
Mexico: Expenditure on health
by sector, 1940-1980*

Year	Total	SSA	IMSS	ISSSTE
1940	38 670	38 670	n.d.	n.d
%		100		
1950	248 090	248 090	n.d.	n.d
%		100		
1960	713 604	713 604	n.d.	n.d
%		100		
1970	15 529 172	1648 972	9 769 600	4 110 600
%		10.7	62.9	26.4
1975	48 243 700	5 088 300	28 584 500	14 570 900
%		10.6	59.2	30.2
1978	104 025 000	12 460 400	56 684 000	34 880 600
%		12.0	54.5	33.5
1980	184 184	19 626 000	104 491 000	60 067 000
%		10.7	56.7	32.6

Source: INEGI, 1984.

* In thousand current pesos and percentages

Table 18
Mexico: Facilities and per capita expenditure by health care sector, 1972-1983

		Population to be attended (millions)	Doctors (000)	Hospital beds (000)	Nurses (all levels) (000)	Per capita expenditure (1978 pesos)
1972	SSA	39.5	0.25	0.64	nd	180
	IMSS	11.6	1.20	1.77	1.81	2866
	ISSSTE	1.8	2.30	1.57	2.39	3784
1978	SSA	47.8	0.45	0.86	nd	305
	IMSS	19.8	1.07	1.83	1.73	2587
	ISSSTE	5.0	1.26	0.95	1.36	4901
1983	SSA	51.42	0.32	0.69	nd	169*
	IMSS*	27.0	1.27	1.58	1.75	1829*
	ISSSTE*	5.8	1.82	0.98	2.30	3092*

Source: Ward, 1986, p. 112.

Table 19
Mexico: Facilities per health care institution, 1965-1980

Year	SSA	IMSS	ISSSTE
1965			
External consultation	n.a.	764	n.a.
Hospital units	n.a.	106	n.a.
Doctors	n.a.	7,899	n.a.
Paramedical	n.a.	14,794	n.a.
1970			
External consultation	1,506	742	606
Hospital units	537	108	30
Doctors	6,357	11,709	3,693
Paramedical	11,828	20,433	4,263
1980			
External consultation	1,881	1,030	947
Hospital units	443	182	55
Doctors	13,491	28,552	7,940
Paramedical	22,620	52,811	9,861

Source: INEGI, 1984.

Table 20
Mexico: Distribution of personnel by state, 1970

State	*Inhabitants per medical personnel*	*Inhabitants per paramedical personnel*	*Inhabitants per administrative personnel*
Aguascalientes	1,778	875	1,076
Baja California	1,599	761	1,113
Baja California Sur	1,132	649	577
Campeche	1,657	863	1,105
Coahuila	1,059	517	709
Colima	1,497	879	960
Chiapas	4,139	2,459	2,753
Chihuahua	1,784	938	1,185
Distrito Federal	474	231	247
Durango	2,432	1,146	1,683
Guanajuato	3,266	1,636	2,110
Guerrero	3,713	1,938	2,898
Hidalgo	3,363	2,013	2,080
Jalisco	1,513	884	1,294
México	4,096	2,218	3,257
Michoacán	2,520	1,802	2,140
Morelos	1,706	843	1,151
Nayarit	2,542	1,819	2,734
Nuevo León	1,107	456	763
Oaxaca	5,412	3,422	4,315
Puebla	2,370	1,299	1,920
Querétaro	2,292	1,179	1,659
Quintana Roo	1,466	977	1,189
San Luis Potosí	2,176	1,292	1,718
Sinaloa	1,979	1,045	1,339
Sonora	1,130	585	756
Tabasco	2,642	1,628	2,182
Tamaulipas	1,224	801	823
Tlaxcala	3,097	2,419	2,752
Veracruz	1,593	1,139	1,273
Yucatán	1,038	692	889
Zacatecas	3,718	2,339	3,306

Source: Aspe and Beristain, 1984, p. 315.

Table 21
Mexico: Health care coverage
by State, 1978
(in percentages)

State	Population	Social security coverage	Open population coverage
Total	100.0	100.0	100.0
Chiapas	3.1	1.1	1.5
Guerrero	3.2	1.5	2.3
Oaxaca	3.4	1.2	1.7
Hidalgo	2.2	1.3	2.3
Puebla	4.?	3.1	4.4
Tlaxcala	0.7	0.3	0.8
San Luis Potosi	2.4	1.9	2.1
Zacatecas	1.7	0.7	1.5
Guanajuato	4.3	3.0	3.4
Michoacan	4.3	2.1	4.8
Queretaro	1.0	0.9	0.8
Tabasco	1.7	0.9	2.4
Veracruz	8.0	6.7	5.7
Campeche	0.6	0.7	0.6
Quintana Roo	0.3	0.3	0.3
Yucatan	1.5	2.1	2.2
Durango	1.8	1.3	1.3
Nayarit	1.1	1.3	1.3
Sinaloa	2.9	3.1	1.7
Aguascalientes	0.7	1.0	0.4
Colima	0.5	0.6	0.5
Jalisco	6.8	6.7	7.8
Coahuila	2.1	4.6	2.3
Chihuahua	3.3	3.2	3.7
Nuevo Leon	3.9	5.7	3.9
Tamaulipas	3.0	3.5	2.9
Baja California Norte	2.2	2.0	2.1
Baja California Sur	0.3	0.3	0.5
Sonora	2.3	2.9	3.5
Morelos	1.4	1.2	1.8
Valley of Mexico*	24.6	35.3	32.1

Source: COPLAMAR, 1982, VOL. 4, p. 182

*Includes the Federal District and the State of Mexico
Note: The states are ordered according to the degree of marginality derived by COPLAMAR.

Table 22
Mexico: Mortality rate by State, 1970-1975
(per 1,000 inhabitants)

State	Rate	
	1970	1975
Aguascalientes	11.3	7.8
Baja California	8.1	5.7
Baja California Sur	6.5	6.2
Campeche	7.8	6.3
Coahuila	10.4	7.4
Colima	10.2	7.5
Chiapas	11.3	7.9
Chihuahua	8.8	6.6
Distrito Federal	9.6	5.9
Durango	7.4	5.8
Guanajuato	12.3	8.8
Guerrero	8.3	6.4
Hidalgo	12.1	9.5
Jalisco	10.2	7.4
México	10.5	7.0
Michoacán	8.7	7.2
Morelos	5.6	6.3
Nayarit	8.3	5.6
Nuevo León	7.4	5.4
Oaxaca	15.3	11.3
Puebla	11.8	10.7
Querétaro	12.0	8.4
Quintana Roo	5.0	3.7
San Luis Potosí	11.2	8.5
Sinaloa	6.8	5.5
Sonora	8.2	6.5
Tabasco	8.8	6.4
Tamaulipas	7.5	5.5
Tlaxcala	13.6	10.8
Veracruz	9.3	6.9
Yucatán	10.0	8.3
Zacatecas	9.7	7.1

Source: Aspe and Beristain, 1984, p. 309.

Table 23
Mexico: Incidence of expenditure on health by income stratum, 1968 (in percentages)

Income Strata (in yearly pesos per family)	Families Accumulated (percent)	Income Accumulated (percent)	Incidence (percent)
Up to 2,700	4.31	0.39	16.78
2,700.01 to 4,800	12.87	1.67	7.41
4,800.01 to 8,400	30.67	6.12	2.27
8,400.01 to 15,000	55.72	17.07	0.91
15,000.01 to 26,400	75.46	31.62	0.52
26,400.01 to 48,000	89.01	50.01	0.29
48,000.01 84,000	95.69	66.42	0.18
84,000.01 to 151,200	98.20	77.85	0.12
more than 151,200	100.00	100.00	0.04
Total			0.52

Source: Reyes Heroles, 1976, p. 237.

Table 24
Mexico: Fiscal cost of food subsidies, 1965-1982

Year	Operational Deficit of CONASUPO	Transfers to CONASUPO as a Share of Total Public Expenditures	Deficit as a Share of GDP With Capital Outlays	Deficit as a Share of GDP Without Capital Outlays
	(current Mex $/million)			
1965	738	1.2		
1966	1,119	1.1		
1967	1,221	1.1		
1968	764	1.0		
1969	1,198	1.7	0.15	0.34
1970	650	1.4	0.14	0.40
1971	665	1.5	0.12	0.21
1972	659	1.3	0.27	0.31
1973	1,828	0.8	0.63	0.30
1974	5,653	2.3	0.79	1.00
1975	8,731	1.7	0.24	0.27
1976	3,261	0.9	0.40	0.41
1977	7,424	1.3	0.45	0.46
1978	10,520	2.0	0.22	0.43
1979	6,778	1.6	0.35	0.66
1980	27,827	2.4	1.37	1.37
1981	80,374	2.8	0.90	0.90
1982	82,892	2.4		

Source: Lustig, 1986, pp. 17 and 18.

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