

MEXICAN SOCIAL SECURITY  
AND UNINSURED SOCIAL CARE SYSTEMS  
BY JAMES W. WILKIE

REPORT TO THE WORLD BANK

May 15, 1991

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## PREFACE

The purpose here is to analyze some major aspects of Mexico's social security and social care systems in order to show the predicaments which have arisen, and to suggest some decisions that must be made to reorganize agencies, programs, and operating procedures along more rational lines. The importance of government social programs to Mexico's over 80 million persons is manifest and what happens in Mexico is of major significance to the world as Mexico's population expands to about 100 million by the year 2000.

Distinction is made between population that is insured by the social security institutes and the population that is not insured but protected by public agencies for health and housing. The former includes mainly the:

- Mexican Social Security Institute (IMSS);
- Social Security Institute for Government Workers (ISSSTE);
- Mexican Worker Housing Institute (INFONAVIT).

The public agencies caring for the uninsured population are several and especially include here the:

- Secretariat of Health (SS);
- Fund for Popular Housing (FONHAPO).

In taking up problems with the the national retirement system, several complexities are noted which compromise the idea of privatizing the retirement portion of IMSS activity. On the one hand, retirement under IMSS (and under ISSSTE) does not provide a livable pension as the system stands; but on the other hand, the funds ostensibly accumulated for retirement give the IMSS operating funds to meet Mexico's needs of expanding IMSS programs to cover the population unprotected by health coverage.

There are no easy answers to Mexico's problems in the social sphere. Many agencies and programs have grown to take advantage of one time frame, and new times now call for new solutions. Many old solutions were logical

given past conditions, and they have created their own imperative which is logical in an illogical situation. Further, as we will see below, some decisions that need to be made may cancel the logic of each other because some problems and decisions are overlapping rather than mutually exclusive.

To help Mexico make hard decisions that could begin to overcome predicaments in Mexican social security, housing, and health care, it is proposed here that the World Bank grant three loans. One loan would go to IMSS, one to INFONAVIT, and one to SS. These loans of perhaps 100 million dollars each would assist Mexico in establishing health and housing on a healthier basis and reestablish financial equilibrium in social expenditures by the government.

With regard to the many observations made in this study, two stand out. First, while the World Bank support of low-cost housing for non-salaried workers is important, the Bank should also support more fully the social security and social care needs of the salaried population that contributes so much to the economy. The World Bank loans suggested in this study would reward an economically productive sector of society that reduces its birth rate to more manageable levels. Second, the loans would be aimed at checking the decline in morale and services of the social agencies that are in a state of national catastrophe.

About the predicament of the ISSSTE, it is suggest here that it can be somewhat resolved if the Mexican government pays its premiums that it is withholding in order to offset its heavy outlays in other areas and in order to show its national deficits in a better light. At present ISSSTE is so pinched for funding that it cannot even adequately reform its inefficient system. Furthermore, ISSSTE needs to be coordinated with IMSS.

In developing an independent analysis of Mexican social data, this study reorganizes and creates new statistical categories in order to

challenge some of the myths that have arisen through government reports which too often put data in a light that is uncritical of social security, health care, and housing problems. The analysis here suggests important areas for which research needs to be undertaken. Because social security and social care issues are constantly changing in Mexico, research needs to be ongoing. Unfortunately, little investigation has been undertaken or is underway. It is hoped this study will stimulate Mexican researchers to inquire into topics taken up here as well as to inquire into social assistance.

This study was developed in three stages. The first involved conducting research in Mexico City and the writing of a preliminary report dated August 1988, entitled "Social Security and Health Programs in Mexico to 1988." The second stage involved research in Mexico City to write a second draft in August 1989, entitled "Mexican Social Security and Health Care." Following research in Mexico during March and April 1990, the body of this present analysis was completed by expanding, revising, and going beyond the earlier drafts. The Epilogue was written based upon follow-up research in early 1991.

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## THE MEXICAN SOCIAL SECURITY AND UNINSURED SOCIAL CARE SYSTEMS:

### I. Introduction

#### A. Predicaments and Decisions

Until 1982 the Mexican social security system rose with ostensible success to provide expanding coverages for an ever increasing number of insured persons. Since 1982 and the onset of Mexico's economic crisis, the system has been limited by at least 6 predicaments for which some 13 key decisions need to be made explicitly. Each predicament juxtaposes issues rooted in the ways Mexico has developed social security within the possibilities of different historical moments. In the process of developing social protection for insured and uninsured sectors of society, the government made many implicit rather than explicit decisions. These predicaments and decisions faced by the government of Mexico are as follows:

##### Predicaments:

1. Declining national economic base **versus** rising demand for services;
2. Middle class recourse to system **versus** system capacity to serve lower class;
3. Need for local control **versus** federal standards and economies of scale;
4. Use of premiums only for insurees **versus** use also for uninsured poor;
5. Restriction of funds for specific coverages **versus** pooling of funds;
6. Implicit privatization of health services **versus** explicit privatization.

## Decisions:

1. Separating social security and health functions **versus** merger of functions;
2. Operational efficiency **versus** inefficiency as means of limiting costs
3. Cost efficiency **versus** duplication of agencies
4. Modernization of operations **versus** bureaucrats, unions, and high costs
5. Renewal of physician morale **versus** unionized, anti-professional labor regime
6. Rewarding the worker with health and housing **versus** rewarding the poor
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11. Saving to meet future obligations **versus** day-to-day program expenditures
12. Need for endowment base **versus** limited ability to increase payroll-tax base
13. Expansion of operating funds **versus** phase-out of government contributions

Mexico's economic problems since 1982 have brought to the surface contradictions in policy and operation of the system which can no longer be ignored. Meanwhile, established patterns in administering social

security needs have created realities and interest groups which condition any reform attempts. Furthermore, clear decisions are not easy because issues often overlap and contradict each other in the complicated context of financial scarcity.

Solutions to the social security predicament in Mexico interlock with 16 related problems (also discussed below), the resolution of which will determine the future effectiveness of social security in Mexico. The analysis developed here involves the ability of Mexico to maximize efficient growth in and funding of its social programs.

The advantage of the Mexican social security system, which has grown into 4 distinct agencies to meet spontaneous needs since establishment in 1943 of the Instituto Mexicano de Seguridad Social (IMSS), is that it has been able to provide immediate social benefits for a population seriously affected by the decline of the Mexican economy since 1982. The disadvantage is that because of increasing life expectancy, it must now develop reserves to cover retirements which hitherto could be ignored as few persons reached retirement age.

The major social security agency, IMSS, faces a special problem. Because of its organizational capability, it has had to assume a growing body of responsibilities that have come to compromise its roles and threaten its financial future. At the same time, systemic problems in modus operandi of the system can no longer be ignored.

To understand how the present and future predicaments of the social security system have come about as well as to suggest difficult solutions, we must look at the system's history and depict how it has come to function. To this end we need to take up the following topics:

- definition of social security in theory and Mexican practice which distinguishes between social security programs and social care

services;

- history of Mexico's social security for nongovernmental (IMSS) and governmental employees (ISSSTE);
- growth of social security coverage;
- social security and health coverage by 1988;
- measurement of economic sectors affected by social security;
- categories of persons covered by IMSS and ISSSTE;
- geographical distribution of major social security services;
- 16 sample problems facing IMSS; the distorted importance of IMSS in the social care sector;
- the role of the Secretariat of Health (SS) in relation to IMSS;
- IMSS and housing under INFONAVIT (Worker Housing Institute);
- Social security for government workers, state oil company workers, and the military;
- unfunded present and future obligations of the social security system;
- proposals for improving social security and social care;
- future studies needed.

#### **B. Definition of Social Security and Uninsured Social Care in Mexico**

In the narrowest definition of social security, the concept involves theoretically the operation of a public or private social security agency that insures permanently employed workers through their own and employer contributions after registration of themselves and their families. The **narrow definition** covers:

1. occupational hazards, disability, and involuntary retirement owing to invalidity;
2. old-age retirement and health coverage;
3. death.

In the broadest definition, however, social security means national

funding and/or regulation of the above listed protections plus the making available of at least 9 other benefits to the entire population (disregarding age and whether or not registered). The **broad definition** extends the concept of social security to 9 additional aspects:

4. health care (including maternity benefits);
5. unemployment benefits;
6. job training and/or retraining;
7. housing;
8. low-interest loans to buy home, auto, and consumer goods;
9. special stores selling food and consumer goods at a discount;
10. family assistance (including family allowances, child health, and child-care centers);
11. vacation centers;
12. cultural benefits.

In Mexico the government has meshed these narrow and broad definitions to cover groups in the entire population according to two levels: (A) **social security programs** for qualifying, registered, and premium-paying workers and their families; and (B) **social care services** with minimum (if any) qualifying rules and without the need to register or to pay premiums in order to be served.

A. Social security programs are for workers who are registered with the government to pay a share of their income toward insurance and/or who are employed by firms registered to contribute to insurance of their workers. This coverage includes all of the above 12 categories and is reserved through IMSS for the self-employed and for workers employed by the private sector and by the parastatal sector of decentralized and autonomous government agencies. Coverage of the 12 categories for central

government employees is reserved through 3 social security agencies run for bureaucrats.

The 4 agencies of the social security system, then, are:

- IMSS** Instituto Mexicano de Seguro Social (for private employees and most parastatal employees)
- ISSSTE** Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (for central government employees and some parastatal employees);
- ISSFAM** Instituto de Seguridad Social para las Fuerzas Armadas Mexicanas (which here includes the health services of the Secretaría de Defensa and Secretaría de Marina, which it oversees);
- PEMEX-PSSS** Petróleos Mexicanos-Programas de Seguridad y Servicios Sociales (for oil workers--implicit PSSS acronym supplied here).

The IMSS was established with the goal of providing coverage for the private sector but immediately came to include parastatal employees. All of the agencies emphasize health benefits for employees and their families, not just for retirees.

Two auxiliary social security agencies provide worker housing, as follows:

- INFONAVIT** Instituto del Fondo Nacional para la Vivienda de los Trabajadores, for workers insured by IMSS;
- FOVISSSTE** Fondo de Vivienda para los Trabajadores del ISSSTE, for insured government workers.

Employers pay into INFONAVIT on behalf of workers registered in IMSS; and the government pays into FOVISSSTE on behalf of workers registered in ISSSTE.

Social security units giving insured workers access to discount

goods and consumer credit are operated by ISSSTE, PEMEX, ISSFAM, and by:

**FONCACOT** Fondo Nacional para el Consumo de los Trabajadores, a separate agency for workers covered by IMSS.

B. Social care services are for persons who are not registered to pay a share of their income and/or do not have an employer contributing to social insurance on their behalf. This coverage is restricted to the following items of the 12 listed at the outset: 4 (limited health), 7 (limited housing), and 10 (limited child assistance). Mexico has never been able to afford a national system of unemployment benefits for persons not registered in social security agencies.

To meet social care needs of the the population which does not qualify for social security coverage, Mexico has developed the following agencies:

Major:

**SS** Secretariat de Salud;  
**IMSS-COPLAMAR** IMSS-Coordinación General del Plan Nacional de Zonas Deprimidas y Grupos Marginados;

Minor:

**DIF** Sistema Nacional de Desarrollo Integral de la Familia;  
**INDS** Institutos Nacionales Descentralizados de Salud (implicit acronym supplied here); see table 25;  
**INI** Instituto Nacional Indigenista;  
**DDF-PM** Departamento del Distrito Federal-Programas Médicos (implicit PM acronym supplied here);  
**STC-PM** Sistema de Transporte Colectivo-Programas Médicos (for only 8,830 Mexico City Metro workers and 35,320 family members--PM acronym is implicit).



**FONHAPO**

Fondo Nacional de Habitaciones Populares.

Beyond the agencies involved in social security and social care, we must define key concepts in social security terminology, as follows:

- Permanent Employees** -Workers eligible for **continuous** social security coverage while they are properly subscribed as non-temporary and non-occasional insurees); "permanent" employees include employees of firms who register with social security as well as, for example, persons registered with IMSS as independent (self-employed) workers, former employees voluntarily continuing in IMSS, and since 1987) persons enrolled as students who are otherwise not covered by IMSS through their parents--"permanent" does not refer to "job security," but rather to the fact that premiums and insurance continue without interruption;
- Workers Insured** -Permanent employees entitled to social security benefits--see directly above;
- Persons Covered** -Permanent employees, temporary/occasional workers, pensioners, and family members of these groups;
- ICVM Coverage** -Invalidez (invalidity), vejez (old-age beginning at age 65), cesantía (lay-off owing to old age beginning at age 60), muerte (death);
- Integral Salary** -Base pay, vacation pay, yearly bonus, income from profit sharing, and value of food and housing);
- Core Region** -Valley of Mexico (Federal District (including Mexico City), and entire state of Mexico, with which Mexico City is continuing to overlap.

In examining the past, present, and future of the social security system and health agencies in Mexico, I argue that the social security system has become trapped in the 6 predicaments listed at the outset:

1. Declining national economic base **versus** rising demand for services;
2. Middle class recourse to system **versus** system capacity to serve lower class;
3. Need for local control **versus** federal standards and economies of scale
4. Use of premiums only for insurees **versus** use also for uninsured poor;
5. Restriction of funds for specific coverages **versus** pooling of funds;
6. Implicit privatization of health services **versus** explicit privatization.

First let us turn to the past.

## II. Mexico's Social Security System

### A. History of Mexico's Social Security System

The establishment and expansion of social security has been a major goal of Mexican governments since the nineteenth century. Mexican social security legislation originally provided civil servant retirement pensions beginning in 1824, and survivor and disability pensions in the early 1830s.

Since the 1920s the Official Party in Mexico (formally established in 1929) has passed laws and collective bargaining agreements to extend retirement, survivor, and disability pensions to an ever expanding number of groups as shown in the following examples:

1925 federal employees

- 1926 military
- 1928 federal teachers
- 1935 petroleum workers
- 1936 railway workers
- 1941 electrical workers
- 1943 blue- and white collar-workers
- 1954 permanent rural wage-earners, small farmers, and  
ejidatarios belonging to coops and credit associations
- 1960 temporary workers and seasonal rural wage-earners
- 1963 sugar workers
- 1971 henequen and tobacco workers
- 1973 domestic servants and urban and rural self-employed
- 1974 coffee and palm workers
- 1983 state and municipal government workers
- 1987 taxi drivers of the Federal District;  
preparatory and university students lacking coverage  
through parents.

But through time Mexico's emerging social security programs have not come to stress pensions. Rather they have emphasized health care (including maternity benefits) and protection against occupational hazards. By 1904 state governors began to offer protection against occupational hazards (mainly accident, disease, and unsafe labor conditions), which the federal government began to extend to its employees in 1925. Health insurance began to be important in the late 1920s, with maternity benefits also coming to the fore beginning in 1943. Child-care centers, which had been available to some government employees since the 1920s were generally provided under social security agencies beginning in 1962. Since 1987 some 500,000 preparatory and university students without social security coverage

through their parents have gained health care, including coverage for medicines, hospitalization, and surgery.

International comparison of Mexico's social security coverage is instructive. For example, Mexico's system differs greatly from that of the United States. In contrast to U.S. social security which emphasizes old-age retirement and old-age health benefits for eligible retirees, social security in Mexico emphasizes the protection of eligible workers through health and maternity benefits as well as disability, accident, and lay-off insurance during their years of employment. Both Mexico and the United States base social security upon worker and employer contributions.

#### **B. Growth of Social Security Coverage in Mexico**

IMSS was established in 1943 by President Manuel Avila Camacho (1940-1946) as the decentralized government agency in charge of autonomously administering health and maternity benefits, workmen's compensation for occupational hazards, disability, and old-age and survivors' pensions for covered private-sector and parastatal groups of eligible blue- and white-collar workers and their families. President Lázaro Cárdenas had wanted to establish an IMSS from 1934 to 1940, but could not do so in the face of his ambitious programs to promote worker rights (by distributing land to peasants and encouraging political strikes in private factories) and to nationalize industry (such as the railways and oil fields). Also pressure began to build after 1941 to match war-time inflation with wage increases. Although some commentators saw the 1943 founding of the IMSS as a way of avoiding the necessary wage increases (indeed, real wages continued to fall through 1947 and remained problematic until after 1960), the establishment of the IMSS could no longer be delayed, especially as the economy stabilized after 1940 with the curtailment of land reform and political strikes. (On the context of change

in Mexico, see Wilkie, 1990b.) The IMSS organization, coverages, and waiting periods for financial benefits are outlined in Appendixes 1, 2 and 3.

To cover government workers, the Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (ISSSTE) was established in 1959 by President Adolfo López Mateos (1958-1964) as the decentralized government agency to coordinate benefits for the employees of the three branches of the central government, the Federal District, and the parastatal agencies not enrolled in IMSS. (The military and state oil company were already covering their employees and their programs have remained separate from ISSSTE.)

The impetus for ISSSTE arose in 1958 amid general strikes by railway workers, telephone and telegraph workers, and teachers (among other groups). President López Mateos, who had been Secretary of Labor during the period from 1952 to 1958, created ISSSTE as one important way of discouraging further strikes and a way of encouraging the under-paid bureaucracy to support the government. In addition to offering the same coverages as the IMSS, the ISSSTE generally offers higher quality medical service than does IMSS. Further, during the early 1970s ISSSTE funds became available for low-interest loans to members wishing to buy a home and automobile or needing funds for personal reasons.

Workers insured by IMSS and ISSSTE have benefitted since the early 1970s from the ability to buy into government-built apartment housing and to purchase consumer goods in government-run stores. For workers registered in ISSSTE, the government builds apartments through its FOVISSSTE (Fondo de la Vivienda para los Trabajadores del ISSSTE), which it sells on favorable terms to state employees. Workers insured under IMSS, however, are housing beneficiaries for housing through INFONAVIT--Instituto del Fondo Nacional

para la Vivienda de los Trabajadores. Whereas ISSSTE makes housing loans (by lottery), auto and consumer loans, and operates its own discount stores which sell appliances, furniture, food, and other products on favorable terms, IMSS insurees have access to products and inexpensive terms through FONACOT--Fondo Nacional para el Consumo de los Trabajadores.

Other agencies have been dedicated to social security but few have survived without being folded into IMSS or ISSSTE. For example, the autonomous sugar workers' agency was soon incorporated into IMSS as were in 1980 the agencies of the railway workers and electrical workers. The autonomous social security program of the Secretaría de Hacienda y Crédito Público was incorporated into ISSSTE in 1982 (BANAMEX, México Social 1984, p. 94).

Surviving apart from IMSS and ISSSTE are two social security agencies considered strategic to the Mexican government, one is an office in Petróleos Mexicanos (PEMEX, the state oil company), the office here being called PEMEX-PSSS which grew up after nationalization of the oil in 1938. The other is the Instituto de Seguridad Social para las Fuerzas Armadas (ISSFAM, the Armed Forces Social Security Institute), which was established in 1976 to bring together programs separately administered by the army, navy, and air force. Each also offers loans to its insurees for the purchase of housing, auto, and consumer goods as well as runs discount stores for all persons whom they cover.) PEMEX and ISSFAM are reluctant to release much data to the public on the number and status of employees in these agencies, which do not necessarily respond to inquiries even from other government agencies that need to complete their picture of the social security scene in Mexico.

### C. Social Security and Health Coverage by 1988

The coverage of Mexican social security and health care can be calculated for (i) permanent workers and for persons covered as a share of (ii) economically active population--EAP, (iii) labor force, or (iv) total population. Tables 1, 2, 3, and 4 show these options for social security. Table 5 shows the extent to which public health care is available to the total population.

First, with regard to permanent workers enrolled in social security agencies in relation to the 24 million EAP (including persons openly unemployed for less than 12 weeks), Table 1 shows that by mid-1988 about 40% of the EAP is directly insured by the social security system. Some 19% are self-employed and outside the system but theoretically capable of paying for private health and disability insurance and for private retirement plans. And some 41% are under- or un-employed and too poor to pay for private social security.

Second, in terms of the labor force permanently insured by social security, Table 2 shows that 43% of the 22.5 million workers in the force (which excludes the openly unemployed) are now directly insured, up from 22% in 1969. This marks a gain of 1.1% yearly during the last 19 years.

Third, in terms of Mexico's total population, all persons covered by IMSS and ISSSTE (including permanent workers, temporary/occasional workers, pensioners, and family members in each of these groups) have grown from only 11% in 1960 to 50% in 1988 (as seen in Table 3, column F).

When the smaller social security agencies are added into the population coverage in Table 4, the share of persons covered rises from 50% to 52%. This can be compared to an alternative view in which by counting only the population benefitting from access to health services, the share

TABLE 1

WORKERS IN EAP PERMANENTLY INSURED BY SOCIAL SECURITY IN MEXICO,  
MID-1988

(Excludes Workers Covered Temporarily/Occasionally;  
Pensioners; and Family Members)

<u>Million</u>	<u>Category</u>	<u>Percent</u>
24.00	<b>EAP (Economically active population)</b> of which	<b>100%</b>
9.65	<b>9.65 salaried- and wage-earners</b> <b>covered by social security systems</b> <sup>1</sup> as follows	<b>40%</b>
7.50	blue and white collar in IMSS <sup>2</sup>	78%
1.60	civil servants/police in ISSSTE <sup>3</sup>	17
.25	petroleum workers in PEMEX <sup>4</sup>	2
.30	military forces in ISSFAM <sup>5</sup>	3
<u>9.65</u>	million persons	<u>100%</u>
4.50	<b>4.50 self-employed not covered</b> as follows	<b>19%</b>
2.50	agricultural workers <sup>6</sup>	
1.50	non-agricultural workers <sup>6</sup>	
.50	employers	
<u>4.50</u>		
9.85	<b>9.85 under- and un-employed not covered</b> <sup>6</sup> as follows	<b>41%</b>
8.35	underemployed (32% of EAP) <sup>7</sup>	
1.50	open unemployed ( 6% of EAP) <sup>7</sup>	
<u>9.85</u>		

1. Includes some self-employed.
2. Instituto Mexicano de Seguridad Social.
3. Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado. Includes "de base" workers only.
4. Petróleos Mexicanos.
5. Instituto de Seguridad Social para las Fuerzas Armadas Mexicanas.
6. Includes workers in informal economy. Excludes coverage by IMSS-COPLAMAR.
7. Open unemployment (1.50 million) subtracted from EAP (24.00 million) equals labor force (22.50 million).

Source: Developed from official data of the IMSS, ISSSTE, and interviews with high Mexican government officials.



SHARE OF LABOR FORCE PERMANENTLY INSURED BY MEXICAN SOCIAL SECURITY  
IN 1969 AND 1988

(Excludes Workers Covered Temporarily/Occasionally;  
Pensioners; and Family Members)

<u>Year</u>	<u>Labor Force Million</u>	<u>Insured Million</u>	<u>Insured as Percent of Labor Force</u>
1969 <sup>a</sup>	12.99	2.82 <sup>c</sup>	22%
1988 <sup>b</sup>	22.50	9.65	43%

a. 1969-1970.

b. Mid-1988.

c. Adjusted here for comparability by deducting .70 million workers covered temporarily.

Source: 1969 from Carmelo Mesa-Lago, Social Security in Latin America; Pressure Groups, Stratification, and Inequality (Pittsburgh: University of Pittsburgh Press, 1978), p. 235.

1988 calculated from table 1.

## PERSONS COVERED BY IMSS AND ISSSTE AS SHARE OF POPULATION AND EAP, 1960-1988

(Includes Permanent Workers; Temporary/Occasional Workers;  
Pensioners; Family Members)

Year End	Million Covered <sup>1</sup>			Million		%	
	A. IMSS	B. ISSTE <sup>2</sup>	C. Covered <sup>3</sup>	D. Population	E. EAP	F. Cov./Pop. <sup>4</sup>	G. Cov./EAP <sup>5</sup>
1960	3.4	.5	3.9	36.1	11.3	11	35
1969	9.1	1.9	11.0	48.9	12.8	22	86
1979	21.0	4.9	25.9	67.4	21.2	38	122
1988	34.1 <sup>a</sup>	7.4 <sup>b</sup>	41.5	83.3	24.0	50	173

1. In 1988, IMSS and ISSSTE include 97% of all persons covered by social security system --see table 4, below.
2. ISSSTE permanent workers are termed "de base"; temporary workers are "no de base."
3. Includes railway workers throughout; adjusted to exclude military and PEMEX workers in 1969.
4. C/D.
5. C/E.

- a. Mid-1988.  
b. Dec. 1987.

Source: A to C, 1960: Mesa-Lago, Social Security in Mexico, p. 231, except ISSSTE data calculated here as residual from total using IMSS data in Instituto Mexicano de Seguridad Social, Memoria Estadística, 1975, p. 69.

1969: Ibid.

1979: IMSS, Memoria Estadística, 1986, p. 45 and Latin American Health Handbook, 1984 (Westchester, New York: Robert S. First, Inc. p. 703.

1988: Data supplied by statistical offices of IMSS and Instituto de Seguridad y Servicios Sociales de los Trabajadores.

D: from Statistical Abstract of Latin America, vol. 26 (1988), p. 78, except 1988 estimated by high government officials in Mexico.

E: from Nacional Financiera, Mexico en Cifras, 1986, p. 27, with number interpolated for 1969 and 1979; data for 1988 from table 1, above.

F to G: Calculated.

TABLE 4

## MEXICAN POPULATION COVERED BY SOCIAL SECURITY SYSTEM, MID-1988

<u>A.</u> <u>System</u>	<u>B.</u> <u>Million</u> <u>Covered</u>	<u>C.</u> <u>% of</u> <u>Population</u>	<u>D.</u> <u>% of Population</u> <u>Covered</u>
IMSS <sup>1</sup>	34.1 <sup>a</sup>	40.1	79.5 <sup>b</sup>
ISSTE <sup>1</sup>	7.4	8.9	17.2
PEMEX-PSSS	.9	1.1	2.1
ISSFAM	<u>.5</u>	<u>.6</u>	<u>1.2</u>
Total	42.9	51.5	100.0

1. IMSS (with 79.5% of all system members) and ISSSTE (with 17.2% of all system members) include 96.7% of all persons covered by social security.

a. Excludes .5 million preparatory and university students covered since 1987 but not incorporated into statistics until December 1988.

b. Inclusion of students would yield a .2% change in this total.

Source: Column B: IMSS and ISSTE from table 3, above;

PEMEX and ISSFAM estimated here for 1988 extrapolating from data in table 5, part 1.

Column C: Data in column B divided by 83.3 million total population, as given in table 3.

Column D: Data in column B divided by 42.9 million covered population

of covered population is seen to have reached 60% in 1983. As we have seen here, this is a questionable approach; indeed another view the total coverage for 1983 can be set at 45% excluding persons covered only for health benefits (cf. Mesa-Lago, 1985, pp 138 and 314).

During the last 19 years, then, IMSS and ISSSTE combined coverage of the total population has increased at a rate of 1.5% yearly. The share of population covered by IMSS and ISSSTE (which together account for 97% of persons covered under the social security system, as seen in Table 4) grew so that it surpassed the size of the EAP during the 1970s by 73% in 1988 (Table 3, column G.)

Fourth, in terms of total population with access only to health services, Table 5 gives two estimates, one official and one independent. The official estimate for 1985 (published in 1987) claims that 87% of the country's 77.94 million people had access to government health care either through the social security system or through agencies such as the Secretariat of Health. In this view, 13% of the population was without access to government health care.

The independent estimate given in Table 5, however, suggests that only 79% have recourse to health protection--8% less than given in the official figures. Thus the share of unprotected population goes to 21%, or 8% worse than the official data. The independent estimate gives a breakdown of the 79% coverage as follows: 43% by the social security system, 12% by the Secretariat of Health, and 24% by IMSS-COPLAMAR.

COPLAMAR (Coordinación General del Plan Nacional de Zonas Deprimidas y Grupos Margindados) was established in 1977; and in 1979 it joined with IMSS. Its purpose was to begin providing health and maternity care, staple foods, clean drinking water, and improved housing for depressed zones and marginalized groups. But it was health care which stood out as the major

TABLE 5

ALTERNATIVE ESTIMATES OF  
PERSONS WITH ACCESS TO GOVERNMENT FUNDED HEALTH CARE IN MEXICO

Part 1: Official Estimate

December 1985

<u>Million</u>	<u>Population</u>	<u>Percent</u>
<b>77.94</b>	<b>Total population<sup>1</sup></b>	<b>100%</b>
	of which	
<b>67.72</b>	<b>million persons with access to government health care</b>	<b>87%</b>
	29.34 million covered by social security	38%
	21.64 IMSS	73.8%
	6.44 ISSSTE	21.9%
	.81 PEMEX-PSSS	2.8%
	.45 ISSFAM	1.5%
	<u>29.34</u> Sub-total	<u>100.0%</u> Total Percent
	38.38 million with possibility of coverage outside of social security	49%
	22.83 via Secretariat of Health (SS)	
	10.19 via IMSS-COPLAMAR <sup>2</sup>	
	<u>5.36</u> via other agencies	
	<u>38.38</u> Sub-total	
	<u>67.72</u>	<u>87%</u>
<b>10.22</b>	<b>million persons without access to government health care</b>	<b>13%</b>

1. Total population estimated by source published in 1987.

2. Presumably including DIF, INI, INDS, and DDF-PM.

Source: Secretaría de Salud, Anuario Estadístico, 1985, p. 155.

TABLE 5 (Continued)

## PART 2: Independent Estimate

Mid-1988

<u>Million</u>	<u>Category</u>	<u>Percent</u>
<b>83.25</b>	<b>Total Population</b> (22.5 million labor force <sup>1</sup> times 3.7 persons avg. family size) of which	<b>100%</b>
<b>65.71</b>	<b>million persons with access to government health care</b> as follows via	<b>79%</b>
	35.71 million permanently covered persons social security system	43%
	(9.65 million permanent employees <sup>2</sup> times 3.7 persons avg. family size)	
	30.00 million persons with possibility for treatment outside social security	
	20.00 million via	
	IMSS-COPLAMAR, <sup>3</sup> DIF, <sup>4</sup> INI <sup>5</sup>	24%
	10.00 million via	
	Secretariat of Health	$\frac{12\%}{79\%}$
	<u>65.71</u> Total	
<b>17.54</b>	<b>million without access to government health care</b>	<b>21%</b>

1. Labor force (22.5 million) defined as EAP (24 million) less open unemployed (1.5 million).
2. From table 1.
3. COPLAMAR (Coordinación General del Plan Nacional de Zonas Deprimidas y Grupos Marginados, a joint program with IMSS--Instituto Mexicano de Seguridad Social) was broken up in 1983-1988, with its health facilities being turned over to the ministries of public health in 14 states but retained as part of IMSS in 17 states. Other COPLAMAR functions were distributed among eight different ministries.
4. Sistema Nacional de Desarrollo Integral de la Familia (National System of Family Development). Formerly INPI (Instituto Nacional de Protección a la Infancia).
5. Instituto Nacional Indigenista.

Source: Developed from interviews with high Mexican government officials.

contribution of the plan. IMSS-COPLAMAR aimed at operating 2,000 urban and rural medical units and 52 clinics in Mexico's depressed and marginal zones, with special emphasis on extending modern health care for the first time to isolated rural areas. The plan developed by President López Portillo's government called for building upon an IMSS stock of 310 medical units and 30 clinics to overcome:

- IMSS emphasis under President Echeverría on construction of grandiose urban medical centers,
- the failures of the IMSS and Secretariat of Salubridad to reach many underprivileged people,
- the failure of Echeverría's Social Solidarity Program established in 1974, which had planned to reach 1.5 million poor persons annually between 1975 and 1981. (See Ward, 1986, pp. 116-119.)

Under COPLAMAR regulations, each head of family has to register and spend at least an average of ten days' work in projects and activities organized by COPLAMAR to benefit communities without disrupting the normal productive economy. By the end of 1981 some 6.49 million heads of family had registered for coverage under COPLAMAR and also obtained protection for their dependents (6.85 million more persons). In 1981, 2.14 million persons were actually treated. (See Latin American Health Handbook, 1984, p. 703).

Unfortunately for COPLAMAR, it was partially dismantled under the De la Madrid government for at least three reasons. First, with Mexico's debt problems demanding reduction of federal deficits, the Central government looked critically at all expensive projects no matter what their value in human terms. Second, it was argued that the states could meet local needs more efficiently and more inexpensively than could the giant IMSS bureaucracy; and third that the states would acquire a new role and hence new financial resources, as part of becoming less dependent upon federal

resources. From 1983 to 1988, COPLAMAR was broken up, with its health facilities in 14 states being turned over to state governments. The 14 states are:

Aguascalientes	Morelos
Baja California Sur	Nuevo León
Colima	Querétaro
Guanajuato	Quintana Roo
Guerrero	Sonora
Jalisco	Tabasco
México	Tlaxcala

In 17 states, the IMSS-COPLAMAR arrangement was continued but many of the former functions were turned over to eight different federal ministries. Although IMSS-COPLAMAR continues, then, it does so in a largely defunct way and is vaguely thought by many observers in Mexico City to have been eliminated, because without publicity IMSS-COPLAMAR activities go unnoticed. (COPLAMAR was not intended to serve and never did serve the Federal District.)

With regard to the total population without health care in 1989, some experts claim that in the most positive estimates 30% of the population still lacks access. (See Víctor Soria, Excélsior, May 15, 1989). However, this view is supported only indirectly by such available evidence as the following: budgetary declines during the 1980s, personnel cuts in the public health sector, and the devastating 1985 earthquake which destroyed 30% to 40% of all hospital beds in Mexico. Apparently less than two-thirds of the beds have been restored by 1989.

#### **D. Measurement of Economic Sectors Affected by Social Security**

In Table 6 where the permanent workers insured by social security are broken out by economic sector, the data show that the manufacturing share



SECTORS OF ECONOMIC ACTIVITY FOR PERMANENT WORKERS  
COVERED BY SOCIAL SECURITY IN MEXICO,  
1969 AND 1988

(Excludes Temporary/occasional Workers; Pensioners; Family Members)

Sector <sup>1</sup>	%	
	1969 <sup>a</sup>	1988 <sup>b</sup>
Total	100.0	100.0
Mining	.2	1.0
Petroleum and gas	2.1	3.1
Manufacturing	36.3	26.8
Construction	1.4	2.1
Electricity, water	1.7	1.0
Commerce	15.3	13.4
Transportation, communications	7.2	4.1
Services	9.8	19.6
Government (ISSTE) <sup>2</sup>	12.2	16.5 <sup>c</sup>
Other <sup>3</sup>	13.8	12.4

1. IMSS workers, except for "petroleum and gas" (PEMEX), and except that "Other" includes military as well as some IMSS; some IMSS sectors include parastate government workers.

2. "Government" sector is incomplete because many parastate government workers are distributed among the IMSS sectors listed.

3. Includes agriculture, livestock, forestry, hunting, and fishing; and includes self-employed and military.

a. 3.50 million workers, adjusting source to include .40 million self-employed and military at December 1969.

b. 9.65 million workers at mid-1988.

c. Includes "base" workers; excludes "non-base" workers.

Source: 1969, Adapted from Mesa-Lago, Social Security in Latin America, p. 235.

1988, table 1; and calculated from Instituto Mexicano de Seguridad Social, Informe Mensual de la Población Derechohabiente, May 1988.

of workers permanently insured by the social security system has declined from 36% to about 27% during the last 19 years. Part of this decline is due to unemployment in Mexico's credit-short industrial sector, and part is due to the fact that structural changes have occurred in Mexico's employment. For example, the share of insured workers in services has doubled from nearly 10% to almost 20%.

Although the share of government workers seemingly rose by only about 4 percentage points to near 17% of the country's workers (Table 6), this figure is understated because many worker groups in the parastatal agencies do not belong to ISSSTE but to IMSS and are included in sectors such as services or transportation and communication. The government should be encouraged to refine the way it records data on workers insured according to economic sector.

#### **E. Categories of Persons Covered by IMSS and ISSSTE**

The emphasis of IMSS on serving permanent workers and their families is shown in Table 7, which also reveals the long-standing low beneficiary shares for pensioners (less than 3%) and temporary workers (less than 4%). One problem with regard to pensioners is that to achieve old-age status at age 65, Mexicans must outlive the country's average life expectancy which did not surpass 64.0 years until 1980. (See BANAMEX, Mexico Social, 1984, p. 38). On the one hand, IMSS seems very restrictive with regard to old-age retirement, in that it requires 9.6 years of contributions for eligibility. On the other hand, it is seemingly not so restrictive in awarding disability pensions. In any case, the end result is that the share of pensioned workers remains low.

The low share of temporary workers seen in Table 7 can be interpreted in several ways. Either many temporary workers obtained permanent jobs or else fewer were insured in 1988 relative to the expanding number of permanent workers. If in Table 7 we take into account the family members of

TABLE 7

IMSS: PERSONS COVERED ACCORDING TO CATEGORY,  
1969 and 1988

<u>Year</u>	<u>Total Million</u>	<u>%</u>				
		<u>Total</u>	<u>Permanent Workers</u>	<u>Temporary Workers</u>	<u>Pensioners</u>	<u>Family Members</u> <sup>1</sup>
1969 <sup>a</sup>	9.1	100.0	24.9	7.1	1.8	66.2 <sup>c</sup>
1988 <sup>b</sup>	34.1	100.0	25.7	3.6	2.9	67.8 <sup>d</sup>

1. Includes families of permanent workers, temporary/occasional workers, and pensioners.

a. Dec. 1969.

b. Mid-1988.

c. Includes 2.3% family members of temporary workers.

d. Includes 8.2% family members of temporary workers.

Source: Calculated from Instituto Mexicano de Seguro Social, Memoria Estadística, 1972, p. 76, and Informe Mensual de la Población Derechohabiente, May 1988, table 1.1.

TABLE 8

ISSSTE: PERSONS COVERED ACCORDING TO CATEGORY, 1987<sup>a</sup>

<u>Total Million</u>	<u>%</u>				
	<u>Total</u>	<u>Base</u>	<u>Non Base</u> <sup>1</sup>	<u>Pensioners</u>	<u>Family Members</u>
7.4	100.0	21.2	7.3	1.9	69.6

## 1. Non-permanent workers include:

2.3%	"empleados de confianza" serving at the pleasure of the administration
.2%	temporary/occasional workers
3.1%	consultants, fellowship grantees
<u>1.7%</u>	<u>other</u>
7.3%	Total

## a. Year end.

Source: Calculated from unpublished data supplied by the Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado.

TABLE 9

IMSS: PERSONS COVERED BY PENSIONS ACCORDING TO CATEGORY,  
MID-1988

(Includes Family Members)

Number		%			
<u>Pensioners</u>	<u>Family Members</u>	<u>Absolute Total</u>	<u>Percent Total</u>	<u>Occupational Hazards</u>	<u>Invalidity, Old Age,<sup>1</sup> Lay-Off, Death</u>
				<u>Permanently Unfit</u>	<u>Invalids Aged Laid-Off</u>
				<u>Survivors</u>	<u>Survivors</u>
1,003,126 <sup>a</sup>	729,356 <sup>b</sup>	1,731,412 <sup>c</sup>	100.0	17.0	56.3
				4.1	22.6

1. Age 65, except age 60 if laid-off as being too old to work.

a. 2.9% of 34.1 million.

b. 2.1% of 34.1 million.

c. 5.0% of 34.1 million persons covered by IMSS.

Source: Calculated from Instituto Mexicano de Seguridad Social, Informe Mensual de la Población Derechohabiente, May 1988, table 4.2.

temporary workers, however, IMSS coverage for the temporary category in 1988 was nearly 12% (3.6% plus 8.2%) in 1988, up from 1969 when the figure was 9% (7.1% plus 2.3%).

As IMSS absolute coverage of persons increased from 9.1 million to 34.1 million (almost 275%) between 1969 and mid-1988, the share of family members remained stable. It has held at about 67%, as Table 7 shows, because it does not involve registration, but rather the application of an estimated and fixed ratio of dependents per insured worker.

The distribution of ISSSTE's coverage by category is shown in Table 8. The 70% share of family members covered in ISSSTE's 7.4 million beneficiary population is slightly higher than the IMSS total, but permanent workers constitute 21% or almost 4% less than IMSS. Non-permanent workers in ISSSTE (7.3%) have double the share that they do in IMSS and the share of pensioners is 1% lower at 1.9%.

Although there is no breakdown for the 139,000 ISSSTE pensioners, data do exist for 1.7 million IMSS pensioners. Table 9 shows that 56% of coverage is for persons who are invalids, aged, or laid-off. Survivors constitute 27% of the total (4.1% plus 22.6%) and permanently unfit are 17%.

#### **F. Geographical Distribution of Major Social Security Agencies**

Criticism of the Mexico's social security system has centered on the problem that persons covered tend to live in modern, urban centers. To assess this criticism, let us examine the distribution of IMSS and ISSSTE services, which cover 97% of all persons in Mexico's social security system, as we saw above in Table 4.

(It should be noted, however, that outside the social security system, the Secretariat of Health tries to offer at least basic medical coverage in every part of the country for all persons without regard to any

membership criteria. The role of the Secretariat is treated below.)

IMSS and ISSSTE cooperate with each other only in a limited way to provide health care. Persons covered in ISSSTE may use the more widespread IMSS installations on the condition that a contract has been let to provide IMSS coverage to ISSSTE in specific places where ISSSTE has personnel but no medical services. Otherwise, ISSSTE insurees may not use IMSS medical services (except for emergencies for which they will be charged) because there is no real plan of reciprocity and the agencies do not cross-bill each other for services rendered to individuals.

In 1972 (the eve of IMSS' thirtieth anniversary in 1973), IMSS covered only 29% of Mexico's municipios, as shown in Table 10. (The municipio is roughly equivalent to the U.S. county; in 1988 there were 2,398 Mexican municipios.) The coverage of municipios doubled during the next ten years, reaching 57% in 1982. Extension of coverage to municipios has been slowed in the face of the country's economic crisis; by 1988 the coverage reached only 64%.

The share of municipios included in IMSS differs widely according to region. Although all municipios in the valley of Mexico City (including the Federal District and parts of Mexico state) have been fully protected since at least 1972, municipios outside greater Mexico City had only 28% protection in 1972; this share increased to 63% by 1988. Whereas the states of Nuevo León in the North and Yucatán in the Southeast made great strides toward full coverage of all municipios during the 1970s, Guerrero in the west expanded slowly. Guerrero reached 47% in 1982 and then lost momentum, surpassing 53% only in 1988. Oaxaca in the South has the least municipio coverage of any political unit in Mexico, 19.3% in 1988. What little gains Oaxaca did make came in the 1970s. Data for IMSS coverage are also available in terms of persons covered in urban and rural areas. The rural share reached just 3% in 1969, and 6% in 1988. (See Table 11.) Even if all

TABLE 10  
 IMSS: SHARE OF MEXICAN MUNICIPIOS COVERED,<sup>1</sup>  
 1966-1988

(%)

Year End	Total <sup>2</sup>	Inside Valley of Mexico	Outside Valley of Mexico	Sample States			
				Yucatán	Oaxaca <sup>3</sup>	Nuevo León	Guerrero
1966	19.8	100.0 <sup>a</sup>	19.4 <sup>b</sup>	28.2	3.3	36.5	6.9
1972	28.7	100.0 <sup>a</sup>	28.2 <sup>b</sup>	60.4	4.8	38.5	6.7
1982	57.3	100.0 <sup>c</sup>	56.0 <sup>d</sup>	91.5	17.3	100.0	46.8
1984	59.5	100.0 <sup>c</sup>	58.4 <sup>d</sup>	91.5	19.3	100.0	49.4
1988	63.5	100.0 <sup>a</sup>	63.3 <sup>b</sup>	91.5	19.3	100.0	53.3

1. Instituto Mexicano de Seguridad Social.

2. Absolute number of municipios in 1988 = 2,398.

3. Least covered state in 1988.

a. Only Federal District.

b. Outside Federal District.

c. Includes part of state of Mexico.

d. Excludes part of state of Mexico.

Source: Adapted from Instituto Mexicano de Seguridad Social, Memoria Estadística, 1967, 1972, 1982, 1984; and computer printout for 1988.



TABLE 11

IMSS: URBAN AND RURAL SHARES OF PERSONS COVERED, 1969 and 1988

(Includes Permanent Workers; Temporary/Occasional Workers;  
Pensioners; Family Members)

<u>Year</u>	<u>Total</u>		<u>%</u>		
	<u>Million</u>	<u>%</u>	<u>Urban</u>	<u>Rural</u>	<u>Not Specified</u> <sup>1</sup>
1969 <sup>a</sup>	9.1	100	93	3	4
1988 <sup>b</sup>	34.1	100	89	6	5

1. This category is all pensioners, for whom no urban-rural breakdown given.

a. Dec. 1969.

b. Mid-1988.

Source: Calculated from Instituto Mexicano de Seguro Social, Memoria Estadística 1975, p. 67, and Informe Mensual de la Población Derechohabiente, May 1988, table 1.1.

TABLE 12

IMSS: DEGREE TO WHICH ELEVEN POLITICAL UNITS DOMINATE COVERAGE OF PERSONS  
1969 and 1988

(Includes Permanent Workers; Temporary/Occasional Workers;  
Pensioners; Family Members)

Unit	(%)	
	1969 <sup>a</sup>	1988 <sup>b</sup>
Total Covered Persons <sup>1</sup>	100.0 <sup>c</sup>	100.0 <sup>d</sup>
Sub-Total 11 Units <sup>2</sup>	77.1	71.3 <sup>e</sup>
Federal District <sup>3</sup>	37.5	27.6
State of Mexico <sup>3</sup>		
Jalisco	7.2	8.3
Nuevo León	6.7	6.7
Veracruz	6.8	5.3
Chihuahua	2.5	4.9
Coahuila	3.0	4.0
Guanajuato	3.3	3.8
Baja Calif. Norte	3.4	3.6
Sonora	3.5	3.6
Tamaulipas	3.2	3.5

1. In 32 political units (31 states and Federal District).
2. Units listed according to decreasing share in IMSS total for 1988.
3. Because Mexico City overlaps these two units, they are combined here.

a. Dec. 1969.

b. Mid-1988.

c. 9.1 million persons.

d. 34.1 million persons.

e. The eleven-unit share of workers insured (excluding temporary/occasional workers, pensioners, and family members) is 73.4%.

Source: Calculated from Instituto Mexicano de Seguridad Social, Memoria Estadística, 1975, p. 71, and Informe Mensual de la Población Derechohabiente, May 1988, table 1.2.

of the persons which are "not specified" according to the urban-rural categorization were living in rural areas, the share there was woefully inadequate by 1988--certainly less than 11% of all persons covered.

Calculations developed in Table 12 assess the concentration of IMSS coverage in 1969 and 1988. These calculations reveal that 70% of all persons covered lived in 11 of Mexico's 32 political units (31 states and the Federal District): 77% in 1969 and 71% in 1988. Within these totals, the core area of Mexico City and Mexico state have seen their share of the total persons covered by IMSS fall from 38% to 28%, suggesting that the government is beginning to succeed in shifting importance away from the Federal District. All of the other 10 units either gained or held even in share, except Veracruz. The biggest percentage gains in coverage between 1969 and 1988 came in Chihuahua (which nearly doubled) and Coahuila (which increased by one-third).

When IMSS coverage in the 11 political units is compared against the total population in Mexico (Table 13), one observes an imbalance of about 20% in IMSS focus of activity. That is to say, 21 units have received 20% less coverage than they deserved according to total population. This analysis is fair to make, however, only in abstract terms of what social security should cover ideally. In reality, social security in Mexico has never sought to cover all persons but only persons working in modern industry.

Although ISSSTE data are not available by municipio or urban-rural breakdown (and the abstract analysis above does not apply), ISSSTE data do exist for 1982 and 1987 with which to compare coverage of persons by political unit. (See Table 14.) Among the population covered by ISSSTE, the concentration has exceeded 65% in the 11 states where IMSS was most important in 1987. Within this total, the Federal District has maintained an overwhelming share of more than 40% of all persons covered by ISSSTE.

TABLE 13

IMSS: "IMBALANCE"<sup>1</sup> BETWEEN PERSONS COVERED  
AND POPULATION IN ELEVEN POLITICAL UNITS,  
1969 and 1988

(Includes Permanent Workers; Temporary/Occasional Workers;  
Pensioners; Family Members)

Year	A.	B.	C.
	Persons Covered in 11 States as Share of All Persons Covered	Total Population in 11 States as Share of Total Population in Mexico	Balance <sup>2</sup> (A/B)
1969 <sup>a</sup>	77.1	58 <sup>c</sup>	1.33 <sup>e</sup>
1988 <sup>b</sup>	71.3	60 <sup>d</sup>	1.19 <sup>f</sup>

1. "Imbalance" involves an abstract concept because IMSS is not intended to cover all persons but only working persons and their families.
  2. 1.00 = Balance between share of persons covered and share of population in the eleven units.
- a. Dec. 1969.
- b. Mid-1988.
- c. 58% of 48.2 million persons = 28 million in the 11 states.
- d. 60% of 82.7 million persons = 50 million in the 11 states.
- e. In terms of imbalance in relation to population, the 11 states had 33% greater coverage of persons than warranted.
- f. In terms of imbalance in relation to population, the 11 states had 19% greater coverage of persons than warranted.

Source: Col. A, from table 12;

Col. B, data for 1970 calculated from Wilkie (1978, pp. 456-457)  
data for 1988 calculated from SS, Anuario Estadístico,  
1985, p. 35.

Col. C, calculated (A/B).

ISSSTE: DEGREE TO WHICH ELEVEN POLITICAL UNITS DOMINATE COVERAGE OF PERSONS,  
1982 and 1988

(Includes Permanent Workers; Temporary/Occasional Workers;  
Pensioners; Family Members)

Unit	a (%)	
	1982 <sup>a</sup>	1987 <sup>a</sup>
Total Covered Persons <sup>1</sup>	100.0 <sup>b</sup>	100.0 <sup>c</sup>
Sub-Total 11 Units <sup>2</sup>	66.8	65.1 <sup>d</sup>
Federal District <sup>3</sup>	} 46.2	42.6
State of Mexico <sup>3</sup>		
Jalisco	2.7	2.7
Nuevo León	1.6	2.9
Veracruz	3.3	3.6
Chihuahua	2.1	2.0
Coahuila	2.2	2.4
Guanajuato	2.5	2.8
Baja Calif. Norte	1.4	1.3
Sonora	1.9	1.8
Tamaulipas	2.9	3.0

1. In 32 political units (31 states and Federal District).
2. Units listed according to decreasing share in IMSS total for 1988.
3. Because Mexico City overlaps these two units, they are combined here.

a. December.

b. 5.5 million persons.

c. 7.4 million persons.

d. The eleven-unit share of workers insured (excluding temporary/occasional workers, pensioners, and family members) is 64%.

Source: Calculated from Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, Anuario Estadística, 1982, p. 3 and ISSSTE unpublished data.

TABLE 15

CONCENTRATION OF MAJOR SOCIAL SECURITY IN MEXICO'S CORE,<sup>1</sup>  
1982 AND 1987

**Part 1: Core's Share of Persons Covered by IMSS and ISSSTE**

(Includes Permanent Workers; Temporary/Occasional Workers;  
Pensioners; All Family Membrs)

Year End	Total Covered Million			Percent in Core		
	Total	IMSS	ISSSTE	Total	IMSS	ISSSTE
1982	32.4	26.9	5.5	34	29	46
1987	41.5	34.1 <sup>a</sup>	7.4	31	28 <sup>a</sup>	43

**Part 2: Core's Share of Workers Covered by IMSS and ISSSTE**

(Includes Permanent Workers; Temporary/Occasional Workers)

Year End	Total Workers Covered Million			Percent in Core		
	Total	IMSS	ISSSTE	Total	IMSS	ISSSTE
1982	8.6	7.0	1.6	34	31	44
1987	9.6	7.4	2.2 <sup>b</sup>	33	31	41 <sup>b</sup>

1. Core region = Valley of Mexico (Federal District including Mexico City) and entire state of Mexico, with which greater Mexico City is continuing to amorphously overlap.

a. Mid-1988.

b. "De base" and "no base."

Source: Part 1: 1982 adapted from IMSS, Memoria Estadística, 1982, p. 36; ISSSTE data adapted from table 14, above.

1987 adapted from tables 12 and 14, above.

Part 2: 1982 adapted from IMSS, Memoria Estadística, 1982, p. 40; and ISSSTE, Anuario Estadístico, 1982, p. 3.

1987 adapted from IMSS, Informe Mensual de la Población Derechohabiente, May 1988, p. 7; and ISSSTE unpublished data.

President De la Madrid promised to deconcentrate government focus away from the Federal District, and indeed he did reduce the share of government employees in Mexico's core from 46% in 1982 to 43% after 5 year's of effort. (See Table 14.) For the other 10 units, all but three gained or held even in share of government employees. (Only Chihuahua, Baja California Norte, and Sonora lost up to .2% during the 5 years.)

To further test the level of concentration of major social security coverage, Table 15 shows the IMSS and ISSSTE shares of persons located in Mexico's core since the attempt to achieve deconcentration began in earnest in 1982. In that year, 34% of persons covered by the two agencies lived in the core (34% of workers); by 1987, the total had fallen to 31% (33% of workers).

Clearly the inertia of past concentration will be difficult to overcome unless Mexico decides to move the capital away from the mountain-enclosed Federal District to a more open area such as Aguascalientes, as was contemplated by President Echeverría in the early 1970s. However, the idea to move the capital has seemingly been defeated by the chilangos (residents of Mexico City) as well as by the high cost of such a move, ironically, the 1980s did witness the move to Aguscalientes of one government statistical agency--the one agency that should not have moved because of its importance in gathering and circulating the data needed for planning. The government seemed to have selected the statistical agency to lead the deconcentration away from the Federal District for several reasons: on the one hand, data can be accessed by computers anywhere; on the other hand, earthquakes in the core are destructive of data archives. While these reasons are valid, the shift of directive offices and key personnel to Aguascalientes means that the statistical agency is now handicapped by the lack of personal access to the data

Gathering process--researchers gather data, not computers. Mexico has not been able to establish the giant data bank planned in the late 1970s, the attempt and failure of which caused a disruption to data series continuity as serious as the move to Aguascalientes. The statistical agency's ability to supply effectively wide-ranging and timely data on major topics has suffered greatly as a consequence; and it is rumored that the agency will soon move back to Mexico City.

### **G. Sixteen Sample Problems Facing IMSS**

At the same time that the difficulties of deconcentration challenge the IMSS, so too do major problems built into the IMSS modus operandi, some of which overlap with the issues of Mexican social security listed at the outset. Let us sample 16 of the problems faced by IMSS, which covers 78% of the persons enrolled in Mexico's 4 social security agencies.

IMSS Problem 1: the IMSS has to confront the fact that it has expanded to reach all of the persons that can be insured easily. By requiring that heads of family pay a share of their income to the IMSS in return for coverage, the IMSS limits expansion beyond the stable workforce, which is now almost fully included.

IMSS Problem 2: the economic crisis since 1982 has curtailed IMSS income at the same time as demand for services has risen. (See Table 16.) Real income from 1982 to 1987 decreased by 32%, the average annual premium for insured worker falling 45%. Although income as a share of GDP fell only 22%, the average salary upon which the IMSS pay-roll tax was paid fell over 40%. Meanwhile, both the number of permanent workers insured and persons covered by IMSS each increased at least 27%. Persons holding pensions increased 58% and children registered in child care centers increased 59%. Medical consultations and surgeries increased by over 23% and radiology by 36%. Births under IMSS care reached 641,000 in 1987, a 9% increase over 1982. Clearly the loss of income and the rising demand for services is a



TABLE 16

## THE IMSS IN TIME OF ECONOMIC CRISIS, 1982-1987

## Part 1. Income

<u>Category</u>	<u>Real Pesos of 1980</u>		<u>% Change</u>
	<u>1982</u>	<u>1987</u>	
Income (billions)	116	79	-31.9
Income as Share of GDP	2.41	1.87	-22.4
Annual Avg. Premium for Insured Worker (000)	15,173	8,427	-44.5
Avg. Salary Upon Which IMSS Pay-Roll Tax Paid	262	157	-40.1

## Part 2. Service

<u>Category</u>	<u>Thousands</u>		<u>% Change</u>
	<u>1982</u>	<u>1987</u>	
Permanent Workers Insured	5,793	7,355	27.0
Persons Covered	26,867	34,336	27.8
Pensioned Persons	655	1,035	58.0
Medical Consultations	59,834	74,707	24.9
Surgeries	777	953	22.7
Births	587	641	9.2
Radiology	4,720	6,427	36.2
Children registered in Child Care Centers	22	35	59.1

Source: IMSS, Informe Financiero y Actuarial, 1987, August 1988, pp. 7 and 9.

formula for damaging the effectiveness of IMSS in Mexican society.

IMSS Problem 3: the pay-roll tax burden on employers is dominated by IMSS, with INFONAVIT playing a much smaller role, as Table 17 shows. Where IMSS collects 76% of the pay-roll tax, INFONAVIT collects only 24%. The percentages collected are 15.6 and 5.0, respectively.

With regard to the burden on employers, they pay 79% of all payments for worker coverage through IMSS and INFONAVIT. In paying nearly 26% on the base of integral salaries to IMSS for worker social security and housing, employers now feel that they can shoulder no more of the burden. IMSS agrees but notes that neither the employee (who pays 17% of integral salary to the IMSS) and the government (now down to 3.4%) can be expected to pay more.

IMSS Problem 4: the cost of contributions to IMSS is high (see Table 18). Even the stable employer is hard pressed to pay an average of almost 16% on integral salaries for worker coverage, not to mention an additional 5% to INFONAVIT for employee housing. The steady increase in the IMSS burden on employers is shown in part 2 of Table 18, which reveals that the percentage has doubled since 1943 to reach about 75% of contributions by the mid-1980s. This high cost for benefits tends at once to keep wages low in the open economy and to cause expansion of jobs in the informal or underground economy, which does not pay IMSS taxes. Since 1973 the government subsidy to IMSS has been reduced to less than 1% of workers integral salaries, the share in all contributions for employees falling to 4.3%. Although workers since 1989 contribute 4.5% of their integral earnings to IMSS, their share in contributions to IMSS has remained about 20%. (Unfortunately workers have not benefitted from the IMSS law that requires employers to pay the worker's contribution to IMSS if they do not pay the minimum salary plus one peso; employers pay the one peso and assure that the workers share in the cost of benefits.)

TABLE 17

## TOTAL PAYROLL TAX BURDEN TO COVER IMSS AND INFONAVIT, 1989

## A. Percent of Integral Salary and Share Paid by Employer to Agencies

<u>Category</u>	<u>Percent</u>	<u>Share</u>
IMSS	15.6	75.7
INFONAVIT	<u>5.0</u>	<u>24.3</u>
Total	20.6	100.0

## B. Percent of Worker Integral Salary and Share Paid by All Contributors

<u>Category</u>	<u>Percent</u>	<u>Share</u>
Employer <sup>1</sup>	20.6	79.3
Employee	4.5	17.3
Government	<u>.9</u>	<u>3.4</u>
Total	26.0	100.0

1. For detail, see part A.

Source: Calculated from data supplied by IMSS and INFONAVIT.

TABLE 18

## IMSS: SOURCE OF CONTRIBUTORY FUNDING

(Excludes 5% Employer Contribution on Integral Salary to INFONAVIT)<sup>1</sup>

## Part 1: 1989

(%)

<u>Category</u>	<u>Total</u> <sup>3</sup>	<u>Health</u> <sup>4</sup>	<u>IVCM</u> <sup>5</sup>	<u>Work Injury</u>	<u>Child-Care</u>
<b>For Employees:</b> <sup>2,7</sup>					
Employer <sup>6</sup>	15.60 <sup>a,b</sup>	8.40	4.20	2.00 <sup>c</sup>	1.00 <sup>d</sup>
Employee <sup>6</sup>	4.50	3.00	1.50	0	0
Government	<u>.90</u>	<u>.60</u>	<u>.30</u>	<u>0</u>	<u>0</u>
Total	21.00	12.00	6.00	2.00	1.00
<b>For Self-Employed</b> <sup>7,8</sup>					
Continuing <sup>9</sup>	17.10 <sup>e</sup>	11.40	5.70	f	f
Independent <sup>10</sup>	13.52 <sup>g</sup>	h	h	f	f
Special	13.58 <sup>i</sup>	i	f	f	f
Other <sup>11</sup>	j	h	h	k	f

1. For employer total payments on behalf of employees, see table 17, above.
2. On integral salary, which includes base pay, vacation pay, yearly bonus, food, housing.
3. IMSS income from subtotals for Health, IVCM, Work Injury, and Childcare is pooled to give IMSS flexibility in meeting changing expenditure needs.
4. Includes employee and family coverage for illness (e.g., doctors, hospitalization, medicines, sick pay) and maternity (e.g. pre- and post-natal care, medicines, hospitalization).
5. Invalidez (invalidity), vejez (old-age), cesantía (lay-off owing to old-age), Muerte (death).
6. If employee's wages do not exceed minimum wage by one peso, employer must pay employee contribution to IMSS.
7. Dependent coverage for children in school normally ends at age 26, age 21 for non-students if 50% of fees are paid for specified coverages from age 16 to 20.
8. Self-employed are not eligible for coverage by INFONAVIT.
9. Employee who leaves or loses coverage under employer registered with IMSS can continue coverage by paying the employer contribution as well as employee contribution, provided that employee has been covered for one year under IMSS.
10. Professionals, small businessmen, artisans, unsalaried workers, and members of family-owned industries.
11. Ejidatarios and small property owners.
  - a. Rate may be higher depending on occupational risk--see note "c," below.
  - b. In addition to this contribution to IMSS, the employer must contribute to INFONAVIT an amount equal to 5% of employee's integral salary--see table 17, above.
  - c. Average is 2.0% for five classes of occupational risk but, because percent is calculated on IVCM base according to risk of occupation, rates for each employer actually vary from 1.5% to 153.5%.
  - d. From inception in 1973 through 1988 calculated on employee base salary, not on integral salary.
  - e. Based equals employee's pay level immediately prior to becoming self-employed; coverage may be selected for either health or ICVM or both.
  - f. No coverage.
  - g. Base equals 160% of minimum salary times 365 days; benefits exclude subsidy to cover sick pay.
  - h. Part of package.
  - i. Only health coverage, renewable yearly.
  - j. Rate for is negotiated.
  - k. Only medical coverage for work injuries.

Table 18 (Continued, p. C)

**Part 2: Historical View of Contributions to IMSS for Employees,<sup>1</sup> 1944-1989**

Year	% on Employee's Integral Salary				Shares Paid by Contributors			
	Total	Employer	Employee	Government	Total	Employer	Employee	Government
1944	13.7	7.7	3.0	3.0	100.0	56.2	21.9	21.9
1949	15.7	8.7	3.5	3.5	100.0	55.4	22.3	22.3
1959	16.7	9.2	3.75	3.75	100.0	55.1	22.5	22.5
1966	17.0	11.375	3.75	1.875	100.0	66.9	22.1	11.0
1973	17.9	12.275	3.75	1.875	100.0	68.6	20.9	10.5
1986	17.9	13.4	3.75	.75	100.0	74.9	20.9	4.2
1989	21.0	15.6	4.5	.9	100.0	74.3	21.4	4.3

1. For notes, see part 1, above.

Source: Adapted from IMSS, Subdirección General de Finanzas, computer printout; IMSS, Calendario de Cotización; Bimestres Naturales, 1989; IMSS, Ley del Seguro Social, 1986, articles 92, 194-225; and interviews with IMSS, Jefatura de Servicios de Afiliación.

TABLE 19  
IMSS: REAL EXPENDITURES PER PERSON COVERED, 1945-1988

(Includes Expenditures on Health, Invalidity,  
Old Age, Lay Off, and Survivorship  
For Workers, Temporary/Occasional Workers,  
Pensioners, and Family Members)

Year	A. Nominal Outlay Million Pesos	B. Consumer Price Index 1986 = 100	C. Real <sup>1</sup> Outlay Million Pesos (A/B)	D. IMSS Persons Covered (Thousand)	Real Outlay	
					E. Pesos Per Person Covered	F. Dollars <sup>2</sup> Per Person Covered
1945	28	.29	9,655	535	18,047	28.31
1950	155	.41	37,804	973	38,853	60.96
1955	376	.63	59,683	1,576	37,870	59.41
1960	1,317	.84	156,786	3,360	46,663	73.21
1965	4,122	.92	448,043	6,816	65,734	103.13
1970	7,863	1.08	728,055	9,772	74,504	116.89
1975	22,986	1.91	1,203,455	16,338	73,660	115.57
1980	81,677	5.01	1,630,279	24,125	67,576	106.02
1982	204,301	10.19	2,004,917	26,885	74,574	117.00
1986	1,528,747	100.00	1,528,747	31,062	49,217	77.22
1988	7,439,266	496.56	1,498,160	35,533	42,162	66.15

1. Real pesos of 1986.

2. Calculated by dividing data in column E by 637.38, the average peso/dollar exchange rate on the free market in 1986.

Source for Columns:

A: Nominal yearly outlay and number of persons covered as of December 31 each year given in Instituto Mexicano de Seguridad Social, Memoria Estadística, 1982 (pp. 31, 33, 295) and 1986 (pp. 41 and 275) as well as Estado de Ingresos y Gastos por Rama de Seguro . . . 1988;

B: Average micro price index (which links the average consumer price index of the Dirección General de Estadística to 1950 with the average consumer price index of the Banco de México since 1950) in James W. Wilkie, "From Economic Growth to Economic Stagnation in Mexico: Statistical Series for Understanding Pre- and Post-1982 Change," Statistical Abstract of Latin America, vol. 26 (1988, p. 924), updated to 1988 with IMF, International Financial Statistics, March 1989;

C: Column A divided by column B;

D: See source for column A, above;

E: Column C divided by column D;

F: See note 2, above; rate of exchange from Wilkie (p. 918) cited in source for column B, above.

As for self-employed persons, whether the economy is expanding or not, few of them have been able to afford to join IMSS by paying over 13% of their income to IMSS in return for what amounts to inadequate IVCM benefits and "major medical" coverage; the waits and inefficiency of minor health care not being worth the effort to extract such services from the IMSS bureaucracy. Self-employed workers, who receive health and ICVM coverage as part of a package, pay less than former employees continuing in IMSS, but the latter (who pay about 17% for coverage) are eligible to receive sick-pay.

IMSS Problem 5: IMSS expenditures are not keeping up with inflation. Total real expenditures peaked about 1982, as shown in Table 19 (column C). The total real outlay in 1986 fell below the pre-1980 figure, setting back the agency by over half a decade.

IMSS Problem 6: real expenditures per person covered have been and remain too low to improve services (column E in Table 19), let alone keep up with the greater numbers of persons who have been added (column D) to the agency. In real 1986 dollars, the amount expended for all purposes ever surpassed \$US 117 dollars per person (or \$US .32 daily) for the years sampled. This figure fell to about \$US 66 per person by 1988, or \$US .18 daily. Even in its 1982 heyday the IMSS did not have enough funds for each person covered; it could survive only by discouraging as many enrollees as possible from using its services. In this regard, inefficiency and delays in providing health service have "protected" the agency from financial overload as the its real outlay per person fell 44% outlay between 1982 and 1988.



IMSS Problem 7: IMSS expenditures are fragmented into a wide-range of activity; its objectives are not well defined (see Table 20). Old-age pensions consumed about 5% of outlays in 1985 (the last year for which data are available for functional expenditures), up from 1.7% in 1959. Subsidies increased from about 10% to nearly 23% in 1985. In the meantime the medical share declined from 63% to about 54% in 1988. About 5% of the medical decline can be traced to higher shares of IMSS outlay devoted to administration. Although administrative costs are below the share for 1959, they were higher in 1988 than optimal for an agency that lacks funds to cover its non-administrative purpose.

IMSS should transfer out of its control three programs tangential to its mission in order to rationalize its outlays. First is the child-bearing subsidy (1.5% of IMSS outlays in 1985, as seen Table 20) which in any case is certainly counterproductive in an era when Mexico is officially fostering birth control, not child-bearing. Second is cost for child-care centers, which took 2.2% of IMSS outlays in 1988, up from about 1% between 1979 and 1985. Third are general welfare programs (including vacation, theater, and job-training centers), which in 1985 took up nearly 4% of IMSS outlays, not counting the child-care subtotal. Although these are important, socially and culturally useful programs helping to create "well-rounded workers," they need to be transferred to different agencies, thus helping IMSS to clarify its role. (Although the IMSS once devoted up to 1.5% of its outlay to encourage persons living in free union to marry legally, since 1984 IMSS wisely has phased out this program.)

IMSS Problem 8: data concerning IMSS expenditures do not presently allow policymakers and observers to see clearly how it spends its money. Categories of expenditure need to be presented by activity in order to show the function of IMSS expenditures. Part of the problem could be resolved by

*guaranteed  
patrons  
with no centers  
recovered  
supervisors  
1980-1985*

TABLE 20  
IMSS: FUNCTIONAL ANALYSIS OF REAL OUTLAY, 1959-1985

Yearly Totals = 100.0%

Year	Adminis- tration	Medical <sup>1</sup>	Old Age <sup>2</sup> Pensions	Child- bearing <sup>3</sup> Subsidy	Marriage Subsidies <sup>4</sup>	Other Subsidies <sup>5</sup>	Centers <sup>6</sup>	
							Total	(Subtotal Child-care)
1959	21.9	63.2	1.7	.8	1.2	9.8	1.4	a
1969	13.4	59.1	3.4	.8	1.2	18.6	3.5	a
1979	13.9	55.7	5.2	1.5	.5	20.4	2.8	(.9)
1982	18.4	51.8	4.7	1.4	.2	19.4	4.1	(1.2)
1985	17.1	47.8	5.2	1.5	.1	22.5	5.8	(.9)
1988 <sup>b</sup>	16.2 <sup>c</sup>	54.4 <sup>c</sup>	b	b	0 <sup>c</sup>	b	5.7 <sup>d</sup>	(2.2)

1. Includes personnel, medicines, laboratory, dental work, hospitalization, and transportation costs for treatment (illness and maternity) of eligible persons as follows:

**worker and his/her**

**spouse**--legal or one concubine (if more than one concubine, none are covered;

**children** (from legal spouse and all concubines)--under age 16 (age 26 if student, no age limit for invalids); non students under ages 16-20 covered for medical care if premium is paid for them.

**parents**--who live with and are dependent upon insured;

**other**

**students** (if not covered above)--since June 1987 includes students at preparatory and university levels;

2. Includes workers ages 60 to 64 who are laid-off owing to advanced years.
3. Maternity 100% salary benefit 42 days before and after childbirth.
4. Marriage subsidies for persons covered as well as for widowed spouses who remarry.
5. Includes: **subsidies** for the ill and temporarily handicapped worker, and for funeral payments;  
**idemnifications** for the permanently handicapped worker;  
**pensions** for the permanently incapacitated and the handicapped worker, for his/her spouse and widowed spouse, for children and orphans to age 16 (age 25 for students, no age limit for invalids), and for dependent parents  
**final grant** for widowed spouses who remarry, for orphans whose coverage ends, and for pensioners who leave Mexico
6. General Welfare (Prevision General) includes child-care centers, job training centers, vacation centers, and theaters.
- a. Data not available.
- b. Functional analysis ("distribución por cuentas y tipo de presentación") not published by IMSS after 1985; expenditure now based according to IMSS accounting by division ("distribución por rama de seguro segun contabilidad del IMSS").
- c. From expenditure data according to branch of social security coverage--see note b.
- d. Projected expenditure, according to IMSS data published in Miguel de la Madrid Hurtado, Sexto Informe de Gobierno 1988; Estadística, p. 195.

Source: Instituto Mexicano de Seguridad Social, Memoria Estadística, 1966 (table IX-2), 1975 (p. 29), and 1986 (p. 275); and IMSS, Coordinación de Planeación Financiera, Estado de Ingresos y Gastos por Rama de Seguro . . . 1988, p. 1.

simply reinstating the publication of functional expenditure data suspended since 1986, thus resuming one of the IMSS most important historical data series which permits analysis of the trajectory of social security in Mexico. Apparently the IMSS shift in 1986 from functional analysis of expenditures (distribución por cuentas y tipo de presentación) to analysis by accounting category (distribución por rama de seguro según contabilidad del IMSS") was justified as a cost reduction, as was the suspension of full publication of the IMSS Memoria Institucional and Memoria Estadística. Instead of publishing data on expenditures, IMSS statistical yearbooks inappropriately focus on medical services available and rendered (the latter involving the serious multiple counting problems mentioned above).

IMSS Problem 9: IMSS lacks and needs to develop and publish (i) long-term actuarial projections on population reaching retirement age, (ii) and projected reserves necessary to meet future obligations. Previously it has published its actuarial situation for three years forward, the most recent analysis available being dated December 1988, but without age data and with projections limited to gross income and outflow. IMSS claims to be developing a short- and medium-term plan to remedy such problems and to develop age projections through 2000, but was still not available by August 1990.

IMSS Problem 10: Although ICVM benefits once may have been theoretically sufficient to support a family, in practice they have been insufficient even the insured, let alone the family. Retirement and permanent disability pensions are paid to the insured calculated on the average base salary for the most recent 250 weeks worked plus family benefits (discussed below) as follows: up to 85% if the insured has paid into IMSS for less than 1,500 weeks, up to 90% for up to 2,000 weeks, and up to 100% for more than 2,000 weeks. (Article 169 of the Ley de Seguro

Social, 1986.) To retire, a worker must reach age 65 with at least 500 weeks of payment into IMSS to receive 100% of the average base salary as given above. (Article 138.) To retire on permanent disability, the insured must have paid into IMSS for at least 150 weeks, with the percentage of pay calculated as above for retired worker (Articles 131 and 136.) To receive benefits owing to dismissal or unemployment because of advanced age, the worker must be age 60 to 64 with 500 weeks of payment into IMSS (Article 145), but the worker must be age 65 to receive 100% of the average base salary as given above. Otherwise the percentage of the average base salary is reduced 5% for each year under 65--a worker age 60, then, receives 75% of the average base salary. (Article 171.)

Family benefits are calculated according to the following percentages of the insured average basic salary: wife or concubine, 15%; dependent children, 10% each; or if lacking the above dependents, 10% for each dependent parent or one dependent grandparent. (Article 164.) Widows receive half of the benefit, orphans from 20% to 30%. (Articles 153 and 157.) Benefits are adjusted somewhat for inflation, based on changes in the minimum salary set by the National Minimum Salary Commission and on the financial health of IMSS. (Article 172.)

In practice, let us take the case of one typical retiree interviewed in 1988, typical because he must work to augment his retirement pension. This sample retiree took his old-age retirement pension from IMSS in 1983 with 30 years of eligibility behind him. He felt fortunate to be able to have gained his pension from IMSS without much trouble, because until the IMSS streamlined its administration in the late 1970s it had been bureaucratically difficult (some say barely possible) to obtain an earned pension. But the taxi driver could not live on his pension, which in 1987 amounted to \$US 2,076 yearly, so beginning in 1984 he opened a taxi

business. By driving his cab 70 hours per week, he earned an additional \$US 10,428 yearly, which added to his pension gave him \$US 12,504 yearly to support his six-member extended family. The big benefit that he won from social security came from low-interest loans which INFONAVIT and FONACOT provided to him as a member of IMSS to buy a three-bedroom house and a 1986 automobile, the latter giving him the needed income from his taxi business. Yet the above taxi driver-IMSS retiree had a favored pension compared to the average pension shown in Table 21.

The average IMSS retiree received only \$US 588 dollars yearly in 1987, an amount equaling 28% of the IMSS pension received by the above taxi driver in the same year. (This ratio has been effectively frozen in place since December 1987 when President De la Madrid announced the Pact of Economic Solidarity, signed by management, labor, and the government to bring down inflation.) The average pension for ICVM coverage in 1987 was \$US 396 dollars, encompassing a range from \$US 588 dollars yearly for old-age retirees and invalids to \$US 96 dollars for orphans. (See Table 21.) The average pension for persons and their families covered by work injury provisions of the social security law was \$US 252, the range of pensions going from \$US 480 dollars for persons fully disabled to \$US 144 dollars for ascendants. These averages offer very meager economic help to needy retirees.

IMSS Problem 11: IMSS claims that it covers sectors of society that traditionally have not been well covered, such as domestic and independent workers as well as taxi drivers and students, but it does not acknowledge that only students participate in large numbers, and that is because they do not have to pay for coverage. Domestic workers in the IMSS in 1989 totaled just 391 (Table 22), at a time when the minimum wage has fallen to half the level of the late 1970s (Chart 1). Independent workers now number

TABLE 21

## AVERAGE VALUE OF PENSIONS PAID BY IMSS, 1987

<u>Category</u>	<u>Num. Cases</u>	<u>Dollar<sup>1</sup> Yearly Total</u>
ICVM Coverage	832,782	396
Invalids	171,299	588
Old Age Retirees <sup>2</sup>	247,146	588
Widows	212,632	288
Orphans	190,630	96
Ascendants <sup>3</sup>	11,075	120
Work Injury Coverage	173,479	252
Disabled Over 50%	26,826	480
Disabled Under 50%	73,846	204
Widows	22,529	324
Orphans	41,448	156
Ascendants <sup>3</sup>	8,830	144

1. Pesos converted to dollars at average rate for 1987 of 1,405.80 (as per data on conversion rates given in James W. Wilkie, ed., Society and Economy in Mexico (Los Angeles: UCLA Latin American Center Publications, 1989), chapter 1, table 3, part 1.

2. Includes persons retired and persons dismissed owing to advanced age.

3. Includes parents and grandparents.

Source: IMSS, Informe Financiero y Actuarial, 1987, August 1988, Appendix, p. 2.

TABLE 22

IMSS: MINOR GROUPS INCLUDED WITH MAJOR PROPAGANDA VALUE, MARCH 1989

(Workers Permanently Insured)<sup>1</sup>

Category	Voluntarily Continuing	Indep. Workers	Domestic Workers	State & Muni. Govt. Workers	Taxi Drivers of Federal District	Students <sup>2</sup>
Number <sup>3</sup>	204,460 <sup>a</sup>	8,995 <sup>b</sup>	391 <sup>c</sup>	136,737 <sup>d</sup>	1,430 <sup>e</sup>	460,807
Percent <sup>4</sup>	2.5	.1	.0005	1.7	.02	5.6

1. Excludes temporary/occasional workers; pensioners; and family members.
2. Students have only health and maternity benefits while enrolled in school.
3. Total number permanently insured = 8,265,365.
4. Total number permanently insured = 100%.
  - a. Increase of 51,141 compared to mid-1988.
  - b. Decrease of 724 compared to mid-1988.
  - c. Decrease of 1 compared to mid-1988.
  - d. Increase of 5,085 compared to mid-1988.
  - e. Decrease of 461 compared to mid-1988.

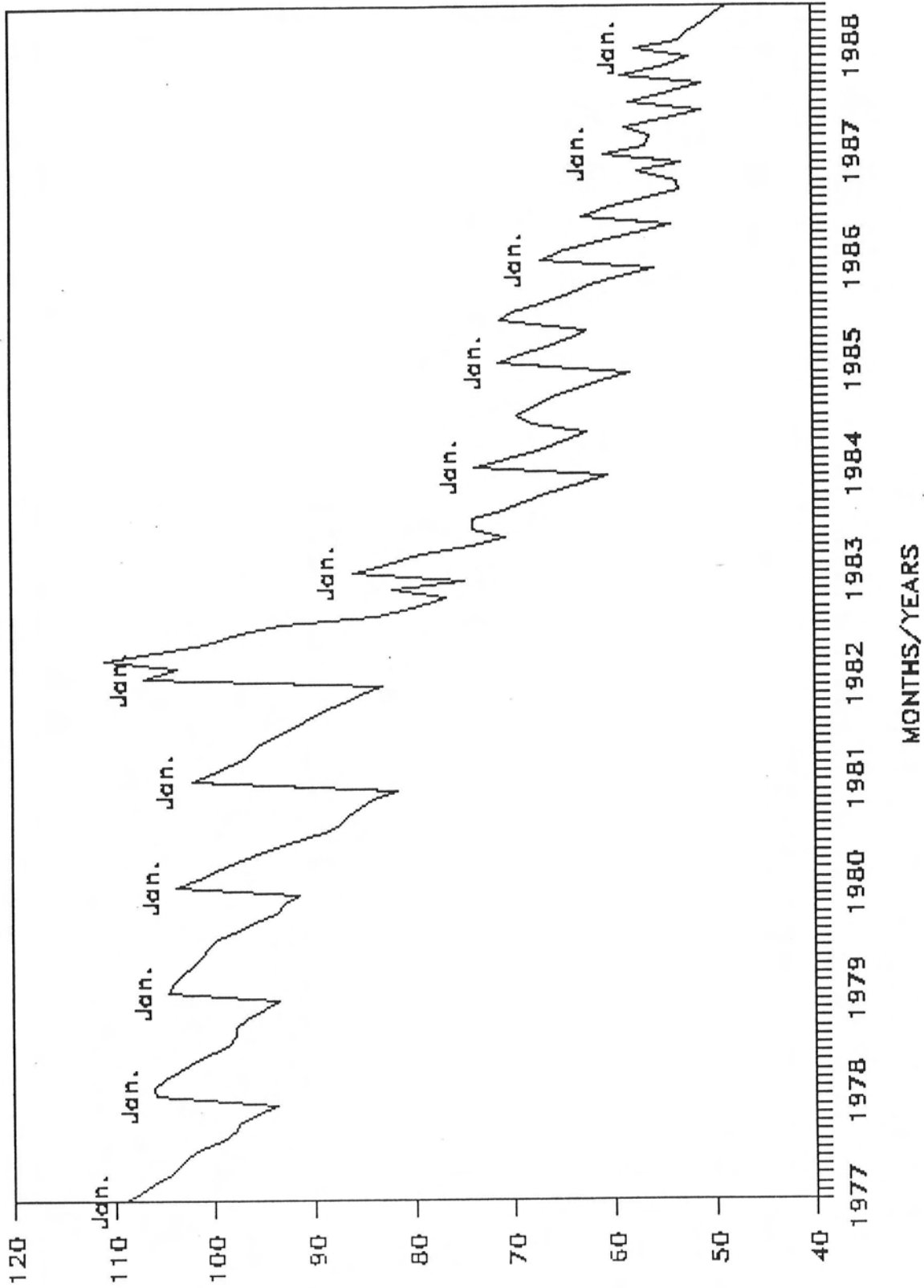
Source: Calculated from Instituto Mexicano de Seguridad Social, Informe Mensual de la Población Derechohabiente, March, 1989, p. 10.



CHART 1

# MEXICO: INDEX OF REAL MINIMUM WAGES, 1977-1988

(1978 = 100)



Source: Calculated from statistics of the Comisión Nacional de los Salarios Mínimos.

less than 9,000 (.1%). Workers voluntarily continuing include only 2.5% of the 8.3 million workers permanently insured by the agency. The IMSS has announced with fanfare that taxi drivers in the Federal District are now included in IMSS, but the enrollment turns out to be 1,430 (.02%). While some state and municipal government workers (over 136,000) have opted to join IMSS rather than ISSSTE, 136,737 having done so, others (over 177,000) have chosen to belong to ISSSTE, which competes with IMSS to win members in the state and local governments where it can be argued that ISSSTE facilities are less readily available than those of IMSS.

With regard to data on preparatory and university students (incorporated into IMSS statistics beginning in March 1989 to cover data retroactively back to December 1989), the data are treated problematically in IMSS sources. These students, who constitute almost 6% of workers permanently covered by IMSS, are protected with only health benefits and they lose coverage when no longer enrolled in school. In any case, enrollment in school is not usually considered as an "occupation." Because IMSS data is used by observers to estimate the number of persons employed in the formal economy, the inclusion of students inflates the estimates on employment.

IMSS Problem 12: the IMSS expends considerable time and effort counting the number of persons receiving medical consultations, but these numbers are often inflated because of multiple countings. More specifically, referrals may be confused with real consultations and followup visits; this confusion misstates the number of services provided but may be appealing for its publicity value. For example, IMSS (and ISSSTE) rules require that persons seeking specialized treatment, such as eye refraction for spectacles, see a general practitioner first, who refers the patient to the specialist. Theoretically, this staging makes sense in

some (not all) complicated health cases, but certainly not in the case of eye refractions. For the eligible person seeking eyeglasses through the social security system, the delay in visiting both the generalist (who in any case is not qualified or in a position to identify serious eye illness) and the specialist, plus the making of the lenses, can last several months. The bureaucratic nightmare of recording the number of persons consulting the various government agencies can be seen in the rules for "simplifying" the administration of services given by the Secretariat of Health in its Racionalización de la Regulación (1984-1988), a work which inadvertently shows how difficult it will be to reform the bureaucracy of health care.

IMSS Problem 13: the IMSS lacks a modern, computerized process for tracking membership eligibility and usage of its coverages. For example, computerized records would not only help eliminate multiple countings but also make IMSS more efficient in its dealings with subscribers. Certainly computerized records could also be used to check on the efficiency of the IMSS administrative bureaucracy as well as the physicians and medical specialists in their treatment of patients. To obviate such controls, the IMSS bureaucracy and medical personnel teamed to defeat implementation of computerized processes that had been readied for service under IMSS director general Arsenio Farrell Cubillas, 1976-1982. Once Farrell left, computerization was dropped, ostensibly because it could not realistically be extended to isolated parts of the republic. Plan for reinstating a simpler computer registration of patients are underway, but are insufficient and far from reality.

IMSS Problem 14: many medical generalists and specialists do not work in IMSS (and ISSSTE) for the number of hours stipulated in their contract; and many use IMSS facilities to treat their own private patients. Because government physicians are underpaid by IMSS, they customarily leave for

their private practice before completing their full-time workday (6-8 hours) with IMSS. These "full-time" physicians who work for the government probably put in no more than 3 effective hours seeing IMSS patients, spending the remainder of their time to read charts, maintain records, meet with their colleagues, plan future activities, and take their required rest breaks. Consequently, too little time is left for serving the population covered by government programs. Given the low pay of the public sector, however, it is perhaps not surprising that physicians sense little incentive to work hard.

Beyond the fact that most physicians give IMSS too little of their time, some charge their IMSS patients to see them privately, where patients can be treated with more time and thought, thus avoiding the bureaucratic delays, inefficiency, and disinterested care. Some physicians use their IMSS position only to hospitalize an otherwise privately paying patient, for example to reduce the cost of private surgery. Knowledgeable officials in Mexico place such improper use of IMSS facilities at 20 percent of total use.

IMSS Problem 15: the life of physician interns is often discouraging, because they must complete a one-year period of social service without pay before they receive their degrees; those who are sent to rural areas are often resentful at their isolation, difficult working conditions, and workload. Such problems are compounded in locations where lack of continuity in health care has created accumulated difficulties that cannot be solved by individual physicians working without backup of records, labs, x-rays, and qualified nursing. (Nurses must also work for one year without pay as interns, compared to non-medical graduates who must serve as interns without pay for only six months and usually in Mexico City.)

IMSS Problem 16: the weak financial base of the IMSS and its

investment in land and buildings (both of which constitute an illiquid reserve, little of which can be sold without compromising its mission), limit IMSS's ability to resolve the 15 problems mentioned above. Because IMSS was established without a financial reserve, it has had to follow a pay-as-it-goes plan, investing its financial reserves and leaving it less and less able to meet its future obligations. Although the IMSS could argue that few have lived to retirement age, and so its obligations have been low, that situation is passing, leaving the agency with unfunded obligations, as is discussed below.

#### **H. The Distorted Importance of IMSS in the Health Sector**

Beyond these problems of defining a rational identity for IMSS, a question remains about health services provided to nonworkers by IMSS, which competes with the Secretariat of Health (SS) to provide services to persons not covered by formal social security programs. Although the SS revised its mission in 1985 to focus exclusively on health, IMSS has not turned over its health activities, even though COPLAMAR might be located in the SS in order to avoid duplication of effort and confusion of responsibilities. Perhaps because the SS bureaucracy has been even more unresponsive and inefficient than IMSS, or because the IMSS leadership has more influence with its independent income, the IMSS mission has tended to expand at the expense of SS.

The importance of health institutions in Mexico is shown in the data on employment of medical personnel in Table 23. In 1977 on the eve of the establishment of COPLAMAR in IMSS, IMSS had 40% of the physicians, dentists, interns, and other personnel. By 1983 when COPLAMAR peaked, IMSS had 48% of Mexico's medical personnel. During the same period, the SS's share of medical personnel declined slightly from 21% to 20%, while ISSSTE,

TABLE 23

## MEDICAL PERSONNEL IN MEXICO, 1977 and 1983

## Part 1: By Service

<u>Category</u>	<u>1977</u>	<u>1983</u>
Absolute <sup>1</sup>	51,620	74,640
%	<u>100.0</u>	<u>100.0</u>
IMSS	40.1	47.9 <sup>a</sup>
SS	20.8	19.8
ISSSTE	12.6	12.8
PEMEX-PSSS	2.3	2.7
ISSFAM <sup>2</sup>	2.7	2.1
DDF-PM <sup>3</sup>	2.6	2.4
Private	9.3	7.2
Other <sup>4</sup>	9.6	5.1

## Part 2: IMSS Share of All Physicians

<u>Practice</u>	<u>1977</u>	<u>1983</u>
General	36.8	54.0
Specialists	36.1	39.6
Dental Surgeons	34.5	33.9

1. Including physicians (general practitioners and specialists), dentists, interns, and other personnel.
2. ISSFAM here includes the Secretarías de Defensa y Marina.
3. Departamento del Distrito Federal-Programas Médicos.
4. Includes DIF and INDS (for inclusions in INDS, see table 25).
  - a. Includes IMSS-COPLAMAR.

Source: Secretaría de Programación y Presupuesto, Anuario Estadístico, 1981 (p. 117) and 1986 (p. 311).

PEMEX-PSSS, ISSFAM and the Department of the Federal District (which runs its own medical programs) stayed in the 2-3% range. Over the same years, 1977-1983, private institutions saw their share of personnel decline from 9% to 7%. Meanwhile the absolute number of medical personnel grew 45%, giving IMSS a tremendous advantage both in absolute and percentage terms, with the SS holding second rank well ahead of ISSSTE.

IMSS growing domination of the medical field is also clearly seen in Table 23, Part 2 of which shows data on total physicians practicing in the country. IMSS had only 37% of general physicians in 1977, but 54% in 1983. Its number of specialists during the same period went from 36% to 40%, its share of dental surgeons held at about 40%.

Such a concentration of physicians has given IMSS the major role in health care decisions in Mexico. In this role, general physicians in IMSS continue to constitute over 53% of all general practitioners in public service and over 44% of specialists. (See Table 24, part 1.)

With regard to dentistry, IMSS dominates the public health picture with 56% of all dentists, although there is a shortage of personnel in this field--less than 5,000 dentists. (See Table 24, part 1.) Because of the low standard of diet for most Mexicans, and because heavily-sugared colas are the major drink for the population (which cannot trust the water because of ruptured water lines and sewage contamination), Mexico must increase its supply of dentists serving the public. Unfortunately, the agencies caring for the population without IMSS or ISSSTE coverage have seen their share of dentists decline drastically. The SS share fell from 37% in 1983 to 24% in 1987; and other units (including INDS and DDF-PM) saw their share of dentists fall from 22% to 7%. In 1987 SS had only 2,570 dentists, barely enough to send one practitioner to each of Mexico's 2,398 municipios.

### I. Role of the Secretariat of Health (SS) in Relation to IMSS

Understaffed and underfunded for years relative to IMSS, the SS has struggled for a place in the Mexican national health sector. The idea of public health emerged slowly in Mexico. Traditionally, health (along with welfare and assistance) was a minor part of the functions of the Interior Ministry. Under the Constitution of 1917 a separate Public Health Department was established, but it was handicapped without ministerial powers even as it centralized power over health matters in the federal government. Thus, where the USA developed a decentralized public health system, Mexico has left local governments nearly powerless in health matters, as noted by Tucker (1956, p. 337).

By 1937 President Cárdenas saw welfare as of more pressing importance than health and he created the Secretariat of Assistance (SA). Not until 1943 were the Department of Health and SA merged as part of giving new priority to health matters under President Avila Camacho. The fusion created the Secretariat of Salubridad y Asistencia (SSA), which had to compete for funding with a proliferating number of programs, such as the Instituto Nacional Indigenista and the decentralized health institutes--see Table 25 for the current listing. (On the expansion of public health programs in Mexico, see tomos I and III of the work edited by Soberón, Kumate, and Laguna, discussed below.)

Recognizing that the public health sector had grown haphazardly, meeting the changing needs of different presidential administrations, the central government began in 1977 to try to define and inventory the various agencies, institutes, and programs offering public health services. By 1985 SSA was streamlined as the Secretaría de Salud, which I call "SS." (Officially the Secretariat of Health continues to use its old acronym "SSA," thus confusing its old and new roles.)



TABLE 24

AGENCY HEALTH PERSONNEL SHARES  
IN ALL MEXICAN PUBLIC HEALTH PERSONNEL,<sup>1</sup>

**Part 1. Physicians, 1983 and 1987**

Category	General		Special		Dental <sup>2</sup>	
	1983	1987 <sup>a</sup>	1983	1987 <sup>a</sup>	1983	1987 <sup>a</sup>
Absolute	26,070	20,568	16,885	21,203	2,656	4,586
%	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
IMSS	58.4	52.7	44.9	44.4	37.2	56.0
SS	18.3	22.7	15.0	23.4	36.7	24.0
ISSSTE	11.5	16.6	18.3	21.0	4.0	13.1
Other <sup>3</sup>	11.8	8.0	33.6	11.2	22.1	6.9

**Part 2. All Medical and Paramedical Personnel,<sup>4</sup> 1987**

Category	1987 <sup>a</sup>
Absolute	317,484
%	<u>100.0</u>
IMSS	50.7
SS	30.7
ISSSTE	11.5
Other	7.1

1. Excludes personnel in the private sector.
2. Data on "orthodontists" for 1987 may not be comparable directly to data on "dental surgeons" for 1983.
3. Includes DDF-PM, INDS, PEMEX-PSSS, Secretaría de Marina.
4. Medical includes physicians, residents, "pasantes"; paramedical includes nurses.
- a. No data provided to source by the Secretaría de Defensa.

Source: for 1983, Secretaría de Programación y Presupuesto, Anuario Estadístico, 1986, p. 311.

for 1987, SS, Boletín de Información Estadística, Número 7 [1987], pp. 15

TABLE 25

ACTUAL MEDICAL EXPENDITURES OF MEXICAN PUBLIC HEALTH AGENCIES,<sup>1</sup> 1987

<u>Category</u>	<u>Amount</u>
Million Pesos	4,611,450 <sup>a</sup>
%	<u>100.0</u>
IMSS	56.7
COPLAMAR	1.6
SS	19.9
ISSSTE	10.8
DIF	2.2
INDS <sup>2</sup>	3.9
PEMEX-PSSS	3.9
DDF-PM	1.0

1. Excludes minor agencies such as ISSFAM, INI, and STC-PM.

2. The Institutos Nacionales Descentralizados de Salud (INDS) include:  
 Instituto Nacional de Cancerología  
 Instituto Nacional de Cardiología  
 Instituto Nacional Enfermedades Respiratorias  
 Instituto Nacional de Neurología y Neurocirugía  
 Instituto Nacional de Nutrición  
 Instituto Nacional de Pediatría  
 Instituto Nacional Perinatología  
 Hospital Infantil de México  
 Hospital General de México  
 Hospital General Dr. Manuel Gea González,  
 according to Secretaría de Salud, Anuario Estadístico, 1985 (p. 385) and  
1987 (p. 373).

a. Amount = 2.1 billion dollars, converted at 2227.50 year-end exchange rate.

Source: Except for INDS and PEMEX-PSSS, data are adapted and calculated from medical expenditure presentation in SS, Boletín de Información Estadística [1987], pp. 5-6. INDS data are from footnote 1 in ibid, p. 6; and PEMEX-PSSS data are from PEMEX, Anuario Estadístico, 1987, p. 144.

An important role for SS emerged briefly under the under the De la Madrid administration. Despite the fact that the SS share in private and public medical personnel declined slightly between 1983 and 1987 (Table 23), its share of physicians gained at the expense of IMSS (Table 24). Furthermore, although SS had lost the bureaucratic struggle under López Portillo to control COPLAMAR, it won control over health planning under De la Madrid. That was of greater importance than managing COPLAMAR, especially since COPLAMAR foundered in the Mexican budget crisis since 1982.

Realizing that Mexico can have no rational plan for the public health sector without knowing the dimensions and size of the sector, the De la Madrid government and its chief planner Carlos Salinas de Gortari outlined in their Plan Nacional de Desarrollo, 1983-1988 (México, D.F.: Nacional Financiera, 1983, pp. 117-120) a coordinated National System of Health, to be overseen by SS. Secretary of Health Guillermo Soberón Acevedo immediately took vigorous coordinating authority into his hands and set out to identify and classify the various health agencies and/or separate health programs that had sprung up one after another without plan since the 1940s. The objective was to inventory the human and material resources in relation to expenditures--something that had not been done before with any completeness.

That SS could begin to make sense out of the maze of public medical facilities is important, but its results mark only a beginning into research on health agencies in Mexico, as is suggested in Table 25 where I have augmented SS data to include PEMEX-PSSS and INDS. SS must be given the authority to compel centralized and decentralized agencies to supply data on health services, persons reached, and expenditures, data necessary for analysis by the Secretary of Labor as well as SS. The idea is not to seek

data in order to control agencies from the central government, but rather to understand the changing parameters of activity within the health sector and to rationalize expenditures so as to avoid duplicative expense and inefficient health services.

Some of the long-needed basic information needed to define the present health-care situation conceptually and to publish inventory statistics has recently been published under the auspices of SS. In 1988 SS commissioned a monumental descriptive work, entitled La Salud en México: Testimonios 1988. Edited by Guillermo Soberón, Jesús Kumate, and José Laguna, the work was released in 4 tomos with 8 volumes covering the following themes:

- I. Fundamentos del Cambio Estructural
- II. Problemas y Programas de Salud
- III. Desarrollo Institucional:
  - Volumen 1. IMSS [y] ISSSTE
  - Volumen 2. Asistencia Social
  - Volumen 3. Institutos Nacionales de Salud
  - Volumen 4. Otras Instituciones de la Administración Pública Federal
- IV. Especialidades Médicas en México
  - Volumen 1. [Chapters 1-25]
  - Volumen 2. [Chapters 26-47].

The usefulness of this series is unquestioned, but there are two problems. First, because it is published under official auspices and is intended to be descriptive, the series refrains from critically analyzing the National Health System. Second, the series is compromised without an index to each volume.

The inventory of statistics on public health activities is published

in two SS sources. One is the Boletín de Información Estadística, the most recent of which is Número 7, [1987]. It is published by SS for IMSS, ISSSTE, DIF, and SPP. The Boletín lacks data on INDS, PEMEX-PSSS, and ISSFAM. The second source is SS, Información Básica del Sector Salud, [1987].

With the SS raw data now available for processing and analysis (as in Tables 24 and 25), the relative power of the health agencies can be assessed for the first time. The results for 1987 indicate that SS had 31% of all medical and paramedical personnel (excluding ISSFAM, which refused to cooperate in the inventories), but only 20% of the national health budget--compare Tables 24 and 25. The data confirm IMSS domination of the health field, with 51% of public medical and paramedical personnel and 57% of national health expenditures. Only ISSSTE's share of personnel balanced with its share of expenditures, around 11%. The share for the remaining agencies was 7% for personnel and 9% for expenditures. None of these smaller agencies spent more than 4% of the national health outlay in 1987.

In providing a data base for analyzing the situation of public health in Mexico, the SS view is somewhat misleading. For example, it graphs and charts health investment expenditures in current terms, which suggest fantastic increases (1,411% between 1978 and 1985, including a 226% change in 1984 alone), while failing to note that the data do not take into account inflation. (See Table 26.) However, in providing total budgetary expenditures for the health sector in current prices (which increased 1,336% between 1978 and 1987), it does consider real prices, which indicate a -10.3% change in the health sector budget between 1978 and 1987.

Table 26 shows health expenditures in total public sector spending, the health share falling from 10% in 1978 to as low as 6.3% in 1983, before making a slight recovery to 8.2%. It also shows the health sector's budget

TABLE 26

## SS VIEW OF THE PUBLIC HEALTH SITUATION, 1978-1987

## Part 1. Yearly Data

Year	Health Sector Budget				Patients Per Health-Sector Physician	Total Population		Birth Rate <sup>2</sup>	
	% Change in Non-Deflated Investment	% Change in <sup>1</sup> Non-Deflated Total Budget	% in Public Exp.	% in GDP		Million	%		Change
1978	a	a	10.1	2.2	a	a	a	a	
1979	39.9	26.0	9.4	2.2	a	a	a	a	
1980	76.4	39.2	7.0	2.1	1,724	a	a	a	
1981	38.4	42.9	6.7	2.2	1,593	71.3 <sup>b</sup>	2.3	34.0	
1982	44.2	63.3	6.4	2.3	1,344	73.0	2.3	33.0	
1983	42.0	43.1	6.3	1.8	1,329	74.6	2.2	35.0	
1984	226.3	70.1	7.7	1.8	1,313	76.3	2.2	33.2	
1985	63.7	44.2	8.2	1.6	1,490	77.9	2.1	34.0	
1986	a	a	a	a	a	79.6	2.0	32.3	
1987	a	a	a	a	a	81.2 <sup>b</sup>	c	32.0	

1. Although SS highlights the graph of the non-deflated increase of 1,336% for the total health budget during the entire period 1978-1985, in a note SS gives data that allows sophisticated readers to calculate a real change of -10.3%.

2. Gross birth rate - number of live births per 1,000 persons, rate for 1970 being about 43. SS notes that variances in rate during the 1980s are due to vagaries of registration, mainly in rural areas.

a. No data given in source.

b. Coincides with IMF estimate.

c. Goal of 1.9% in National Health Plan.

Table 26 (Continued)

## Part 2. Data by Period

Years	Life Expectancy <sup>1</sup>		Fecundity <sup>2</sup>
	Male	Female	
1970-1975	60.2	64.3	a
1975-1980	62.2	68.3	5.0
1980-1985	64.1	70.5	4.0
1985-1990	65.7	72.3	3.2 <sup>b</sup>

1. At birth.

2. Fecundity rate = average number of live children born to woman of child-bearing age.

a. No data given in source.

b. Presumably data are estimated.

## Part 3. Data for Specific Years

Year	Pop. Age Less than 15	Population According to Place Size (%)		
		Dispersed		Concentrated
		Rural Less than 2,500	Rural 2,500-14,999	Urban 15,000+
1980	a	33.7	14.5	51.8
1981	43	a	a	a
1987	38	a	a	a

a. No data given in source.

Source: SS, Información Básica del Sector Salud, 1987.

as a share of GDP, the share declining from 2.2% to 1.6%, a change of -27% in real terms.

Looking beyond budgetary expenditures, SS examines a number of significant ratios, summarized here in Table 26, parts 2 and 3. Between 1980 and 1985 the number of patients per health-sector physician improved from 1,724 to 1,490. Meanwhile, the 1970 birth rate fell from 43 per thousand persons to about 32 per thousand by 1987, resulting in a declining rate in the change of total population growth to about 2%, and a decrease in the population age 14 or under from 43% in 1981 to 38% by 1987. Finally, although the majority of Mexico's population was living in urban places greater than 15 thousand persons in 1980 (which are easier to reach with education about modern health practices as well as government medical services), about one-third of the population still lived in dispersed rural places with less than 2,500 persons. For dispersed populations SS gives neither the 1970 figure (41.3%) nor the projection for 1990 (less than 30% at the rate for 1970-1980).

Although under De la Madrid SS begun to organize data on the national health sector (if without clearly identifying and analyzing problems), SS new coordinating role has been threatened by the Salinas team. Lacking IMSS's financial and institutional base that IMSS maintains because of its social security resources and its ally in INFONAVIT, in 1989 SS saw elimination of its entire unit for planning and analyzing health expenditure. (See Wilkie, 1990b.) The Salinas team apparently felt that the share of SS funds devoted to salaries was too high, but instead of eliminating units of minor importance, it wiped out its vital planning unit. By 1990 it had recognized that error and was moving to reestablish the unit, but certainly the damage was done to the role of SS in attempting to coordinate the National Health System.



### J. IMSS and Housing Under INFONAVIT

The Instituto del Fondo Nacional de la Vivienda para los Trabajadores (INFONAVIT--Worker Housing Institute) was founded in 1972 to relieve IMSS of the responsibility for the housing aspects of social security. IMSS had been charged in the social security law (article 234) with providing housing for its beneficiaries, but did so only to the extent that the responsibility for building and renting units did not interfere with its financial stability. Effectively, INFONAVIT has been charged with generating housing for all workers insured by IMSS (except IMSS employees who request loans from their own agency), but in a manner more realistic than in the past.

The Mexican Constitution of 1917 mandated that rural firms (or urban firms with with more than 100 employees) provide comfortable and hygienic housing for workers, for which they could charge the workers rent not to exceed .5% monthly of the assessed property valuation. Unfortunately, this housing requirement was unrealistic for its time and was never enforced. to be unworkable, according to INFONAVIT officials in 1989. Lack of financing for worker housing was the problem. Without subsidized loans few employers could afford the cost of supplying housing to all of their workers; and public housing efforts did not get under way until the 1930s under the presidency of Cárdenas. Ultimately, those units constructed went mainly to middle- and upper-income persons. Not until 1946 was legislations passed permitting credit institutions to finance low-rent projects and create a housing bank. The first large housing project for government workers, the Centro Urbano Presidente Alemán, was completed in 1950.

IMSS began in 1956 to build housing units (houses and apartment condominiums) to be rented to beneficiaries selected by lottery, and its stock grew steadily during the 1950s and early 1960s. In 1966 the total

number of houses reached 5,082, and condo apartments 5,772, with the total number of beneficiaries totaling 67,656. By 1972 IMSS rented 3,236 houses, and 5,676 condo apartments to 61,390 beneficiaries, figures which remained the same through the early 1980. Some 211,335 permanent IMSS employees, 43% in the Valley of Mexico, had won housing by 1984.

The IMSS stocks of housing and condo apartments remained at their 1972 levels because of changes in national housing policy. Although IMSS was relieved of the responsibility for building more units, it regarded its units as investments which it did not want to liquidate. However the economic crisis beginning in 1982 forced the IMSS to commence selling the units to their inhabitants. Sale of IMSS housing units has gone slowly because it constitutes a political problem: renters never paid more than a symbolic monthly fee and IMSS handled all of the maintenance; hence, renters resent having to buy units now which they cannot afford and for which they think themselves to be the de facto owners.

In 1972, constitutional reform of Article 123 stipulated that all private employers (except those employing domestic laborers and sports professionals) are required to contribute to INFONAVIT, regardless of the size or location of their activities. (INFONAVIT, like IMSS, is administered by a tripartite board representing employees, employers, and the government), The amounts contributed to INFONAVIT are credited to employee accounts at INFONAVIT and generate a fund from which workers can take out long-term, low-interest loans to purchase homes or condominiums. At age 50, or if pensioned under the regulations of IMSS, workers may withdraw the deposits accumulated in their name, less unrepaid borrowings. Or upon retirement at age 50 workers may continue their enrollment in INFONAVIT provided that they cover the 5% contribution paid by their last employer during their final 6 months of employment.

This reform was welcomed by large employers who were relieved of

full responsibility for worker housing, in return for paying to INFONAVIT 5% contribution of the base salary of each worker (not to exceed 10 times the minimum salary by geographic area). Small firms were pleased that employee housing provisions were not more onerous.

With the rise in employer contributions to IMSS and INFONAVIT since 1972, however, employers have grown increasingly nervous about social security and housing costs. Whereas in 1972 employers contributed 11.4% of each employee's integral salary to IMSS, and 5% of each employee's base salary to INFONAVIT, these rates increased by 1989 to 15.6% and 5%, respectively, of an employee's integral salary. Yet the shift of INFONAVIT contribution from employee base salary to integral salary was not as worrisome as a labor proposal that the employer contribution to INFONAVIT be doubled. Although these demands were not met, it is widely believed that the proposal to increase the INFONAVIT contribution to 10% became a reality in 1989.

When the total contribution by all sources to IMSS and INFONAVIT is taken into account, the cost to the economy is 26% of worker salaries, as seen in Table 18. This 26% (including only .9% from the government) constitutes a tax that certainly affects choice of production techniques, pricing of goods, and the outlook for employment in general. This total tax remained at about 23% from 1976 through 1988, but increased to the 26% figure in 1989 when the IMSS tax increased by 3% and the INFONAVIT rate came to include integral salaries.

Although labor union representatives have argued forcefully before the Mexican Congress that INFONAVIT needs more funds because housing is not keeping pace with population growth, the government realizes that total employer contributions to IMSS and INFONAVIT are already quite burdensome. The government itself has almost phased itself out of its former support of worker housing--its share in the total payment for each

worker to IMSS and INFONAVIT is now down to 3.5%. Although INFONAVIT certainly needs more funds, the government fears that any further increase in the employer "cost burden" for each employee could have 3 results:

- the private sector would be discouraged from creating new jobs;
- the formal economy would contract in favor of the informal economy, which does not pay any taxes at all let alone IMSS and INFONAVIT contributions;
- employers would organize a tax rebellion.

By the mid-1980s, discontent with INFONAVIT also surfaced among those rank-and-file workers who earn "too much" to be eligible to receive low-interest, long-term housing loans or to assume mortgages under those conditions. The problem lies in the fact that since 1984 INFONAVIT has allocated its loans to workers according to the following formula: 50% for persons making 1-1.25 times the minimum salary; 35% for 1.26-2.00 times the minimum salary; and 15% for 2-3 times the minimum salary. In other words, workers earning more than 3 times the minimum salary earn "too much" to be considered for loans, even though deposits for these loans are accumulating by amounts up to 10 times the minimum salary for their occupation and region.

This emphasis on helping the poorest workers stems from two pressures. On the one hand, many critics had generally complained (wrongly in the case of INFONAVIT) that prior to 1984 public-sector housing had tended to favor middle- and upper-income groups. On the other hand, the 1983 passage of a constitutional amendment supporting the universal right to housing tended to favor public-sector loans to low-income workers. However, in 1989 INFONAVIT recognized that it could not continue to subsidize the poor worker at the expense of workers with higher salaries, and it announced that beginning in 1990 it will abolish the above formula. Furthermore, to offset the previous policy which by favoring the poor

tended to reward them for having large families), INFONAVIT will now favor families with fewer children rather than more. (See Excélsior, May 19, 1989).

Beyond loan policy, INFONAVIT has been criticized severely for its geographically imbalanced loan portfolio. In fact, 41% of INFONAVIT's accumulated income is derived from employers in the Federal District, but only 15% of INFONAVIT's 1989 loans are scheduled for that region. (See Table 27.) Equilibrium between INFONAVIT income and outflow exists only for the states of Jalisco, México, and Nuevo León. Meanwhile, criticism has risen in the northern border states where the highly vocal maquila export industry has grown rapidly causing serious housing shortages. Maquila owners argue that there is a scarcity of skilled labor on the border not only because workers are attracted to higher salaries in the United States, but also because the extreme shortage of houses and apartments drives many workers north. Although maquila owners claim that they are being treated unfairly, in fact the northern states were scheduled in 1989 to receive 26% of INFONAVIT income, while contributing just 22% of INFONAVIT's accumulated income.

Also subject to criticism is INFONAVIT's allocation of credit. In 1988 INFONAVIT's 5 credit lines worth 62.3 billion pesos were spent for

1. 87.3% to consortia (labor unions or private contractors) to build condominiums and houses to be sold to individual workers;
2. 9.7% to individual workers to buy house or condo;
3. 1.9% to individual workers to build on their own land;
4. .9% to individual workers to improve or repair existing housing;
5. .2% to individual workers to acquire mortgages on existing units.

100.0% total (INFONAVIT, Informe 1988, p. 36 )

Many observers criticize this allocation of credit because it is seen to reinforce the power of corrupt labor union leaders, who too often

distribute housing rights through favoritism and corruption.

Most critics of INFONAVIT, however, recognize that the agency operates within a complex of factors. The agency's problems are not only internal but involve three interrelated factors beyond its control: (i) it was established, like IMSS, without an endowment; (ii) it must collect on many minimum salaries to generate enough funds in order to be able to make loans; and (iii) it operates within an income based on declining real wages since 1982. Meanwhile the administrative cost for INFONAVIT's activity is relatively low. It was 2% in 1988, up only slightly from 1.7% in 1978. (Compare the INFONAVIT Informe for 1978 and 1988, pp. 26 and 29, respectively.)

With regard to INFONAVIT's addition of new housing units to the national stock, the data are not clear. One set of data (Table 28), developed for the World Bank by the Secretaría de Desarrollo Urbano y Ecología (SEDUE, which since 1983 coordinates national housing policy), suggests that between 1983 and 1988 INFONAVIT completed 423,374 housing units or 28% of the units constructed by housing finance institutions. But a second set of figures (see Table 29), based on INFONAVIT and data supplied by the Mexican presidency, show completion of only 361,105 units during those 6 years. Data conflicts appear to be the result of INFONAVIT erroneously reports loans as having been made to finance construction when in reality they were made to finance acquisitions of existing housing stock.

The data will not improve without reform at INFONAVIT. The agency presents data poorly: since 1980 reports bury the number of units completed, do not give long-term series on completions, and do not give a full accounting for loans made under each credit line. INFONAVIT confuses matters further by giving data correctly (if incompletely) in tabular form, but it distorts the textual interpretation to inflate the total number of

TABLE 27

✓  
 INFONAVIT INCOME AND BENEFIT SHARES FOR 10 POLITICAL UNITS  
 WHICH DOMINATE ACTIVITY, 1972-1988

<u>Category</u>	<u>Accumulated Income</u> <sup>1</sup>		<u>Projected 1989 Outlays</u>	
	<u>% By State</u>	<u>% Totals</u> <sup>2</sup>	<u>% By State</u>	<u>% Totals</u> <sup>3</sup>
Total		100.0		100.0
Sub-Total for 10 Political Units <sup>4</sup>		<u>80.7</u>		<u>62.9</u>
Core Sub-Total		<u>50.3</u>		<u>25.0</u>
Federal District	41.2		15.0	
State of Mexico	9.1		10.0	
Northern Border States Sub-Total		<u>21.5</u>		<u>26.1</u>
Baja California	3.2		3.9	
Chihuahua	3.8		4.9	
Coahuila	3.2		3.7	
Nuevo León	6.5		7.3	
Sonora	2.4		3.3	
Tamaulipas	2.4		3.0	
Other Major States Sub-Total		<u>8.9</u>		<u>11.8</u>
Jalisco	5.7		6.5	
Veracruz	3.2		5.3	

1. Accumulated from 1972 through 1988.

2. Absolute total = 4,992 billion pesos.

3. Absolute total = 1,642 billion pesos.

4. For contrast, note that 3 the states (Campeche, Nayarit, and Zacatecas) which have contributed the least to INFONAVIT, each yielding only .3% of INFONAVIT's total accumulated income, are scheduled in 1989 to receive the following shares: .9%, .6%, and .9%, respectively.

Source: INFONAVIT, Programas de Labores y de Financiamientos para 1989, tables 8 and 9.

TABLE 28

## HOUSING UNITS COMPLETED AND TOTAL INVESTMENT BY AGENCY, 1983-1988

(Includes inflated data on INFONAVIT--see table 29)

Institution	Number of Units Completed					Total units 1983-88	As % of total	Total investment US\$ millions 1983-88	As % of total	
	1983	1984	1985	1986	1987					1988
Commercial banks/FOVI <sup>1</sup>	56,216	72,681	88,613	54,988	90,300	107,000	469,998	31.5	5,173	51.2
Payroll funds:										
FOVSSSTE	68,851	81,717	97,890	94,994	89,463	85,024	517,939	34.7	3,996	38.6
INFONAVIT	13,016	14,404	22,661	15,376	8,929	17,986	92,372	6.2	586	5.8
ISSFAM/FOVIMI <sup>2</sup>	55,246	67,151	74,777	79,000	80,162	67,038	423,374	28.4	3,294	32.6
	589	162	452	618	372	-	2,193	0.1	116	0.2
Public Agencies:										
FONHAPO <sup>3</sup>	13,262	125,607	108,868	83,366	88,856	84,505	504,464	33.8	936	10.2
State Housing Agencies	7,467	27,002	30,535	58,898	60,162	61,004	245,068	16.4	470	4.7
Others	N.A.	74,561	61,032	17,630	20,710	15,000	188,933	12.7	124	1.2
	5,795	24,044	17,301	6,838	7,984	2,501	70,463	4.7	342	4.3
Total	138,329	280,005	295,571	233,348	268,619	276,529	1,492,401	100.0	10,105	100.0

1. Mandatory loans by nationalized banks under Fondo de Operación y Financiamiento Bancario a la Vivienda.
2. Military housing.
3. Conventional investment program only.

Source: World Bank, "Draft Appraisal Report: Mexico; Second Low-Income Housing Project, Annex 3, citing Secretaría de Desarrollo Urbano y Ecología.



TABLE 29

INFONAVIT HOUSING UNITS COMPLETED,<sup>1</sup> 1972-1988(Corrects inflated data given in table 28)<sup>2</sup>

<u>Year</u>	<u>Number</u> <sup>3</sup>	
1972	152,250 <sup>a</sup>	}
1979		
1980	39,997	
1981	52,224	
1982	49,067	
1983	46,062	}
1984	56,957	
1985	63,260	
1986	72,238	
1987	73,040	
1988	<u>49,548</u>	361,105
Total	654,643 <sup>b</sup>	

1. New housing only.
2. In contrast to table 28 (which confuses "units" of housing with "credits" to build housing), this table excludes credits for purchase, expansion, and improvement of existing housing. This table also excludes an unknown (but small) number of new units completed with INFONAVIT loans under credit line 3 for construction on the loan recipients' own property--see text.
3. Housing units = houses and condominium apartments.
  - a. The Mexican Presidential Report to the Nation for 1982 gives the accumulated total to 1979 as 174,144. See José López Portillo, Sexto Informe de Gobierno, Anexo-Estadístico Histórico, p. 631, where I have also found other statistics to be inflated.
  - b. This accumulated total is 676,570, according to INFONAVIT, Programa de Labores y Financiamientos Para 1989, table 6, which offers no breakdown to prove its figure is correct.

Source: 1972-1979, INFONAVIT, Informe, 1979, pp. 51 and 56.  
 1980-1987, Miguel de la Madrid H., Sexto Informe de Gobierno, 1988, Estadístico, p. 207.  
 1988 INFONAVIT, Informe, 1988, p. 44

units constructed.

Knowing the defects in INFONAVIT data, it is possible to develop a long-term estimate for housing units constructed, as is illustrated by Table 29, which develops here figures by going beyond INFONAVIT data to figures reported by the Mexican Presidency. Data in Table 29 suggest that from 1972 through 1988 INFONAVIT cumulatively completed 654,643 housing units

While INFONAVIT has provided housing units for salaried workers who belong to IMSS, another agency, FONHAPO, has become an important source of financing for the construction of housing units for non-salaried persons with incomes below 2.5 times the minimum wage. With the aid of World Bank funding since 1985, FONHAPO (Fondo Nacional de Habitaciones Populares) increased its activities to account for 5% of all housing investment under President De la Madrid, compared to 33% by INFONAVIT. (See Table 28, the data for which are in question.) Originally a division in the Banco Nacional de Obras y Servicios Públicos beginning in 1949, FONHAPO was established in 1981 as a trust fund with the mandate to help low-income families. Data in Table 28 appears to involve mainly reconstruction of existing units.

FONHAPO is important to housing policy because it introduced a new model of financing which strongly emphasizes cost recovery. Where INFONAVIT traditionally operated with a low cost recovery rate of about 14%, influenced by a subsidized 4% fixed interest rate and an assumed 100% average inflation rate during the life of its long-term loans, the FONAHPO system links loan repayments to the minimum wage and ties the interest rates to adjustments in that wage. Since 1987 INFONAVIT has adopted the same model and cost recovery has risen to 70% for new loans. The World Bank and Mexico are cooperating to reduce subsidies further and allow housing institutions to achieve full cost recovery, eliminating explicit

and implicit losses on housing loans.

Despite FONHAPO's expanded role, it is the IMSS-INFONAVIT alliance that dominates Mexico's social sector policies. These two agencies not only must consider their combined affect on payroll taxes and cooperation and exchange of their registration lists of over 5 million employees each, to assure that no employer slips past the obligation to pay for social security and housing. The importance of these two agencies is complimented by the role of ISSSTE, which under President Salinas has been staffed by top-level personnel from IMSS.

#### **K. ISSSTE, PEMEX-PSSS, and ISSFAM**

Three agencies cover the social security needs of state workers not included in IMSS: ISSSTE (for some government employees); PEMEX-PSSS (for state oil company workers), and ISSFAM (for Mexico's military personnel).

##### **ISSSTE.**

The Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (State Workers Social Security System) provides a wide array of services. It offers social security and health care, as well as credit for housing (through its FOVISSSTE--Fondo de la Vivienda para los Trabajadores del ISSSTE) and credit for consumer goods. (ISSSTE excludes oil-industry workers in PEMEX, military employees in ISSFAM, and parastatal workers covered by IMSS.)

ISSSTE income is derived from employee deductions and government contributions which total 25.75% of the worker's basic salary. (See Table 30.) In theory, the employee pays 8% and the government pays 17.75%. Unfortunately the Secretariat of Finance (SHCP) has covered part of its own deficit spending by withholding from ISSSTE part of the government contribution for employee benefits. SHCP payments to ISSSTE have been in arrears since at least 1982, accumulating a balance owed which has seriously reduced ISSSTE operating and reserve funds. As of March 31, 1989, SHCP owed ISSSTE 712 billion pesos (approximately \$US 284.8 million

## ISSSTE: SOURCE OF CONTRIBUTORY FUNDING FOR EMPLOYEES

## A. % of Base Salary, Present

<u>Total</u>	<u>By Govt.</u>	<u>By Worker</u>	<u>Coverage</u>
9.00	6.50	2.50	Health care;
.75	.75	0	Occupational risk;
1.00	.50	.50	Mortgages loans through FOVISSSTE and loans to repair or improve housing or to buy land;
1.00	.50	.50	Consumer loans;
1.00	.50	.50	Services to "improve the quality of life of ISSSTE beneficiaries;
13.00	9.00	4.00	Pensions, reserves, cultural services, and development of housing for rent or sale;
<u>25.75</u>	<u>17.75</u>	<u>8.00</u>	Total

Source: Ley del Instituto de Seguridad y Servicios Sociales de los  
Trabajadores del Estado, 1987, articles 3, 16, 21.

## B. % of Base Salary, Proposed

<u>Total</u> <sup>1</sup>	<u>Coverage</u>
9.50	Health
6.00	Housing
1.00	ISSSTE stores
.25	Occupational risks
1.00	Personal loans
8.00	Other social and cultural services, idemnifications, and pensions (including about 5% for priority creation of actuarial reserves covering retired and disabled persons).
<u>25.75</u>	Total

1. No breakdown given in source; actuarial reserves for future pensions and FOVISSSTE would need to be set aside before expenditures are made in any year. Source expected (wrongly) passage of the proposed law in 1988 and wrote as if the changes had already taken place.

Source: Soberón, Kumate, Laguna, eds., La Salud en México: Testimonios  
1988, tomo III, volumen 1, 1988, p. 263.

dollars), according to ISSSTE's computer printout entitled "Evolución de la Reserva Actuarial." This amount is equivalent to almost 70% of ISSSTE's operating expenditures from January to September 1988 and has continued to rise. (See SHCP, Estadísticas de Finanzas Públicas; Cuaderno Ampliado, January to September 1988, p. 109.)

Although SHCP can argue that it is withholding the government's contribution to ISSSTE to help keep the nation afloat, and/or that the reserve is simply invested with SHCP rather than on the open market, SHCP pays below market-interest rates to ISSSTE. The failure of SHCP to support ISSSTE is costly to social security for state workers in two ways: ISSSTE not only loses from the artificially low interest rate on the whole amount owed by SHCP (in effect, ISSSTE is loaning subsidized money to SHCP), but it also must borrow at market rates to overcome the shortage of working capital. For example, In June 1989 it received a 34% interest rate from SHCP but paid a 48% interest rate on the market to cover its shortfall. A law has been proposed which would implicitly require SHCP to pay the amounts due to ISSSTE. however this is a difficult political and economic matter yet to be resolved.

The ability of ISSSTE to serve its membership has suffered greatly since 1982. Most of its consumer subsidies have been terminated, meaning that its retail stores offer little advantage over private-sector stores. Because the government is trying to limit and phaseout subsidies, and perhaps because ISSSTE stores were open to the general public from 1985 to 1988 in order to make up for shortages after the 1985 earthquake, ISSSTE stores are now trying to reestablish their exclusivity for state employees. But budget cuts have meant the suspension of automobile loans and delays in the completion of new housing units. In addition, ISSSTE health services are severely criticized for long waits, begrudging service, and general malpractice.

## SURVEY OF OPINION ON ISSSTE HEALTH SERVICES, Mid-1988

(Average of the scores for clinics, hospitals, and specialized hospitals)<sup>1</sup>

## Part 1.

**Ratings by ISSSTE Beneficiaries<sup>2</sup>**

<u>Satisfaction</u>		<u>With</u>
<u>Score</u>		<u>Personnel</u>
8.1	C+	Physicians
7.5	C	Nurses
7.6	C	Lab technicians
8.0	B	Radiology technicians
6.8	C-	Receptionists
7.8	C	Overall rating

**Part 2. Ratings by Physicians According to Location<sup>3</sup>**

<u>% Physician Rating as A or B</u>		
<u>in</u>	<u>in</u>	<u>Relations</u>
<u>Clinics</u>	<u>Hospitals</u>	<u>with</u>
85	96	Patients;
94	93	Colleagues;
95	83	Supervisors;
87	76	Administrators and directors

## 1. Scale for ranking by respondents:

10	A	Very high satisfaction
9	B	Satisfaction
7.5	C	Ordinary
6	D	Dissatisfaction
5	F	Very high dissatisfaction

2. Number of users surveyed was 4,124 with regard to clinic service and 1,472 for hospital service.

3. Number of physicians surveyed was 1,064 in clinics and 1,308 in hospitals.

Source: Adapted and calculated here from data in [SS,] Encuesta sobre Satisfacción de Usuarios y Prestaciones de Servicios; Metodologías y Resultados, tomo III, September 1988), pp. 28-32, 45-46, 95, 120, 140. This survey took place under the coordination of Secretary of Health Guillermo Soberón.

To evaluate such criticism, the results of a 1988 survey concerning user opinion about the quality of ISSSTE health services are summarized in Table 31. Surveyed were 4,124 recipients of outpatient service and 1,472 users of hospital services. Overall, ISSSTE health services were rated as average, with physicians rated higher than laboratory technicians and support staff in terms of patient satisfaction. Strongest criticism appears to come from ISSSTE's university subscribers who have relatively high expectations of service while lower echelons of government employees have less knowledge by which to judge ISSSTE services and are grateful for the low-cost health care.

That ISSSTE physicians are ranked by users as high as they are (8.1 on a scale of 1 to 10) is somewhat surprising given the fact the same survey found 75% of ISSSTE's physicians in the Federal District were dissatisfied with their levels of pay. On the other hand, physicians ranked other aspects of their work with ISSSTE quite highly, as Table 31 shows. One outstanding issue is the fact that while physicians see themselves as professionals, they are not treated as such in their legal situation of employment.

The last attempt by government physicians to define themselves as professionals rather than as health "workers" failed in 1965 with the so-called "Doctors' Strike. The doctors sought to reorganize their legal standing for recognition as professionals who would define their own conditions of employment rather than serve as laborers who punch time-clocks. Ironically, the physicians tried to escape their status as "workers" by organizing a union.

The failure of the Doctor Strike has been interpreted at least three ways. (See Cleaves, 1987, pp. 74-77.) From the physicians' point of view, crushing of the strike by the government diminished the morale and prestige of physicians, which decreased their interest in providing quality

government health services. From the government's point of view, professionalization would have allowed physicians to do less work for society, and it would also have given the increased political power to one well-organized and well-educated group. From a third perspective, many physicians sided with the government to prevent the development of a professional or corporate consciousness because they supported the government bureaucratization of health care; the government retained control of organization, procedures, and medical building and equipment, physicians retained the ability to work in the morning for the government and for themselves in the afternoon and evening.

With the decline in social security and health funding since 1982 and the collapse of physicians' salaries, the idea of organizing a union cum professional association is again on the horizon. Physicians realize that they must develop a new legal standing in relation to the labor code if they are to have any real say in a health system dominated by bureaucrats. Furthermore, the modernization of Mexico requires that professional organizations establish the highest standards of conduct and work levels. While Mexico is handicapped by labor laws and custom which give power to unions to prevent overtime work, professional physicians might think less about time more about doing a good job, regardless of time required.

The morale of physicians employed by the government is also affected by the reputation of the health sector in which they work. To evaluate the comparative reputation of sectors, the results of an informal survey of physicians about their ranking of health sectors is given in Table 32. ISSSTE ranks in the middle, except for specialized hospitals, where it receives lowest prestige rank. Although IMSS is often given credit as being the premier place for prestige of employment in the national health care system, the survey results reveal that such a view does not hold true for the specialized hospitals. SS, which ranks at the bottom for clinics and



TABLE 32

RANKINGS OF IMSS, ISSSTE, AND SS FOR HEALTH SERVICE,  
ACCORDING TO SURVEY OF PHYSICIANS, 1989

Physicians' Choice			
for Prestige			
Rank	Clinic	General Hospitals	Specialized Hospital
1	IMSS	IMSS	SS <sup>1</sup>
2	ISSSTE	ISSSTE	IMSS
3	SS	SS	ISSSTE
for Service			
1	IMSS	IMSS	SS
2	ISSSTE	ISSSTE	ISSSTE
3	SS	SS	IMSS

1. The SS coordinates the following institutes (all of which form part of INDS as given in table 25, except the last two) founded as follows:

- 1943 Hospital Infantil de México
- 1944 Hospital Nacional de Cardiología
- 1946 Instituto Nacional de Nutrición
- 1952 Instituto de Neurología y Neurocirugía
- 1959 Instituto Nacional de Enfermedades Respiratorias
- 1970 Instituto Nacional de Pediatría
- 1977 Instituto Nacional de Perinatología
- 1979 Instituto Mexicano de Psiquiatría
- 1987 Instituto Nacional de Salud Pública (fusing Centro de Investigación en Salud Pública, Centro de Investigaciones sobre Enfermedades Infecciosas, and the Escuela de Salud Pública de México,

according to Soberón, Kumate, Laguna, eds, 1998, tomo III, volumen 3, p. 12.

Source: Summary rankings based upon my interviews with physicians representing the three agencies.

general hospitals, wins top rank for prestige of specialized hospitals.

In terms of reputation for quality of medical service provided (see Table 32), ISSSTE consistently holds the middle rank for service. IMSS ranks at the top for clinics and general hospitals, SS for specialized hospitals--the same pattern as for prestige. SS is seen by physicians to offer the poorest service, except for specialized hospitals where IMSS ranks lowest.

Although some Mexican health planners have called for merging the three health sectors to avoid duplication and rationalize services, the existence of competing sectors serves to stimulate physicians to improve the agency in which they work. This stimulation would be weakened if the agencies were lumped into one monolithic system.

While much of ISSSTE appears to be mired in mediocrity, the agency is making headway on at least two fronts. First, a proposal has been made to revise the Law regulating ISSSTE, and it calls for accumulation of actuarial reserves to meet future retirement and housing needs (see Table 30), which would enhance its financial base. Second, the agency has been rethinking counterproductive arrangements such as the one whereby metro workers became members of ISSSTE for all purposes but medical. In this case, separation for medical services was costly for STC-SM, the deficit running about 16% more than permitted by law and requiring unnecessary duplication of primary health care units. Restructuring of ISSSTE's arrangements with various unions and associations could significantly improve efficiency. (For discussion of these matters, see Soberón, Kumate, Laguna, eds., 1988, tomo III, volumen 1, p. 161.)

#### PEMEX-PSSS.

PEMEX's Program of Social Security has enjoyed a privileged position among the state social security agencies since it was established in the late 1930s, soon after President Cárdenas expropriated the foreign-owned

oil industry in 1938. As part of retirement benefits, for example, children of retirees have "inherited" a starting with PEMEX.

For health services in 1987 PEMEX Programs de Seguridad y Servicios Sociales had the same share of the national health budget as did all of Mexico's national health institutes combined, as is shown in Table 25. While PEMEX-PSSS served 210,157 workers, all other health institutes served the entire population of Mexico. However, as part of Mexico's ongoing efforts to reduce corruption within PEMEX, President Salinas may provide the basis on which to rationally limit social security benefits and health services provided to PEMEX employees.

PEMEX, which operates its social security program as part of its yearly budget, has experienced a sharply reduced actuarial reserve for disability and retirement benefits since 1980. Where in 1980 the reserve equaled \$US 116.9 million, in 1987 the figure was \$US 57.1 million (according to data on account 2301 supplied by PEMEX, Subdirección de Finanzas, Coordinación Ejecutiva de Contraloría, Gerencia de Contabilidad, and here converted to dollars at the respective exchange rates of 23.26 and 2227.50).

Meanwhile, between 1980 and 1987 the PEMEX permanent workforce increased by over 30,000 persons to a total of 91,760 employed. (See PEMEX, Anuario Estadístico, 1987, p. 141.) In addition, many of the 86,985 temporary workers were accumulating experience that will give them the possibility of permanent employment in the future. For 1987, PEMEX-PSSS had 1,400,300 persons registered as eligible for benefits, including permanent and temporary workers as well as their family members.

As part of the Salinas reform program, PEMEX has reversed those trends and by mid-1989 had dismissed 30,000 workers, with plans to reduce another 30,000. PEMEX-PSSS is especially concerned about the bureaucracy required to administer the generous benefits for its workers who have been

able to retire at ages 45 to 50 after only 20 years of service. To avoid the need to administer a biweekly payroll for retirees, the agency is considering making a lump sum payment to each worker upon retirement.

As part of the PEMEX reforms of 1989, technical and professional workers have been separated from the labor unions into which they had been forced in 1976. Where the union had done much to inflexibly block engineers from working overtime regardless of the inefficiency caused by such blockages (see Cleaves, 1987, pp. 78-80), engineers once again can work as professionals as they did between 1940 and 1976. However, breaking up unions has meant reduced job security.

Given this instability and shifting definition of its permanent work force, PEMEX has not yet developed projections on future retirement and disability pensions that remain unfunded. As soon as the situation stabilizes, PEMEX-PSSS should determine its future liabilities and make its projections available for independent analysis.

#### ISSFAM

With regard to ISSFAM, its role is to coordinate social security services for the army, air force, and navy. Established in 1976, ISSFAM is charged with administering benefits such as health, retirement, subsidized retail stores, and loans. (See Diario Oficial, June 29, 1976.) ISSFAM administers housing benefits through its own FOVIMI--Fund for Military Housing. Although ISSFAM organizes health care for personnel on active duty, retirees, and their families, it has not tried to supercede the roles of the Secretaries of Defense and Navy, each of which have their own basic health care and hospital system. For medicines and cases which require specialists, services have been contracted with other agencies such as ISSSTE and DIF.

ISSFAM has yet to rationally organize social security for the military. Because the Secretariats of Defense and Navy are protective of their own health systems (the Dirección General de Servicios Médicos and

the Dirección General de Sanidad Naval, respectively), and because they maintain classified data, they hesitate to cooperate with each other let alone any other government agencies. For example, information on the number of persons registered to receive benefits and the number of military health personnel is needed by such agencies as SS and the the Secretary of Labor in order to complete reliable data sets for assessing current issues and projecting future trends in national development. Yet the military does not usually respond to other secretariats seeking data. The problem is how to compel the military to be responsive in providing data needed to estimate the extent to which Mexicans are covered by social security and the financial resources required.

#### **L. Unfunded Present and Future Social Security Obligations**

As seen throughout this study, we know little about the unfunded future social needs in Mexico. Only ISSSTE admits to having developed long-term actuarial projections (but will not release the results). PEMEX-PSSS does not seem to have developed or to be developing any projected actuarial obligations. ISSFAM treats all matters as state secrets and withholds information from other Mexican government agencies. IMSS does a yearly actuarial projection for financial balances but it is limited to a time horizon of 3 years.

IMSS is now developing long term actuarial calculations but these may await more current data than that of the 1980 population census, which is the base for present projections. For example, data from the 1990 population census will provide information on changes in family size used to estimate future obligations. Currently family size is said to be 3.2 dependents (see Table 26), although IMSS believes that the figure to be used for projections beyond 2000 may be 2.3 dependents. In any case, IMSS claims that its programs will be financially sound at least through the year 2000, with the agency operating on a pay as it goes basis, because 38%

of the Mexican population is under age 15 and will constitute a large enough share to generate an "adequate" cash flow. This may be true, although "adequate" may actually mean an inadequate budget for services and salaries.

With regard to present financial needs, ISSSTE and IMSS clearly have the most pressing needs. ISSSTE will have serious financial problems so long as SHCP refuses to pay the back-premiums that it owes. As of mid-1990 SHCP owed ISSSTE a total of \$US 285 million. Because of the resultant liquidity problem, ISSSTE has continued its practice of shifting funds from the retirement account to cover day-to-day operations including health programs. ISSSTE hopes to achieve a change in its governing law so that it can hold in trust amounts collected for each of its coverages rather than pool amounts as at present. (Inter-fund loans would be permitted in the proposal, with interest charged to maintain the integrity of each fund.) The potential cost of these revisions required a delay in seeking legislation until actuarial projections were made. Apparently the ISSSTE projections for the period 1989-2004 are now available, but they are treated as classified data until political support can be mounted to cover the potentially high unfunded future ISSSTE obligations.

Until ISSSTE's governing law is changed, ISSSTE and SHCP will continue to be at odds. On the one hand, ISSSTE says that it is unable to implement a proposed rationalization of the premium structure according to account needs. On the other hand, SHCP argues that it is better to withhold its contributions to ISSSTE, in effect putting them into an interest-bearing trust, than to pay the amounts to ISSSTE and see them wasted in mismanagement and on "frivolous" expenditures. SHCP argues that ISSSTE's liquidity crisis is necessary to force internal reforms. The Central government is encouraging ISSSTE's internal reform by transferring IMSS leadership into the ISSSTE structure.

Whereas ISSSTE has a liquidity problem because SCHP has paid the government's contribution, IMSS has a liquidity problem caused by four factors. First, there has always been a lag between expenditures and payment of premiums by employers (who also send to IMSS the employee share deducted from salaries). In the past, employers paid on a bimonthly basis, with payments falling between days 15 and 20 of the month, thus leaving the first 2 weeks of each month with a cash-flow shortage.

Second, IMSS income and expenditures are closely tied to fluctuations in the economy. Hence, even though the IMSS percentage on salaries has increased, its absolute amount has declined since 1982 because the economic crisis has caused a contraction in formal employment.

Third, inflation has driven up IMSS's costs for three critical categories: medicines (the raw materials for which are imported at high exchange rates); maintenance of medical equipment (the spare parts for which also are imported); and salaries of IMSS employees.

Finally, because IMSS pensioners had seen the value of their pensions seriously eroded by inflation, IMSS raised the minimum basis of its pension benefit calculations in 1986. This change effected the ratio of (a) the percentage basis for calculating pension benefits to (b) the percentage basis of minimum salaries upon which the tax on workers' salaries is calculated, with a ratio of 1.0 indicating balance. From 1983 to 1985 ratios of .8 favored the accumulation of reserves. With the change in the ratio to 1.1 beginning in 1986, IMSS has paid out pensions at a rate that cuts into its accumulation of reserves. (See IMSS, Informe Financiero y Actuarial, p. 8.)

To improve liquidity, IMSS won 2 changes in the social security law. In 1984 it won elimination of the cap on premiums (which had been equal to 10 times the minimum salary for the relevant occupation in the Federal District); and in 1987 it won changes to speed collections. The new law

shifted premium collection from a bimonthly basis to a method of collecting a downpayment for the following bimonthly period calculated at half of the payment from the previous bimonthly period. This change provided some catchup, but continued inflation soon eroded much of that benefit, and IMSS instituted in the same year "factoring" of employer advance payments.

Since September 1987 employers make factored advance payments to IMSS early in each month against amounts due to be paid to IMSS later in the month. These payments help to cover operating costs during the first 2 weeks of each month when there is a shortfall of operating funds. But this new burden on employers is not enough to overcome the recession-caused decline in absolute IMSS income.

To help cover the resulting shortfall in operating costs, IMSS has been using short-term bank loans offered by the nationalized banking system since 1982. Although the loans are made without specific collateral, they carry the high interest rate of the open market in Mexico. These funds must be borrowed at the end of each month so that there is a cash balance with which to begin payment of accounts during the period of financial shortfall at the beginning of the next month. The unfortunate need to pay high interest rates cuts further into IMSS operating costs.

These problems of illiquidity which seriously hamper IMSS seriously are complicated by yet another factor, that of the mis-synchronization in balancing the IMSS books according to liquid assets and liabilities. Although IMSS claims to have a favorable asset to liability ratio of more than 2:1, it is not able to easily show this ratio liquidity because of timing.

IMSS assets are upon the following components: (a) the nearly premiums due from employers, (b) the net value of stockpiled medical and administrative supplies for immediate and reserve use, and (c) amounts owed to IMSS, mainly repayments by employees who have received 30-90 day loans.



IMSS liabilities are represented by (a) 30-day loans, including future interest, that it owes to the banking system; (b) suppliers' bills, due 30 days after receipt; (c) payment due to employees for Christmas bonuses, equal to 3 months salary; (d) undetermined amounts owed to inefficient government agencies which are always delayed in billing--for example electricity, gas, water, phones, etc.

The IMSS problem of illiquidity is summed up in Table 33 where data are adapted from the IMSS "Statement of Accounts for December 31, 1988, and Projections for 1989." These projections foresaw a situation whereby, even with borrowing, efficient use of resources, and the sale of housing units, IMSS needs for 1989 an additional \$US 83 million in 1989 to cover operating costs at the current inadequate funding levels for health care and pensions.

(Beyond deficits which needs to be covered to maintain operating costs at the subsistence level, there is an urgent need to increase health personnel salaries. IMSS physicians and other health care personnel cannot and are unlikely to continue working at pay levels which leave them personally poor and professionally without morale, as IMSS' effectiveness seems to disintegrate before their eyes.)

The relation of operating funds to reserves is shown in Table 34. Until 1979 all IMSS reserves were implicitly invested in land, equipment, and construction of facilities; legislation of 1979 established beginning in 1980 the requirement for explicitly developing cash reserves to cover future pensions, but specified that the ratio of explicit/implicit reserves would limit explicit reserves to 15%, with implicit reserves being at least 85%. IMSS maintains correctly that if it had developed a larger share of explicit reserves that its cash would have either evaporated due to inflation or been appropriated by the government to cover its own deficits.

TABLE 33

## IMSS ESTIMATED SHORTFALL IN OPERATING FUNDS, 1989

<u>Category</u>	<u>Million Dollars</u>		<u>Balance</u>
	<u>Debit</u>	<u>Credit</u>	
Lag in income	483,000		
Covered by			
30-day notes		120,000	
Sale of assets and use of reserves		280,000	
Shortfall			83

Source: Calculated from data in IMSS, Estado de Cuentas al 31 de Diciembre de 1988 y Proyecciones para 1989.

TABLE 34

IMSS PROVISION FOR  
ACTUARIAL RESERVES AND OPERATING FUNDS AS A SHARE OF INCOME FROM PREMIUMS,<sup>1</sup>  
SELECTED YEARS, 1944-1988

Year	A.	B.
	Cash Reserves <sup>2</sup>	Operating <sup>3</sup> Funds
	%	%
1944	0	73.6
1949	0	27.8
1959	0	18.9
1969	0	6.7
1979	0	12.4
1980	3.6	17.9
1981	2.1	15.5
1982	2.8	13.4
1983	5.7	1.1
1984	4.2	1.5
1985	5.8	7.5
1986	7.3	4.0
1987	4.5	1.2
1988	1.4	.4

1. Premiums paid by employers, workers, and the government; includes government contribution for social programs such as COPLAMAR for which no premiums charged.
2. Until 1979 all IMSS reserves were implicit (invested in land, equipment, and construction of facilities); legislation of 1979 established beginning in 1980 the requirement for explicit reserves (cash to cover future pensions), but specified that the ratio of explicit/implicit reserves would be held in percentages 15/85.
3. Net result of consolidated balance: (total income) less (total outlays) less (provision for reserves in column A) less (adjustments for prior years) = share available for operating funds during following year.

Source: Adapted and calculated from data in IMSS, Memoria Estadística, 1987, p. 225; and IMSS, Informe Financiero y Actuarial, 1988, p. 9.

The provision for IMSS operating funds as a share of income from premiums (that is, the amount carried forward to the following year after deducting IMSS total expenditures and including provision for cash reserves from total income), began at 74% in IMSS' first year of activities in 1944. By 1959 the share of operating funds fell to less than 19% where it remained until 1983. Since 1983 the share of operating funds has collapsed, averaging only 2.6% over the 6 years and falling to .4% in 1988.

Although IMSS is hopeful that the economy will recover somewhat in 1989 and thus generate greater income from premiums paid on salaries, the aging of the population suggests that in the future payouts for pensions will become an increasing burden. By the year 2000, it is estimated that 4.6% of the population will be age 65 or over compared to less than 3.5% in the mid-1980s. Much of this population will be covered by IMSS. Indeed, the share of IMSS permanently insured, age 65 and over, changed from 2.3% in 1978 to 2.6% in 1987 (see Appendix 6), and the number of pensions paid by IMSS since 1978 continues to rise inexorably, as seen in Chart 2.

In the meantime, IMSS cash reserves have lagged. Although cash reserves as a share of income from premiums reached 7.3% in 1986 (see Table 34), their average has been 4.2%, and they fell to 1.4% in 1988. Clearly IMSS hopes simply to survive this difficult period which is eating into both cash reserves and operating funds, leaving the problem of unmet future pension needs to an era of economic recovery.

The situation of IMSS reserves at the end of 1988 is shown in Table 35. Explicit or cash reserves totaled only 7.4% of total reserves, half of the share required. Clearly cash reserves are inadequate to meet long-term IMSS needs. Implicit reserves of \$US 2.5 billion are locked mainly into buildings and facilities, which include \$US 4.3 million in housing units scheduled to be sold since 1982. Where the housing units seem to have been

TABLE 35

IMSS ACCUMULATED EXPLICIT RESERVES (CASH) AND  
 IMPLICIT RESERVES (INVESTMENT IN BUILDINGS, EQUIPMENT, LAND),  
 1988

(Billion Dollars)

<u>Category</u>	<u>Sub-Totals</u>	<u>Totals</u>
Total		<u>2.7<sup>a</sup></u>
Explicit (actuarial reserves) Subtotal		.2
Implicit Subtotal		2.5
At Cost	4.7 <sup>b</sup>	
Buildings and facilities	2.8	
Equipment	1.4	
Construction in process	.1	
Land	.2	
Other	.2	
Depreciation	-1.7	
Revaluation	- .5	

a. Total = 6,285,392 million pesos, converted at 2,295 to the dollar.

b. Includes 4.3 million dollars in housing units scheduled to be sold.

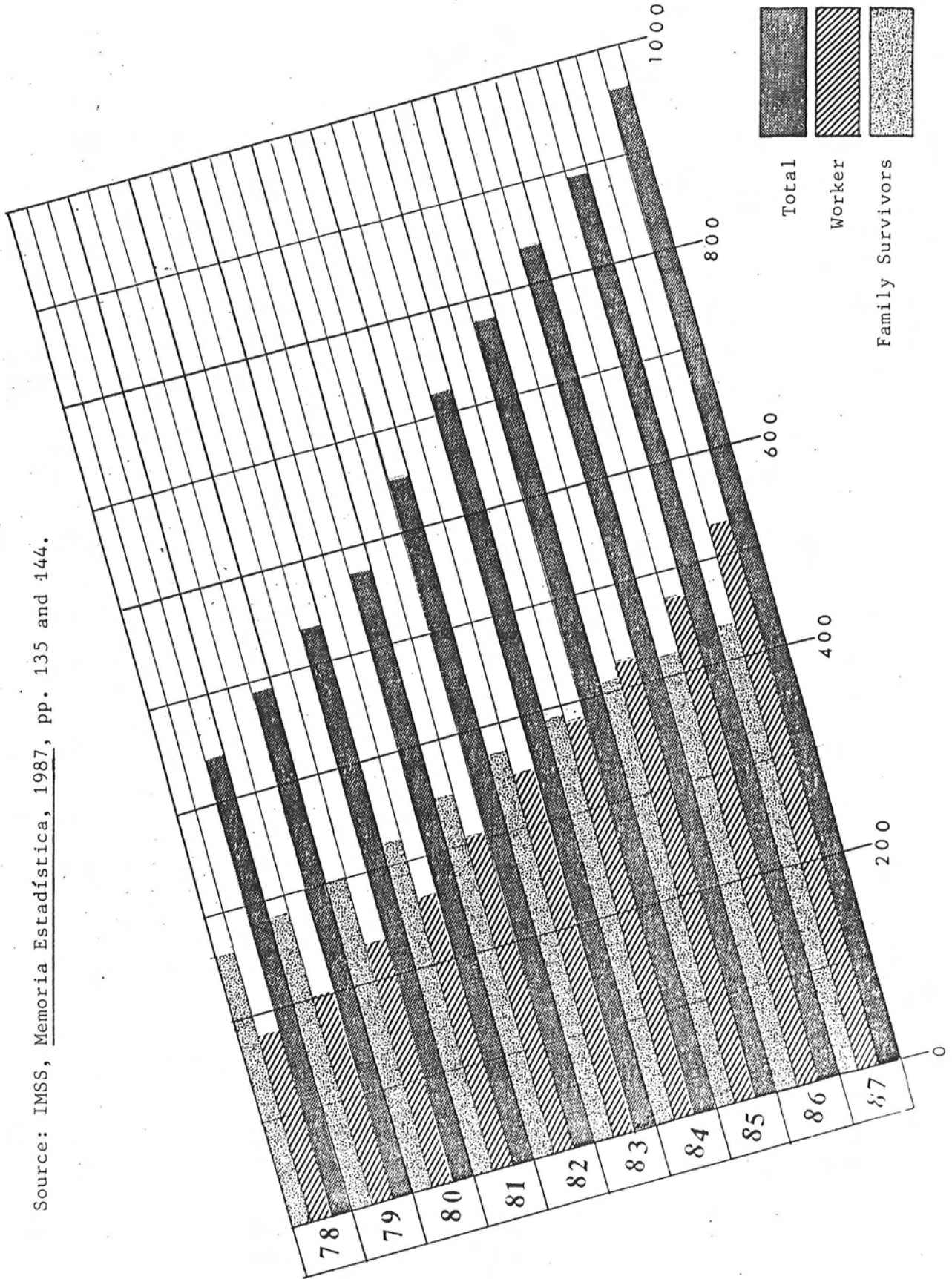
Source: Adapted and calculated from IMSS, "Balance General Reexpresado al 31 de Diciembre de 1988."

CHART 2

IMSS PENSIONS PAID FOR ICVM AND PERMANENT WORK INJURY, 1978-1987

(Thousands)

Source: IMSS, Memoria Estadística, 1987, pp. 135 and 144.



revalued downward to reflect the reality in difficulty of recovering money "invested" there, SCHP believes that the IMSS buildings are undervalued.

To overcome the vicious cycle wherein IMSS income lags behind expenditures (and forces it to borrow at high market interest rates and cut into its reserves), and to rebuild its financial base, IMSS has 2 options, neither of which appear feasible.

First, the Bank of Mexico could issue 5-year debenture bonds on behalf of IMSS, with partial annual repayment beginning in the third year and an interest rate slightly higher than bank rates. Given Mexico's attempt to reduce its internal debt, however, this option seems unlikely.

Second, IMSS could begin to liquidate its assets. IMSS is already selling its housing units, which as already mentioned is a slow and problematic process, so the next step would be to sell the buildings used to deliver service. The sale of clinics and hospitals would, however, present a serious political problem and would further reduce services already restricted by the economic crisis.

(With regard to disposal of buildings not related directly to its main charge of administering health and pension programs, IMSS is already considering several options. It can sell or lease vacation centers and theaters; and it can sell its laundries or rent the excess capacity to the private sector.)

Because these 2 financial options do not appear feasible, consideration must be given to (1) amounts and types of external financing that Mexico needs, and (2) non-financial proposals for reform.

### III. Recommendations

#### **A. Proposals for Improving Social Security: IMSS, SS, INFONAVIT**

Given (1) the implausibility of domestic solutions to resolve IMSS problems, (2) the that high IMSS and INFONAVIT payroll taxes cannot be raised further without seriously depressing the formal economy, and (3) that IMSS is now interlocked with the larger problems of SS and INFONAVIT, the World Bank should consider lending to the three Mexican agencies in order to help resolve the social bottleneck constraining efficient economic growth. Such social loans are important to mitigate the negative social impact of the long-term economic crisis dating back to 1982. Furthermore, continued devaluations will erode Mexico's ability to increase urgently needed expenditures for social service, which will make external financing even more important.

Although the World Bank has helped the Mexican government to provide low-cost housing for non-salaried workers, that is only one aspect of the larger problem of the larger problem of health and housing which has reached serious proportions for the vast majority of Mexicans. The crisis situation in the social underpinnings for economic growth encompasses, for example, deficient diet and health services, the lack of sanitary food and water, inadequate pension benefits, and costly shortages of operating capital and insufficient affordable housing needs. Loans are needed to help Mexico generate a coordinated strategy to reform its health sector, by rationalizing services in relation to costs and by eliminating duplicative and inefficient services. This should be done in a way which improves the morale of government workers, especially physicians who are concerned about the vulnerability of their profession to union bureaucracies.

The difficult situation for the social security and health sector



described above is partially resumed in the budgetary data shown for IMSS, ISSSTE, and SS in Table 36. Between 1976 and 1987 the combined expenditures of the 3 agencies decreased 48.1%, while their share of expenditures in GDP fell from 4.6% to 2.4%, a decline of 47.8% that matched the collapse of the economy.

It would appear that IMSS, INFONAVIT, and SS could effectively use World Bank loans of about \$US 100 million each, to help them reestablish their financial base and rationalize scarce resources, as they resolve the social bottlenecks to economic productivity. These loans would be made conditional upon reform of the interlocking social care provided to the population with and without formal social security.

#### IMSS.

In facing the predicaments and decisions set forth at the outset of this study, IMSS must face the facts constraining service delivery. For example, the IMSS has claimed that health care coverage of Mexico's population was 40% in 1986, up from 28% in 1978. In reality, however, when available IMSS health resources are taken into account (including number of physicians, nurses, hospital beds, operating rooms, x-ray equipment, and lab facilities) the maximum potential coverage that IMSS could offer in 1986 was 22%, up only from 19% in 1978. (See estimates by Boltvink, 1987, p. 324.)

In addition, IMSS should recognize in its internal policy decision-making that it cannot do everything well. For example, by confusing its role on behalf of premium paying workers with a role on behalf of non-premium paying workers, it becomes impossible to fix either true costs or to help all the persons it should. It appears that health costs for COPLAMAR are more than "administrative costs," which are absorbed by IMSS, and thus that IMSS insurees are implicitly subsidizing the health

care of COPLAMAR beneficiaries. More specifically, IMSS should transfer COPLAMAR to SS and institute accounting procedures which clarify the real costs of COPLAMAR functions, whether in IMSS or SS.

With regard to IMSS's own accounting, it should reestablish categories eliminated in 1986, thus restoring the series on historical expenditures needed to assess relative costs by function for medical assistance, pharmacy and laboratory expenses, hospitalization, transportation, child-care centers, and social and cultural benefits.

If IMSS is to maintain its role as the lead institution in providing health care and pension benefits to a population projected to be over 100 million by the year 2000 (see Appendix 5), IMSS must rationalize its overlapping services and eliminate nonessential programs provided by the various other social security and health agencies, each of which internally also has overlapping services and tasks unrelated to its major missions. If duplicative services are eliminated and procedures streamlined, and if nonessential programs are transferred to other agencies, the funds and personnel could begin to be used for more productive activities.

Several examples will suffice. IMSS should get out of the business of operating travel services and vacation centers for workers. (In effect IMSS runs hotels for over 2.5 million guests yearly, as shown in Chart 3.) Further, IMSS should transfer its 200-odd childcare centers and 34,000 enrollees to DIF, and break its ties with its 74 theaters. IMSS and ISSSTE should stop competing for the same groups from which to expand enrollees in order to justify expansion of budget and personnel; it is clear that the addition of more IMSS enrollees will not pay for the services required. IMSS and ISSSTE should coordinate health privileges to allow ease of use between the agencies; and retirement benefits should be transferable between the institutes.

With regard to IMSS medical personnel needed for a more efficient administration, some of the benefits received by specialists (who receive few patients) should be shifted to the generalists (who see masses of people daily and make so many difficult initial diagnoses). This would improve the frontline of medicine in Mexico. In any case, IMSS (and the other health agencies) could allow persons needing medical help to go directly to some specialists such as optometrists and podiatrists, thus saving time and resources of both medical personnel and their patients.

IMSS is streamlining its administrative operations to eliminate unnecessary paperwork (Madrigal, 1989), but it urgently needs to computerize all of its operations. At the least it needs to reestablish the computerized identification system for beneficiaries that was essentially in place for the Federal District by 1982, but fell into disuse after that.

IMSS relations with the medical staff need to be put on a professional basis, breaking the tie to the old corporate system which shared power with inefficient and/or corrupt union leaders. Physicians must be encouraged to develop socially conscious professional associations to improve public service and establish responsible levels of work for fair pay. With the current collapse in IMSS salaries, physicians are using IMSS as a training system to move directly into the private sector, in effect privatizing medicine. Ways need to be found for mature private physicians to repay the value of this training to IMSS through service or monetary contributions coordinated by professional associations. (On a possible new role for professional associations, see further discussion below in relation to SS.)

A World Bank loan to cover operating costs would also generate savings currently dissipated in borrowing at high interest rates. The savings could be used to begin reform of IMSS and to reverse the

deterioration in IMSS salaries and working conditions that is destroying morale and service.

### Secretaría de Salud.

SS played a major role under President De la Madrid until 1988, but the administration of President Salinas seems to be reducing the scope of its authority. Although SS saw its planning and budgetary analysis unit abolished in December 1988 by the new presidential team led by Salinas, this error was being corrected by early 1990; nevertheless the message had gone out the the socially-oriented bureaucracies that SS had lost its role of leadership, perhaps because it had been too respectful of the various constituencies in the National Health System.

In the meantime, SS was under attack by some observers who believed, ironically, that SS was using its coordinating power in a plan to impose a monolithic bureaucratic scheme on the diverse National Health System. (See Soria and Farfán, 1988, pp. 28-30.) Such critics believe that any agency with increased responsibilities will only thicken the bureaucratic barriers between health care workers and the masses.

Nevertheless, a policy-oriented SS might rationally organize and simplify the national health system, making reform easier to implement. At the same time, it should be admitted that as SS has won homogenization in pay scales and rules for promotion among the many health agencies, personnel morale has suffered. If the public health services are to prosper, they must be developed on the basis of professional cooperation, not unionized obstructionism or bureaucratic indifference. Policy planning could lead the establishment of the coordinated National Food and Water Sanitation Campaign proposed here.

A World Bank loan to SS could well be aimed at resolving the paradoxical need for SS to plan without imposing a monolithic model that

harms the professionalism of physicians. The World Bank could help SS develop a role for private medical associations as equal partners in the development of public policy. Such a loan should involve reconsideration of a health system that has an apparent oversupply of physicians and high physician unemployment. The loan could encourage the rethinking of government policy which requires one year social service for physicians and nurses at no pay on the theory that they will be in a position to make larger salaries than other university students. (Non-physicians and non-nurses do only six months service with no pay and usually without the sacrifice of going to difficult rural areas.) Perhaps physicians could be "paid" to do their social service by awarding them low-interest loans instead of requiring them to working for nothing; and then once established in the medical profession they could repay those loans into a revolving fund to help new generations of physicians do their social service. In short, ways must be found to improve physician morale and responsibility.

Rationalization of the existing social security institutes and health and housing agencies could also generate funds to upgrade backup health services throughout the country, where even idealistic physicians and interns become disillusioned with the lack of medical equipment and supplies. In addition, morale is unlikely improve until the staff reduces the amount of time it spends filling out government paperwork; ironically, the bureaucratic tendency to generate data to justify expansion of service ultimately results in cynicism and low morale among social security and health agency staffs, reducing efficiency and service.

High government officials with special knowledge about the problems of social security and health coverage in Mexico have suggested that no administration to date has been able to make the crucial breakthroughs required to improve government performance. It is easier to establish new

programs than to reform procedures, which often means an inefficient cycle of bureaucratic initiative and delay.

As for specific areas to develop activity, preventive medicine has long needed attention. One component of preventive medicine strategy would be a major educational effort perhaps using television and educational video. The SS could take on this responsibility or work jointly with the Secretariat of Public Education (SEP).

A second component of preventive medicine in Mexico would be a program to improve nutrition nation-wide, by adding appropriate vitamins and minerals to the basic food supply. The SS could work with the private sector to nutrient-fortify such items as tortillas, bread, and milk (powdered and liquid). Such a program would particularly help the poorest sectors of society. The poor can afford only 5 primary food products: beans, corn tortillas, oils, sugar, and milk, as has been pointed out by José Merino Máñon (quoted in Muñoz Ríos, 1989. p. 29.)

The nutrition program would compensate for (1) the loss by the masses of purchasing power (decline in real wages) which has made high-quality foods unobtainable; and (2) the shift among urban dwellers towards highly processed junk foods, many of which are laden with chemical additives. Decline in per capita daily consumption of protein and calories in Mexico is shown in Table 37. Between 1985 and 1988 animal protein consumption fell for all 5 sectors surveyed from low to medium income (be they in they formal or informal economy), although consumption was unevenly distributed. Over half of the population consumes less than 10 grams of animal protein per day while 21% consumes more than 42 grams. The latter exaggerated consumption of proteins causes metabolic and degenerative diseases (Garcilta Castillo, 1989, p. 5). The only positive note in this otherwise tragic situation is that total per capita caloric consumption has declined

only slightly.

Specifically, according to the Instituto Nacional del Consumidor (INCO), the following per capita changes in animal protein consumption came between 1986 and 1988:

- 26% red meat;
- 15% chicken;
- 10% eggs.

Milk consumption is also seriously affected by relatively high prices. The Mexican government milk dispensary LICONSA (which sells subsidized milk for 10 U.S. cents per liter) has estimated that only about a quarter of the nation's population under age 10 consume any milk after nursing age. Because Mexico's milk producers cover only 40% of the country's daily requirements, powdered milk is imported in massive quantities. (Ross, 1989, p. 19.) The powdered milk is mixed with real milk and with water, producing what many consumer call "a foul tasting powdered water."

Corn consumption in 1988 was down 700,000 tons compared to 1980, even though total population increased by 12 million. Since 1968 the tortilla millers of Mexico City have received the same ration of corn even though the population has grown by at least 120%, the City's 160,000 tortillerías now receive at minimum only half of the corn needed. (Velásquez, 1989, p. 22.) Although corn is not the ideal diet for Mexico's population as been postulated in post 1910 myth (Wilkie, 1978, pp. 378-381), it is easier to digest and causes less food allergy than wheat, which tends to add excess body weight.

Meanwhile, few Mexican government agencies have intervened to alleviate these nutritional shortages. (Garcilita Castillo, 1988). The National Food Program has simply compiled a list of organizations tied into

the food production chain, without analyzing the crisis in nutrition. Although one of Salinas' first acts as president was to form the National Solidarity Program (PRONASOL) which includes all of the nation's food delivery programs, PRONASOL must coordinate bureaucratic interests of its representatives from 11 Cabinet ministries and 4 national institutes, meshing the needs of state governors and municipal leaders. Meanwhile, some programs continue to offer highly-valued services, such as DIF, which provides free breakfasts with Lacto-DIF--powdered milk in effervescent form with vitamins and minerals. (Ross, 1989, p. 21.)

A 1989 survey of Mexico City food stores revealed a very irregular pattern in the addition of vitamins and minerals to bottled and packaged foods which could be fortified. For example, 2 brands of fresh milk ("Alpura" and "Boreal") and expensive powdered milk from Europe added no vitamins A and D, although the reconstituted brand ("Nutrileche" non-fat and "Mileche" whole milk) added some 600 units of both A and D. Of the processed grains used to make "atole" (a thick, warm gruel), the corn-based "Maizena" did not add vitamins while the rice-based "Tres Estrellas" added B1, B2, niacin, and iron. For the corn meal to make tortillas, none of 3 brands on the shelves ("Maseca Harina de Maíz," "Nixtamalizado," "Mexarina") carried any fortification.

As part of World Bank financing, SS could develop and implement a national nutrition policy for Mexico. Some Mexican nutritional research has been conducted, but it needs expansion and coordination. For example, attempts to enhance the nutrition of tortillas with fish and soy protein have failed the taste test; other means to fortify tortillas should be found. More research is also required to provide iron to women of child-bearing age (especially in light of the drastic decline in meat consumption); but iron is difficult to add to foods because it does not



distribute evenly and can cause food poisoning. Addition of folic acid to the diet would be healthful for all persons, and it is especially important for woman during the first 6 months of pregnancy in order to prevent spinal column birth defects such spina bifida. Because folic acid may need vitamins A, C, D, and E to be effective, researchers recommend that they all be given, preferably in a multiple vitamin capsule. (Los Angeles Times, November 24, 1989, p. A23.) Mexico should consider free distribution of multiple vitamins and minerals, beginning at least with target populations.

A national policy on nutrition must also take into account counterclaims that the Mexican diet is sound. Theoretically the right mix of legumes and grains will give complete amino acids. Furthermore, tortilla dough is made with a chalk fermentation process that naturally adds calcium. Iodine is added (by law) to salt; and in some regions (for example, Yucatán) vitamin A is added to sugar. A second consideration is that adding vitamins to milk will not improve the nutrition of persons inheriting lactose intolerance; fore example Mexican Indians lack the custom of drinking milk, and the ability to produce the lactose-dissolving enzyme was either lost or never acquired.

The problem of sugar overuse in Mexico needs to be addressed in any national nutrition policy. As the least expensive item in the Mexican diet (Gutiérrez Garza, 1988, p. 158), sugar is known as the "valium of the poor." It is widely used to calm children and dull hunger, and to make juices and bottled beverages attractive to the masses, who in any case are taught correctly that the country's water supplies are rarely potable. Colas, along with chili are seem by some observers as providing necessary digestive stimulants in a country where much of the cooking oils are lard based, and the refried beans are difficult to digest.

The colas are said to be causing damage to teeth, more so in Mexico

than elsewhere because the two leading cola brands apparently add extra sugar. Ironically, it is the Association of Coca-Cola Bottling Plants in Mexico which since 1977 sponsors the National Prize for Food Science and Technology awarded to encourage increased food productivity, new food technology,, and general food self-sufficiency. (Guadarrama H., 1989, p. 51.)

Needless to say, cola advertising helps make Mexico the world's leading per capita consumer of bottled beverages; for example advertising reaches even into towns where official traffic signs read:

STOP!

COCA COLA!

or Pepsi Cola, if it the bidding war to win approval from local officials for the right to install and maintain street signs.

The new tasks for SS to undertake are several, then, with the need for a campaign to sanitize water and food being as important as the need to develop and implement a national nutrition policy. SS should be encouraged by the World Bank and other international agencies to take initiatives largely ignored in Mexico to date. Only SS has the unused capacity to undertake such programs. The country needs to develop overall health planning to elimination duplication and waste while permitting decentralized programs to attack problems innovatively.

#### INFONAVIT.

INFONAVIT faces at least 2 difficult and interrelated issues that could be addressed by a World Bank loan. First, because INFONAVIT was created without an endowment, it is basically limited by the slow accumulation of income from taxes on worker salaries for construction of housing units.

Second, there is an urgent need for housing in the northern states to

support the rapid expansion of the maquila (in-bond) industry. Some 400,000 workers are employed there (approximately one-quarter of Mexico's industrial labor force), and better housing is required to reduce incentive for them to move to the United States. The maquila industry is suffering from a shortage of skilled labor, not only because skilled workers are attracted to higher wages in the United States, but also because they are being driven out by a lack of adequate housing.

Plant owners complain that they are putting money into a housing system with little result. The north did receive more in 1989 from INFONAVIT than it contributed, but that may neither be historically true nor was it enough. Plant managers argue that if they could retain their contribution to INFONAVIT and use it as the basis for developing their own private building fund, they could begin to resolve housing shortages.

Resentment is also building in Mexico City, where employers contribute much more into INFONAVIT than their workers get out of it. Owners and workers no longer accept the government's traditional rationale that INFONAVIT collections in the wealthy capital city are needed to subsidize the poor states.

To help resolve these problems, a World Bank loan could provide the critical cash to build rapidly, with the workers subsequently paying off their home loans and allowing INFONAVIT to repay the Bank. Or INFONAVIT could be privatized, with World Bank funds offering the incentive. In effect a World Bank loan here would be aimed at rewarding productive workers and plant owners and help spur Mexico's economic recovery.

#### **B. Future Studies Needed**

Of the topics developed here, there needs to be: (i) further verification of data and testing of concepts (such as "housing units"); (ii) budgetary analysis by function; (iii) cost-benefit studies;

(iv) development of plans to employ personnel effectively (such as unemployed and underemployed physicians); and (v) examination of alternatives to physician social service which could have longer-term benefits for society than just 1 year of free practice.

Although there is important research being developed in Mexico on the medical problems of public health, there is little policy research. Perhaps because public funding supports the Centro de Investigaciones en Salud Pública, it is not emphasizing the critical analysis of data necessary to reformulate national policy.

If the decentralized transfer of COPLAMAR to 14 of Mexico's 32 states is to go forward, its funding mechanisms should be made transparent. Most states do not have the funds to adequately support COPLAMAR, and the problem at the state and local level is typically to see to what extent services have been curtailed. If the states hope to support expanded services for COPLAMAR, the tax base must be reassessed in the light of changes under President De la Madrid which allowed greater state and local taxation. (For the first time municipalities are allowed to levy land taxes.)

One problem with deconcentration of social security and social care to the state and local levels is the scarcity of competent government staff, especially outside the federal government. There is a need to educate and train a new generation of researchers and civil servants who will not only be able to implement programs at the local level, but also critically see how to revise and remedy mid-course defects in new programs.

Above all, the federal government must support independent, critical research to inform the debate over social security health policy. To its credit, the current administration is encouraging critical research, but

many government agencies and institutes remain timid in the shadow of previous administrations which discouraged independent thinking.

Studies also need to be undertaken on the problem of professionalization of the medical service in Mexico, and concerning how the private and public sectors can cooperate to resolve issues of preventive, as well as curative, care. In addition, the field of dentistry in the scheme of Mexican health care and the shortage of dentists needs greater attention. Finally, research is required to resolve the dilemma of numerous decentralized agencies providing expensive and overlapping services while retaining powerful autonomy, as do INDS, ISSFAM, SS. Increased coordination and reduced duplication are necessary, although it is also important to promote limited competition and avoid the creation of a monolithic, inefficient bureaucracy.

Some observers suggest the integration of IMSS and ISSSTE; this is a policy question worth examining. Specifically, ISSSTE's budgeting situation needs outside examination, as IMSS officials charge ISSSTE with overestimating its return on investments at 59%, when 7% is probably more realistic.

The Mexican social security and social care systems are not far from collapse, unable to maintain even the past's levels of benefits. Research is urgently required to find out the best means of resolving this crisis. The supply of Mexican researchers prepared to study the kinds of policy problems developed here is very low with the financial base for investigation undermined by the economic crisis. Given the collapse in university salaries, few researchers are now available, hence the outlook is bleak for independent analysis within Mexico. Without ongoing investigation and critical analysis, Mexico will continue to lack the policy research that it needs for effective reform of national problems.

#### IV. Conclusion

Identification of all of the problems facing the social security and social care systems, and their solutions, is a large ongoing task.

Suggested here are some of the issues needing further study and some ideas for World Bank financing which could open bottlenecks impeding Mexico's social and economic development.

Among the many predicaments and decisions that Mexico faces, one of the most important is the issue of equity and poverty, which concerns international agencies and the Mexicana government. If the non-salaried poor who do not pay IMSS and INFONAVIT taxes are rewarded with subsidized housing and health at the expense of the salaried workers and their employers who pay taxes on their behalf, discontent can only lead to the growth of the informal economy, further cutting into tax collections. Careful consideration needs to be given to redressing the balance and providing services to salaried workers.

Certainly Mexico should be helped and encouraged to reward all families who limit their number of children. In 1990 INFONAFIT made a change in policy to favor smaller families, and FONHAPO may head in that same direction.

In one view of the near future, the extended family itself may be weakening. If that happens, IMSS will have to increase its provisions for extending health coverage to unemployed workers. Mexico does not have unemployment financial insurance (except for workers age 60 or over who are released from their job), but it has arranged to continue health coverage for 18 months after job severence. Without social benefits families may desire more family members to help feed the group and serve as personal insurance to help pay for the aging and the ill. In this latter view, having many children is seen as a family investment, but that investment at

the family level will generate greater demand for education and social care expenditure level at the societal level. While an expanding population of youth can be seen as maintaining the basis for continuing the IMSS "pay as it goes" policy, IMSS estimates that Mexico already has a large enough share of youth to cover IMSS costs well into the twenty-first century.

Over the long term, Mexico must face that fact that for the first time a large percentage of the population is living to the retirement age of 65. The social security agencies do not have the cash reserves to cover retirement benefits even at today's inadequate levels. The agencies are caught in a "catch-22" situation yet to be resolved. They claim that if they had not invested their "reserves" in their buildings that the reserves would have been wiped out by inflation or seized by the government to help pay for deficit spending (as SHCP has done with ISSSTE funds). All realize that most of the buildings cannot be sold because they provide the services required by social security beneficiaries.

Mexico has achieved important, if limited gains, for at least half of its population in providing social security, and covers up to 80% of its population with some form of health care. Yet these gains are compromised by several factors which need consideration by future governments: inflation is eroding benefits; government social security and social care systems are too poor financially and too irrationally organized to efficiently resolve their internal contradictions; and a bureaucratic mentality stifles the ability of individuals to solve problems. A new ethic of innovation is needed, one that rewards the cutting of "red-tape" and promotes initiative, perhaps with the cooperation of the private sector. To change the bureaucratic mindset will require a reconceptualization that sees government agencies as offering real services to the citizenry, not "on-the-job retirement" to workers who are all paid the same meager salary.

In summary, there is no easy way to expand and improve the services and administration of social security and health coverage in Mexico. Social security specialty medical care is as good as anywhere in the world, but the general medical care is mediocre, at times matching the world's poorest. Although for years the middle class avoided social security health care except for emergency services and for specialty medicine, the economic crisis has meant that much of the middle class no longer has the funds to spend for private care and now must turn to the social security and health systems which are already underfunded and overloaded. In this situation, it becomes extremely difficult to expand the systems to populations and regions which have never been covered, nevermind improve systems where morale and incentives are ridiculously low. Reform of social security and social care policies will be possible only as part of a larger scale resolution of economic issues. The World Bank has an important role to play as a catalyst in helping Mexico to make the hard decisions required to address its societal predicaments, some of which have been outlined in this study.



## EPILOGUE 1991

Events in Mexico have transpired rapidly under the Salinas administration, and change in the social security sector is no exception.

In January 1991 the Law of Social Security was revised to overcome a number of historical problems. First, to end cash flow problems, the contribution for workers covered by IMSS is raised by 1%, payable in the same shares outlined in Table 18, above, for employer, employee, and the government. Second, IMSS reserves no longer include investments in installations and land, but are restricted to cash invested in financial instruments. Third, the law seeks to limit the role and power of IMSS labor unions, requiring that workers increase their productivity or be released. Fourth, the salary of union workers is to be adjusted so that workers with seniority do not earn more than physicians and highly trained medical personnel. Fifth, IMSS is given the power to shift workers where they are needed throughout the republic, restricting union power to make geographical assignments. Sixth, the law now enables IMSS to make necessary administrative reforms for the reorganization to offer medical services on a more timely and efficient basis; and provisions enable IMSS to purchase and store medical supplies appropriately to reduce costs and maintain inventories.

To undertake these changes, the Salinas administration has set in motion the following studies on possible reform of IMSS:

- privatization of pension funds with personal accounts;
- privatization of certain types of medical care by contracting private medical personnel and facilities (as is already done on a limited basis where IMSS services are not fully available);
- sale of hospital laundries, which would permit unused capacity to service the hotel industry and cut costs for the tourism sector as

- well as for the hospitals which are overstaffed with unproductive workers who have high benefit costs;
- privatization of vacation centers and other nonessential installations;
- complete separation of theaters and cultural centers (which already operate at arms-length from IMSS)
- provide computerized membership cards with a magnetic band of basic patient information to speed service to beneficiaries.

All of these reforms are important and feasible, except perhaps the first.

Of the possible IMSS reforms, privatization of pensions is problematic because, as indicated in the body of this study, the only way that medical operations have been kept afloat is through shift of funds from the retirement pool into the health pool. At no time have potential retirees had any amounts reserved in their name, and in any case retirement funds are ridiculously inadequate because they have fallen far behind inflation. One idea circulating is to make a division between existing members who continue under the present system and new members who would have private accounts. Or all new retirement funds beginning from a certain date would be assigned to private individual accounts. Such solutions for retirement funding would require an infusion of new funds to cover the loss currently provided from the retirement funds.

To develop a reformed IMSS, Salinas named a new director. Emilio Gamboa Patrón took office on January 23, 1991, with the assignment of revitalizing the agency and eliminating the rising discontent among beneficiaries as well as among medical workers. His first task will be to revalue the actuarial reserves, which must now eliminate the inflated reserves formerly accrued in installations. In the meantime, information about the financial health of IMSS has not been released since the internal

reporting cited in Table 16, above.

The Salinas administration clearly sees IMSS as standing on the threshold of major change. For example, the functions of IMSS-COPLAMAR have been already subsumed under the National Solidarity Program (PRONASOL). Such new changes and the ones contemplated beg for further research, which is urgently needed if we are to understand the role of the social security and uninsured social care systems.

