THE MEXICAN BUDGET
REAL POLICIES AND FUTURE NEEDS

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UCLA Program on Mexico

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Introduction

This study examines and seeks to resolve Mexico's predicament of interpreting presidential expenditure policy in a situation where since the late 1970s budgetary officials have developed inconsistent and misleading concepts for presenting data to the public as well as to planners in the government agencies. In proposing future policy to resolve Mexico's unmet budgetary needs, this study seeks to overcome confusion about how funds are really spent rather than apparently spent by clarifying and revising in important ways definitions and concepts to develop a consistent method for interpreting expenditure before and since the 1970s.

The major problems of mexico's budgetary analysis are at least five and date from the fact that the Secretariat of Programming and Budget (SPP) was organized implicitly in 1977 to justify the expansion of the state into all spheres of national activity as well as to control explicitly expenditure.

First, although the Mexican Treasury Department (SHCP) formerly sought to measure the extent to which Central agencies make **policy decisions** over expenditure, subsequently SPP has sought to assess the extent to which Public Sector agencies **spend**

funds for program impact. Where the "policy" approach involves Central decisions about how funds will be spent (including the determination of amounts of funding to be transferred to Decentral agencies), the "amount spent" approach ignores the locus of power to assess the "impact" of each agency. SPP has measured impact by deducting transfers from Central government agencies and adding those transfers to the Decentral agencies that spend them.

Second, SPP has omitted data on funds expended to pay the domestic and foreign debt and shifted repeatedly its criteria for functional analysis of expenditure categories. Thus, SPP has broken the continuity of definitions necessary for meaningful analysis from year to year and has inflated the share of the social expenditure function, downplaying the share devoted to the economic function.

Third, SPP has shifted the traditional Mexican focus from measuring the total public sector expenditure and its two separate components of Central agencies and Decentral (Parastate) agencies to analyze only the total outlay. Because SPP now analyzes the sum of Central and Decentral outlay rather than its components, data for Central expenditure prior to and since 1970 are no longer comparable.

Fourth, the problematic result of SPP's shift to analyze only the total Public Sector expenditure and not its parts has been to give the erroneous impression that the president controls the Decentral subsector. Thus, the role of the presidency in Mexico has been distorted concerning about that for which it is really responsible and that which is capable of really doing. Needless to say, presidents themselves have been confused by SPP budgetary data into thinking they have had more power that they do.

Fifth, ironically, SPP's present budgetary focus on impact and its insistence on consolidated analysis is incongruent with current programs of President Carlos Salinas de Gortari (CSG) to streamline the role of the state. By obfuscating policy decisions, SPP's budgetary system hinders CSG's program of state "modernization," which involves the privatization and/or closing of inefficient and money losing Decentral operations harmful to national development.

From inception of SPP budgeting in the late 1970s, consolidation of the Central and Decentral spheres of government into one Public Sector account has had mixed results. On the one hand, consolidation seemed to behoove the presidency because the Decentral subsector had come to rival the Central subsector in size and influence. Yet the decision to consolidate expenditure

was problematic because it sanctioned implicitly the growth of the Parastate activity, which mainly involves nationalized agencies and companies that autonomously expend more funds than they collect. Because this Parastate subsector has required subsidy from the Central subsector and has drained discretionary funds away from the presidency of Mexico, since 1982 the Central government has been selling, merging, or closing Parastate companies and agencies.

SPP's shift from analyzing Central policy decisions about expenditure to measuring impact of Public Sector outlay has had serious consequences. The shift not only has broken the time series of data needed for long-term analysis of federal budgetary power but it neither allows policymakers and analysts to measure the full size and impact of the Public Sector in relation to GDP as had been expected, nor does it reveal the pattern in policy decisions for funds under direct presidential control.

The purpose of this study is to recommend the framework necessary for undertaking policy analysis for refocusing budgetary analysis in the Mexican case, especially with regard to social expenditure.

My tasks here are several. They are to

1. Review the background of budgetary organization in Mexico to show the problems which have emerged.

2. Present SPP's view of "programmable" expenditure by the Public Sector and to show how it is distorted.
3. Offer a consistent framework for refocusing issues.
4. Examine Mexico's budgetary data since 1980 in terms consistent with the past.
5. Speculate about the future course of Mexico's expenditure.

1. Background

Until the mid-1970s Mexican budgets (both as planned and actually disbursed) were presented with a historical series that was relatively consistent to help us understand the role of Central government as defined in terms of centralized activity. The Central government includes the agencies over which the president has direct budgetary role: The secretariats (including Treasury which makes payment on the Central government debt), the legislature, and the judiciary. The central government administers the police, military, public schools, public health, and public works. In terms of outlay, Central expenditures become more powerful year by year after 1920 and especially after 1940. As part of the public sector, the Mexican Central government saw continued budgetary growth until the financial crisis beginning in 1982.

Within the Mexican Public Sector and parallel to the Central government subsector, a Mexican Decentralized subsector, or Parastate "government," had grown slowly but steadily, especially after the presidential expropriation of the foreign-owned railroads in 1937 and oil industry in 1938. Such government-owned industries operated outside of Central government budgetary control until 1965, when there was a real move to try to audit the companies and agencies of the Parastate subsector and bring it under planning scrutiny. Although this Decentralized government subsector was incorporated into Public Sector budgeting when financially it came in the 1960s to rival in size the outlay of the Central subsector, many Decentralized companies and agencies have remained outside of the budget and its audit controls. The projection and audit figures available for "off-budget" units mainly involve the subsidies given to some by the Central government.

The public and private relationship in the Mexico since the late 1970s is shown in Chart 1. By 1976, as we will see, the definition of the Public Sector became complicated, especially because of the de facto emergence of the "extended Public Sector," which includes off-budget Decentralized Governmental units and state and local government.

Off-budget Parastate companies and agencies include inter alia the National Telephone Company (TELMEX), the National Bank of Public Works and Services (BANOBRAS), National Rural Credit Bank (BANRURAL), National Autonomous University of Mexico (UNAM), Autonomous University of Mexico City (UAM), the Department of the Federal District (DDF), and the Mexico City Metro. (For list of abbreviations used in this study, see Appendix A.) For example, TELMEX merely reports to the Central government its financial activities, all of which are beyond budgetary control. The Central government can only worry about TELMEX's inefficiency, corruption, and lack of working capital, factors that presumably will be resolved with the company's privatization in the early 1990s. Three off-budget agencies alone (TELMEX, DDF, and Metro) accounted for an amount equal to 6.0 percent of the on-budget Public Sector in 1979 and 4.3 percent in 1989, as is shown in Table 1.

The Decentralized agencies and companies have remained without real accountability to central authorities because they collect and spend their own funds. Although in theory this Parastate subsector was supposed to be accountable as its units generate profits and pay taxes to the Central government subsector in order to support such as activities as national social development, the spending by government-owned industry has

normally far exceeded collections. The result has been that the companies and agencies have required subsidies from the Central government (thus draining away the president's discretionary funds and limiting his ability to undertake new initiatives). The result also has been that implicitly these Decentralized units have challenged the political power of the Central government by developing their own constituencies. Especially when an agency such as PEMEX (the Mexican State Oil Corporation) in some years since the late 1970s has reached the point where it pays taxes to offset subsidies, that agency tends to remain a power unto itself. PEMEX, for example, not only has major clients whose success is important for the nation but it has a self-contained technical bureaucracy upon whose loyalty the flow of Mexican energy depends.

With regard to Central government budgeting, until the mid-1970s Mexico reported its budgets according to

1. **administrative category**, that is by secretariat and by the categories of public debt as well as general or unclassified items (erogaciones adicionales). The general category increasingly came to prevent informed analysis because it lumped expenditures together rather than showing their allocations to the particular secretariats that actually expend the money);

2. **major function**, according to 9 categories (education, health, promotion of industry, public debt, etc.), grouping secretariats by function and disaggregating the general category;
3. **economic purpose**, divided between current (including personal services) and capital outlay.

The Mexican Central government has not published the results of expenditure but only the plans. Such an approach has allowed presidents much discretion. In underestimating Central outgo by up to 160 percent, presidents disbursed the absolute amount promised to each secretariat and used the percentage surplus for their own initiatives. On the negative side of this process, the citizens debated, for example, whether or not education should receive 25 percent of the budget when in reality it never got more than half that. On the positive side, the military has received the absolute amount budgeted but seen its percentage share of actual spending decline from over 6 to about 1 percent. (For the book that exposed the difference between Mexico's planned and actual outlay, see Wilkie, 1970, which provides the basis for carrying forward budgetary data to 1976 in Wilkie, 1978).

SHCP analysis of categories by function did not emerge strongly until the 1950s, closely matching my own later

independent analysis of Mexican Central government budgets. My historical approach involved disaggregating the unclassified or general category back through time to 1900, thus covering the four decades for which functional analysis was not done by the government--this general category accounted for up to 16.2 percent of actual expenditure by the Central government in 1954. From the mid-1960s to 1979 we were able to reliably use Mexico's functional summary to understand the historical trajectory of Central government expenditure.

2. SPP and the Establishment of Programmable Budgeting

When Mexico established SPP in 1977 the goal was to develop program budgeting that could depict the president to be in control of the entire Public Sector, even though in reality the Parastate subsector was hardly responsive to the president. Further, SPP's development and program budgeting was designed ostensibly to "clarify" expenditures by distinguishing between funds that the president directly controls (programmable funds) and those that he does not (nonprogrammable) such as payment on the debt.

Budget reforms were seen by the Mexican Central government to be necessary because of the dramatic growth of Mexico's expenditure and debt obligations from 1976 to 1982. By eliminating from public-sector analysis the increasingly high

payments on the debt on the grounds that those payments are fixed (that is, not programmable) and because the debt "only involves a revolving fund", SPP could hide patterns in expenditure, leaving the president a free hand. SPP eliminated from analysis the Central government role in transfer payments to all public-sector agencies and companies not "off-budget" doing so on the grounds that those budgets would otherwise be double-counted because such transfers show up in the accounts of recipient government agencies and companies. Too, it eliminated revenue sharing with the states with the rational that the funds merely are collected by Central authorities.

The implicit result of SPP budgetary "reform" was not only to hide the Central government's decisions on the share of funds dedicated to pay the debt but also to obscure its role in determining where transfers will go. Further, these moves broke the functional data series, divorcing past from present. Having made major deductions from budgetary analysis for the Central government, then, SPP has focused public budgetary discussion on "programmable" funds of the Public Sector, ignoring the presumably "nonprogrammable." Ironically, then, policymakers lost the analysis of data needed to understand the Central government's role in making decisions about the Decentral subsector beyond its direct control.

Further, when SPP removed payments on the debt from published analysis, the public lost the ability to discern the tremendous increase in funds "allocated" to pay interest and amortization, "allocation" serving as SPP's euphemism to avoid the fact that debt payments are indeed programmed. SPP has argued that budgetary practice in developed countries such as the United States omits payments on the debt because the debt is only a revolving fund. However that may be, Mexico needs to know how much the debt is diverting from other programs; and in any case, SPP omits more that amortization of the debt (as is the standard, U.S. practice) but also omits interest, commissions, and costs.

With regard to "programmable" funds, their shares of the budget are astoundingly low for functional or sectoral analysis, as is shown in Table 2. Where in 1980 the actual "programmable" Central government expenditure was about 54 percent of all Central government expenditure, in 1989 that share fell to less than 18 percent. The "programmable" shares for the entire Public Sector were 67.8 percent in 1980 and 33.7 percent in 1989. These figures mean that the great majority of funds are hidden from functional analysis, hidden not only to the public but to Central government officials.

Complicating interpretation is the fact that SPP has ceased calculating functional analysis for the Central government.

Since the late 1970s it lumps the programmable Central and Decentralized government expenditure together to calculate outlay by function only for what is essentially a mythical public sector.

Let us examine in Table 3 SPP's view of actual Public Sector outlay by program. Although social expenditure and rural development outlay have been relatively stable since 1970 (holding in the upper 20 percents and below 10 percent, respectively), the categories for industry and administration have varied tremendously, the latter falling from about 18 percent to below 10. The industrial category has increased greatly through time (from .4 percent to usually over 10), perhaps in part because the parameters used to define the Decentral subsector have changed almost yearly.

Given the lack of consistency in SPP's programmable view because Decentral companies and agencies, many of long-standing operation which were only brought into functional analysis as shown in Chart 2, it is not possible to calculate a reasonable assessment of Decentral outlay and its role in the "Public Sector", hence the need here is to develop a consistent view of Central policy decisions about where to expend funds. To develop this consistent view, we need to rethink the components of Public Sector expenditure.

3. Developing a Consistent Framework for Refocusing Issues

To help overcome the above problems in SPP budgetary presentation for Mexico, I have here developed the policy approach which is based upon two premises. First, the Central government is the focus for analysis because it determines emphasis for expenditure by function and it is the only subsector of government directly controlled by the President of Mexico. Second, we need to distinguish between the relatively cohesive policy of the Central government subsector and the uncohesive role of the Decentral subsector, over which the president has mainly influence rather than clear budgetary control.

With regard to presidential influence over the Parastate units, the influence is limited. Although the president has the power to name officials, usually they are named to work within the standard operating procedures established for their unit, and those officials must accept the history of economic constraints under which their unit emerged. Beyond such authority, the president also has the power to establish general policy within which the Decentral units function (e.g., the setting of exchange rate policy), but those broad powers effect the economy as a whole and play a role beyond the scope of this study.

Whereas agencies of the Mexican Central government subsector do not generate their own income but are dependent on tax revenue

and income generated and disbursed to them by the Treasury Department, most of the agencies and companies of the Decentral subsector do generate and collect their own income as well as make their own expenditures. Further, when the Decentral units spend beyond their means, the central government must make up the difference--public units can seldom be permitted to go bankrupt.

(Aeroméxico was allowed to go bankrupt in 1988 as a way of privatizing it, but the long-term gain was high in medium-term damage to the national economy; many regions lost air communication for over a year, others permanently lost direct routes or saw suspension of flights for over two years--e.g. Monterrey to Los Angeles--, and all lost timely service.)

Decentral units do not in any case operate with much regard to overall plans developed by SPP. Normally SPP approves of Decentral budgets as submitted, only trying to reduce the government subsidy--notably except for PEMEX. Until the mid-1960s the Decentral subsector could borrow funds without the approval of Treasury. During the 1970s, the Central government sought to coordinate borrowing, but only since 1982 has SPP gained the authority and knowledge to set some limits and regulate some procedures. (For a review of the federal legislation attempting to bring the Decentral sector under Central government supervision and audit, see Rosario Marinez,

"El Origén de la Ley de Entidades Paraestatales," El Cotidiano 3:14, 1986, p. 16ff.)

The components needed to understand the trajectory of Central expenditure policy are given in Table 4, Part 1, where I show the categories used to arrive at gross Central outlay (Col. E). In addition to adding the debt back into analysis, I include also the category for revenue sharing and fiscal incentives. In my view, this category involves more than a "pass through" of funds collected by the Central government for distribution to the states. The so-called pass-through process not only involves Central policy about the formula of distribution according to which states will benefit but also takes collection out of the hands of the states. On the one hand, the Central government claims that it can do the job of collection more efficiently and with less corruption; on the other hand, the more the states are deprived of power to collect revenues, the more they remain dependent upon the Central power at the very time that deconcentration of power is the stated Central goal. For the total gross Central outlay in Table 4, Part 1, Col. A., transfers to decentral off-budget agencies are included as are transfers to on-budget agencies (in Col. D) because they involve policy choices about where to spend funds.

With the calculation available of gross Central outlay available (Table 4, Part 1, Col. E) to deduct from gross public expenditure (Col. F), the result yields a residual that equals Decentral outlay viewed in terms of policy choices rather than impact. The importance of central outlay is shown in two ways in Table 4. First, as a share in gross public expenditure (Col. H), Decentral reached over 50 percent in 1971 and 1976. Second, the Decentral ratio to Central outlay was 105 and 101 percent in those years (Col. I). That ratio fell to 50 percent by 1982 and to about 30 percent by 1989.

Revisions downward in the size of Decentral budgetary outlay are shown in Table 4, Part 2, which reveals several factors. First my residual view suggests that the Decentral "power" is considerably less than SPP would have us believe. Second, the role of debt payments in Decentral outlay is higher than that plotted by SPP, having reached over 38 percent in 1983. It now stands at one-quarter of Decentral outlay.

The costs of Parastate units to the Central government have been very high, making the Decentral activities a luxury to support. As seen in Table 5, I calculate the "costs" to the Central government by adding its transfers or direct costs in Col. B. (that is its total transfers to the Decentral subsector, including heavy subsidies to cover working losses as well as

shortfalls in debt payments) to its indirect costs in Col. C., that is to the Decentral financial deficit for each year. The Central government is ultimately responsible to make sure that deficits are covered--mainly by borrowing for the Parastate accounts as well as for itself. The ratio of these direct and indirect costs rose from about 28 percent in 1980 to 34 percent in 1981, as shown in Col. E. The high ratio of 1981 helped precipitate the economic crisis in 1982. Small wonder that the Central government decided to begin privatization of the burdensome Parastate units! Central policy to divest itself of Decentral costs has been successful.

By the mid-1980s cutbacks in Decentral expenditures and a decline in the PEMEX deficit reduced the Central total costs of supporting Parastate units to a ratio of about 10 percent, but they did not fall below 5 percent until 1987 even though after 1983 PEMEX produced an increasing surplus rather than deficit. (See Table 5, Col. E.) Yet there is no doubt that the Parastate units still constitute a drain on presidential budgets as well as the president's mental peace. If those costs were cut, savings could be reprogrammed to meet pressing social needs that are presently sacrificed to the losses and inefficiency of Decentral government. (Some of the costs are off-budget and not included here.) That the Central costs to cover Parastate losses fell to

a ratio of about 3 percent in 1988 and 1989 even as the PEMEX surplus turned to a deficit in 1989 (Table 5, Col. F) suggests the extent to which the level of Decentral expenditure declined by 1989.

The Decentral role in policy is shown in Table 6. Although the Decentral share in Public expenditure fell from 46 to 23 percent (Col. G), Public Sector expenditure grew in share of GDP during the 1980s from 38 to over 54 percent (Col. D) because the Central share in GDP doubled--from 21 to 42 percent (Col. F).

That the budgetary power of the President of Mexico has grown importantly is shown in real terms per capita given in Table 7. This power over gross actual funds available per person, which in 1960 stood at 272 pesos standardized in terms of 1950, rose to over 500 by 1974 and over 1,000 by 1981. (See Col. E.) From a post-1960 high of 1,445 in 1982, per capita funds declined by 25 percent during the next two years, after which they rose 40 percent to stabilize in the 1,500-peso level from 1987 to 1989.

During these gains of the 1980s, Mexico's presidents no longer used projected expenditures to make the propaganda favored by earlier presidents. Indeed, projected outlay has been presented in a way that seems deliberately confusing. Ironically, then, SPP's presentations have tended to turn

budgetary plans into a form that is at once so detailed that overall meaning is lost and so vague in summary that it is no longer possible for analysts even to contrast explicitly projected and actual plans.

Reconstruction of Mexican actual expenditures through the policy analysis approach in this study allows us to see in Table 8 the rising importance of debt payments in Public Sector and Central subsector outlay. The Central Share devoted to the debt rose from 21 percent in 1980 to over 71 percent by 1988 and 1989 (Row F.) Those Central payments rose from 4.4 percent of GDP to almost 30 percent during the same span. (The share of Public Sector outlay devoted to the debt rose, in the policy-analysis view of Table 8, from 26 to 61 percent; the share in relation to GDP rose from about 10 percent to about one-third of outlay.)

The SPP approach also hides the importance of the social sector, as is shown in Table 9. Data on gross actual expenditure for the Secretariats of Education, Health, and Labor as well as the category for social security expenditures are shown with transfers deducted (TD--the SPP method) and with transfers (WT--my system). In the SPP view, for the 1980s the social sector had an importance of less than 2 percent in GDP, but in my view it had a policy role nearer 3.5 percent.

SPP's view of programmable data for selected subtotals in relation to GDP is shown in Appendix F. These data for the 1980s show the social sector as holding even at about 5-7 percent of GDP even as the share in Public Sector expenditure fell from 17 percent to 10 percent. IMSS saw its share in GDP hold at about 2 percent, with its share in Public Sector outlay falling from near 6 to near half that percentage. While it is important to know the impact of expenditure in relation to GDP, we must also understand policy options.

4. Defining Mexico's Budgets in Terms of Policy Function Through Time

The problem of understanding budgetary policy in Mexico for the period since 1970 is complicated, as suggested above. First, the statist-oriented bureaucratic reorganization under Presidents Echeverría and López Portillo meant confusion in data for Central expenditure, actual expenditure per capita for which increased 117 percent between 1969 and 1979. (See Table 7). Given confusion in the Central government, it became difficult if not impossible for me to disaggregate the General category of expenditure for the 1970s, which rose from 23 percent through 1979. (See Appendix G.)

Second, during the 1980s SPP revised three times the traditional SHCP method of analyzing the functions of expenditure, as is seen in Chart 3. Unfortunately these

revisions disrupted SHCP's post-1954 scheme, the view found to be reliable as tested against my independent analysis. (SHCP's valuable scheme lasted over one-quarter of this century, and beginning in the 1960s SHCP also expanded the scheme for functional analysis to examine separate policy made by the Decentral subsector and Public Sector as well as the Central subsector.)

The three SPP revisions (here denominated as SPP-A, SPP-B, and SPP-C) have serious conceptual problems. Not only have they shifted to the limited concept of "programmable" impact of outlay and have eliminated analysis of Central budgetary functions to focus only on the role of the Public Sector, but the revisions have shifted budgetary outlay for some items back and forth between the broad categories of Economic and Social expenditure. For example, although the scheme SPP-A classified Regional Development as involving Economic policy decisions from 1981 through 1988, SPP-C reclassified Regional Development as Social in nature; yet SEP analysis rejected that reclassification. Urban Development and Ecology was classified as involving Social expenditure in the scheme SPP-A and SPP-C, but as Economic in SPP-B. Let us return to this issue below.

In spite of these issues and problems, we can carry forward to 1989 my summary view of functional long-term coverage (1900-

1969) for analyzing Central policy according to Economic, Social, and Administrative categories. This is done by (a) using the SHCP scheme for the years 1970-1976 as continued by SPP from 1977 through 1979; and then (b) using my analysis of Central expenditure by secretariats and funds in order to develop functional categories since 1980.

With regard to linking my scheme of functional analysis to that of SHCP, it is important to note that for the two views there are only minor differences, as shown in Table 10. These differences were less than 2 percent for Economic and Administrative, and only .3 percent for Social outlay. (I have yet to be able to disaggregate the General category of the 1970s in order to clarify the role of each secretariat and fund.)

With regard to developing my full scheme for the 1980s, SPP has made it possible once again to develop my analysis (still consistent with the SHCP method) because in 1980 and 1981 SPP decided to itself disaggregate the General category. That category fell from over 25 percent in 1979 to about 6 in 1980 and 1981, and subsequently it fell to less than 1 or 2 percent of gross actual Central outlay. For the 1980s, I have determined that it is feasible to classify this declining General amount as Administrative outlay. (Not only did these percentages fall, but also Revenue Sharing and Fiscal Incentives have also been clearly

demarked, as is also shown in Appendix G.)

To return to the issue of how to classify consistently funds shifted functionally between Economic and Social in SPP-A, SPP-B, and SPP-C, let us note that I classify Urban Development and Ecology (1983--) as Economic because historically it has involved Public Works, becoming known as Human Settlements and Public Works (1977-1982). Rural Development is classified here as Economic, as it was by SPP from 1984 through 1988 when it was discontinued as a category.

Perhaps the most difficult to categorize functionally is Regional Development, here classified as involving Economic outlay because SPP classified it that way from 1981 through 1988. Although in 1989 SPP reclassified Regional Development as involving Social outlay, that assignment is erroneous. According to Oaxaca's Secretary of Planning Diodoro Carrasco (Puerto Escondido, June 22, 1990):

> Although Solidarity does concern social outlay, its basic rust is economic. Forty percent of Solidarity funds go to increase 'economically productive activities' in agriculture, ranching, industry, and irrigation, and 60 percent go to 'social infrastructure,' a budgetary concept that includes the economic activities of constructing roads, electrical

> production and distribution, and housing. The providing of 'potable water' lines does not really involve drinkable water but piped water which ends the need for villagers and townspeople to spend time physically transporting water for commercial and household uses. While Solidarity does include 'social' outlay for schools and rural clinics of high level, even these outlays involve construction rather than operating costs.

Taking into account the above limitations, then, we can say that the long-term analysis of expenditure extended here through the 1980s yields a relatively consistent method for analyzing real policy of the Central government. The possible inconsistency is probably less than, say, 2 percent, with the possibility going up to 3 percent for 1980 and 1981 when the General category still was near 6 percent.

With these understanding, then, Table 11 shows the policy analysis for gross actual Central outlay through the 1970s, which links with my scheme for the 1980s shown in Table 12. In Table 12 there are 27 subcategories which explicate the 3 broad categories.

(Because in Table 11 we are limited to 9 subfunctions, I plan to continue my investigations to determine if it is now

possible to disaggregate the General category for the 1970s, thus filling out the analysis by secretariat and fund.)

To draw the long-term view of policy analysis, I show in Table 13 the evolution of my 3 functional categories from 1959 through 1989; and I show within Administration the subtotal for debt. Payments on the public debt (including amortization, interest, commissions, and costs as well as ADEFAS), reached 36 percent of gross actual expenditure in 1961, fell to about 11 percent in 1976, and then soared: to 46 percent in 1982 and to 71.6 percent in 1988. It held at 71 percent in 1989, leaving the Economic and Social shares increasingly starved.

Where Economic policy options had generally been much higher than Social, even through the populist Echeverría presidency from 1971 through 1976, the López Portillo presidency saw a surprising shift in 1977 before falling back into the pattern. (See Table 13 and Graphs 1 and 2.) After surpassing Economic in 1977 (34.4 to 32.8 percent), Social went into a decline. Although the Social share fell faster than Economic, since 1987 they have achieved equal poverty. Central policy favored paying the debt in a manner that make's Porfirio Díaz's amount paid on the debt seem low--28 percent. (On Díaz's expenditure, see Wilkie, 1970, p. 108.)

Table 14 shows the average policy emphases of Mexico's presidents since 1935. Only Presidents Lázaro Cárdenas, López Mateos, and Díaz Ordaz sought balance in shares between the 3 broad categories. Since 1983 any idea of balance has been abandoned, largely because of the rising schedule of debt payments inherited from Echeverría and López Portillo. Regardless of that inherited schedule of payments, however, Mexican presidents have the power to reprogram funds, and the real policy of Economic and Social expenditure since 1983 seems excessively low.

5. Future-Oriented Planning for Expenditure in Mexico

Given the above analysis which shows how confused budgeting has become in Mexico, and how little Central officials can know from published data what policy entails, the future of planning for the remainder of the Salinas term is clouded. Until Mexican budgeting shifts from mythical analysis of impact to policy choices, little real planning can take place.

Indeed, interpretation of what has happened to Mexico's expenditure is especially befuddled by SPP's program analyses which argue that Economic share has been in the 60 percentiles for Public Sector activity in the 1980s (Table 15), with Social gaining from 23.3 to 31.4 percent in share. Further, total planned social expenditures for 1990 are set at an unrealistic 37

percent (Table 16) compared to less than 9 percent actually spent for 1989 (Table 13).

My method of analysis for 1990 suggests that the outlook for Social outlay in 1990 and beyond is compromised by several factors. Although the 1990 budget sets Social expenditure at 37 percent and reaggregation according to my method suggests 16.5 percent (Table 16), if my view of actual data for 1989 are a guide then Social outlay of 8.6 percent is a more realistic figure (see Table 12).

Interviews with budgetary officials who do the planning at various levels of government confirm that the actual outlay will be much lower than projected, especially in light of inadequate budgetary consultation between SPP and the Central agencies. According to the official in charge of budgetary control and analysis at the Secretariat of Health (SSA), Luis Humberto Delgado García (Mexico City, March 30), his office does not have the funds to employ a unit to do budgetary analysis. The budgetary proposal that he sends to SPP for funding is based upon the operational requirements as submitted by Health offices without analysis and includes estimates only vaguely rooted in empirical data about the need of his agency to expand into the poor areas of the nation. Delgado García notes that SPP reduces the Health budget without discussion with or appeal from the

agency. Hence, planning in Mexico is at best a nominal process that is really adrift. Indeed the planning office of the Secretariat of Health had been abolished in 1989 and is only being reestablished in 1990 after great difficulty and confusion.

With regard to difficulties in planning in Mexico, let us quote SPP's own internal assessment of problems as expressed in its document titled "Proyecto de Presupuesto 1989: Principales Problemas," dated December 5, 1988. According to SPP, because the Secretariat of Health was projected to spend 18 percent of its resources on administrative activities (in comparison to the 5 to 7 percent recommended by the World Health Organization), SPP proposed (and later carried out) the abolishment of the Subscretaría de Planificación, thus leaving only two undersecretariats (Health Services and Sanitation). But by early 1990 SSA had recognized the error of leaving planning to its underfunded office of budgetary control and analysis which could not afford to make any analyses, and it is attempting to reorganize a planning function that can generate data from the field.

According to the above 1988 SPP confidential view of some of the principle budget problems for 1989:

> To date SSA has decentralized health services in 14 states. Nevertheless, this process is still being

consolidated. While it is good that the number of beneficiaries has increased, the quality of service has not improved in all cases

It is the opinion of [SPP] that decentralization of health services for the uncovered population should not proceed until the process has been consolidated in the first 14 states and until IMSS-COPLAMAR services are rendered satisfactorily.

Decline in IMSS income, caused by the fall in real salaries and the increase in costs generated by the accelerated increase of demand for IMSS services and the increase in cost of materials requires that the premium for IMSS insurance be increased in order to raise pensions and to eliminate short term financing.

ISSSTE requires a profound organizational change in medical services . . . in order to decentralize the capacity to decide upon acquisitions, maintenance, works, and personnel . . . and to develop adequate supply and planning. ISSSTE administrative costs should be limited by law at the same rate as for FOVISSSTE.

SEP lacks the funds necessary to cover reclassification and promotion of personnel in the

Higher Education Module.

The amount of transfer funds to CAPFCE . . . does not contain funds to build any new schools. Nevertheless, . . . by operating double time and with larger class size, the goal of consolidating schools can be adequately met, thus allowing the creation of some new schools.

With regard to road construction and maintenance, budgets for the period 1983-1988 were 40 percent below the amount needed, . . . thereby leaving [at least] 11,300 kilometers of pavement too thin and with lowered useful life. Of 1,500 units of machinery and equipment, 50 percent is past its useful economic life, thereby causing considerably higher maintenance costs.

Of 4,000 bridges in the road network, only 35 percent are in good condition, . . . 360 [9 percent] requiring major reconstruction.

An emergency program for roads and bridges needs to be instituted to combat the lag in work needed and 185 million dollars are needed annually in order to prevent new lags from accumulating.

With regard to the federal microwave network, 80 percent of the equipment is obsolete; . . . and the

funds authorized for 1989 are 50 percent of what is needed.

To overcome the deficit in outlay by the Secretariat of Communications and Transport (SCT), in 1990 funds will have to be transferred from investment to current outlay.

Completion of the National SCT Center was scheduled for 1988 but has not been possible because necessary investment was not forthcoming in 1986, 1987, 1988, and 1989.

Although TELMEX is raising its rates to match inflation, domestic operating expenses are still running a deficit and only the international service makes a profit. [There is urgent need to invest 10 billion dollars to digitalize the telephone system and bring it up to modern standards.]

While use of the telegraph system for communication has declined, use of the system for wiring money has increased, converting the telegraph into a national banking network. Although rate increases did not cover current operating costs through 1985, it is [hoped that the much needed decentralization of service] in 1989 telegraph income

will finance current and capital costs.

The development of SCT's Computerized Airline and Tourism Reservation System (SERTEL) is underfunded by 25 percent, mainly in personnel and general services. Therefore it is not possible to complete the planned consolidation of airline and travel agency reservations.

With regard to railroads, the period 1983-1988 involved modification of laws to fuse the five national companies into one, reclassify job descriptions and terms of work, allow increase of rates according to inflation, and sanitize financial activities. The railroad now raises enough income to cover current expenses; but although the [central government] has assumed 66 percent of the document railroad debt, it will have to support payments on the railroad debt through 1992 as well as investments.

Although the railroads have achieved double-tracking necessary to relieve traffic congestion in the routes Mexico City-Querétaro, Mexico City-Veracruz, and Lechería-Cd. Mendoza, [the direct route from Guadalajara to Monterrey remains to be completed as does electrification of the Mexico City-Veracruz

route].

Further, the vast majority of the railroad rolling stock is over 50 years old and must be replaced within the next five years, and there are no real funds available to undertake this necessary modernization.

Concerning government planning of realistic budgets for the period 1991-1994, I could locate only three agencies that claim to have any future plans: Education, Labor, and IMSS. The first two admitted that their plans to 1994 are now far outpaced by inflation and are uncertain because of the possibility of a debt "dividend" from the May 1990 round of international banking "settlements." IMSS says that it is in the process of preparing for the first time future projections, but they were not available at the time of this writing.

SPP's emphasis on planning seems to focus on estimating what will happen to GDP. As of April 1990, GDP was expected to grow at the real rates shown in Table 17. The projected growth of GDP in .5 percent increments yearly is arbitrary. Thus, starting with a 3.5 percent increase in GDP for 1990, the gain would reach 6 percent for 1994. However, the assumptions for such gain are tenuously based. Too, as long as inflation remains a question and the peso is valued too high, planning at all levels becomes doubtful.

Mexico's budgeting system needs to be refocused to examine the policymaking role of Central agencies in relation to their power over budgetary decisions, not the extent to which the mythical Public Sector spends money. Mexico needs to develop a consistent method for analyzing budgets from year to year for the long term, as is suggested in the approach presented here which allow interpretation of policy since 1900.

6. Understanding Educational Budgetary Needs by the 1990s

Let us examine the current budgetary needs for education by analyzing expenditures since 1970. (See Table 18, developed in my consistent terms for the years from 1900 to 1989.) The actual share of outlay devoted to Education (including transfers to universities) reached Mexico's historical high under President López Portillo, 16.4 percent in 1978. JLP's average was 15 percent for his six-year term compared to Echeveria's 14.7 average.

Following the initiation of the economic crisis, education fell to 9.1 percent in 1983, but recovered to 10 for the years 1984 and 1985. Subsequently MMH let it fall in 1988 to 6.3 percent, the low for education since President Alvaro Obregon's 4.0 percent in 1921. From 1987 through 1989 MMH and CSG both fell below Diaz's average of 7.5 percent for the years sampled

between 1900 and 1911. (See Table 18.)

This shock to education in the 1980s had tremendous impact because the amount of Central real outlay per capita fell from its high of 1,445 standard pesos in 1982 to 1,078 in 1984 and, by the time of the 1986 low percentage outlay of 7.4 percent, had regained only to 1,364 pesos. (For 1950 pesos per capita, see Table 7.) Slight improvement in total Central expenditure came in the years 1987-1989 when the capita outlay rose to its historical high of over 1,500 pesos per capita, but the gain did not accrue to education which saw its share of expenditure fall to 6.3 percent.

For education in per capita terms of 1950 pesos, the high of 163 came in 1982, fell to 108 in 1983, 101 in 1986, and 96 in 1988. (See table 18.) The figure for 1989 regained slightly to 102. Although this low figure for 1988 was 50 times higher than the Obregón figure of 1.9 real pesos for 1921, one can imagine the blow to Mexico after 1982 precisely because the population had come to expect an impressive Central outlay to educate Mexico's booming growth in population and to upgrade schools necessary for economic and social modernization.

Based upon historical precedent and Mexico's desperate educational needs, Central outlay education should be increased to 20 percent. If in 1989 it had reached the 15 percent level,

which is the minimum requirement, that would have meant 239 real pesos per capita for education, not the 102 received. This minimum augmentation of education outlay would help meet the general crisis in university education.

The problem of financing Mexico's university needs is more complicated because by 1990 the Central government has established successfully the augmentation of salaries for selected professors in two ways. The two are Sistema Nacional de Investigadores (SNI) and university bonuses for their meritorious professors, both of the methods have advantages and disadvantages.

With regard to the SNI, professors may apply for salary to support their research. National Peer Review committees accept aplicants into the SNI if they meet qualifications of having built a research record and if they present proposals deemed worthy of funding. Salaries can range up to 10 minimum salaries per month. In positive terms, the SNI provides funds to scholars who might otherwise leave Mexico in search of a livable salary. Further, SNI is a merit system that implicitly attacks the power of unions in higher education. Because unions focus on job ownership in a context of political maneuvering within the labor scene in Mexico, they have not been interested in improving education within the university, hence the reluctance of the

Central government to provide sufficient funds to raise salaries regardless of merit.

One negative side of the SNI solution is that it justifies having the let the general level of salaries for university researchers fall as shown in Table 19. Where in 1982, prior to the economic crisis, the highest level professor/researcher earned 2,500 dollars per month, that pay was effectively halved in real terms during the course of the same year. That pay level was halved again by 1983 (to 565) and continued its fall to as low in 1987 as 321 real dollars. Subsequently it rose again to reach about 600 dollars by 1989, but this amount was still 76 percent lower than its high in 1982. Although income from the SNI has offset some of this loss for top level profesors and researchers, that income has come from outside their universities, diluting the traditional system of incentives and loyalties within each university.

About the SNI's process of award, there is debate. Some scholars argue that the SNI awards are based upon favoritism. Other scholars argue that the SNI works well as an independent body.

With regard to university bonuses, they have been established to give each university rector the ability to reinvigorate internal incentives and loyalties by payment of

merit bonuses to top faculty. The faculty can receive bonuses in additon to SNI awards, the two extra incomes if fully awarded tending to restore the highest salary shown in Table 19.

Unfortunately, neither the bonuses nor the SNI funds are automatically granted nor are they automatically renewed. Rather they must be applied for and are granted as contracts for research that must be fulfilled. Although the reserach is the scholar's own, it must be completed in bureaucratically defined time span, otherwise renewed funds will not be forthcoming. The bureaucratic problem for the bonuses and for the SNI is that while they allow a simple quantitative measure of output to determine who should receive the bonuses, they involve time spans that are frequently unrealistic to meet international standards of quality. Too often, then, the bonus and the SNI, which have been invented to reward meritorious scholars, discourage research of much merit. Major research projects may take years and must allow for the need to change the parameters of hypothesis and method, change that is discouraged by the bureaucratic contracts as presently awarded.

As long as the faculty must rely on the SNI and bonuses to be able to afford to hold a university position, the underlying efficiency of higher education in Mexico is threatened, as is academic freedom. The need to rely on temporary but renewable

SNI and bonus funds inhibits the flash of genius and mid-curse corrections necesssary in major research projects. Constant peer review can be stultifying and lead scholars away from the cutting edge of research into the "safe" main stream of investigation.

Meanwhile, salaries of primary school teachers are at a ridiculously low level. In mid-1990 the average primary teacher in Jalisco earns 225 dollars monthly, according to the state's Director of Basic Education José Manuel Correa Ceceña. Only if two primary teachers marry and join their two incomes and also work two full-time shifts (one in the morning and one in the afternoon), then as a couple they can make 900 per month--a family wage of poverty. The primary teachers' wage is supplemented by access to the state's medical care system, a credit scheme, and a retirement plan, but all are inadequate and inefficient--a simple medical appointment requires a day's leave from work, credit has been squeezed to cover poor (if any) housing, and the retirement pension is a pittance.

Beyond salaries, the system of instruction from preschool to the university has been overwhelmed by the growth of student population that has far outpaced budget to accommodate it. (See Table 20.) While the student population grew by 212 percent during that ten-year span between 1979/1980 and 1988/1989, real per capita outlay decreased by 95 percent (as calculated from

Table 18.)

Mexico's problem is staffing and building for education when the distribution of students needing different levels is shifting. In 1979, 70 percent of Mexico's 16.4 million students were enrolled in primary school, but by 1988 the primary students made up only 58 percent of the country's 25.4 million students. Although primary growth continued apace (73 percent increase), it must compete with the bachillerto enrollment (which grew 74 percent), secondary (which grew 54 percent), and other categories (147 percent, including vocational which grew at 341 percent.) Secondary students which made up about 15 percent of total enrollment saw their share go to 17 percent and the preschool students saw their share more than double in size.

The ratios shown in Table 20 for shares of students by level of education in relation to shares by outlay have seen all but higher education decline since 1979. (In the ratio 1.0, equals equilibrium). Indeed, the outlay for secondary and bachillerato students had declined from a favorable 1.2 and 1.3, respectively, to .9 and .8. Where the ratios for for preschool and primary (at .4) should be below 1.0 because their share of students cannot justifiably command a commensurate share of outlay, higher education (at 4.6) is correctly much higher than 1.0 because of the expense of research and degrees required for teaching.

Two ratios in Table 20 require immediate adjustment upward. First, the ratio for higher education should be increased to 6 to recover from the extreme shortages of the 1980's, for example to allow research libraries to fill in the gaps in books and journals sacrificed by SPP to help pay the national debt. Second, the ratio for the bachillerato should be increased at least to equilibrium in order to keep the bulge in students at that age level flowing effectively from the primary level into one university system.

For primary education, the achievements of schooling vary. Although Mexico has now achieved an average sixth-grade level of education, the variance of average levels is shown in Appendix H. Where in 1988 the average for the Federal District was nearly 9 grades, the average for Chiapas was less than half that figure. For the state of Jalisco which stood near the national average with about 6 years of schooling, researchers led by Jesús Alejandre Arroyo at the Universidad Autónoma de Guadalajara have written that such an average does not prepare the youth to become productively active within the Mexican market, which is saturated with such low-skilled workers, hence the departure of youth to work as braceros in the United States. Jalisco provides 15 percent of all Mexican immigrants to the United States, the majority being men in the 16 to 20 age group who are employed in

agriculture and who have no future in the Mexican educational system. (Alejandre and his group estimate that braceros send 3 billion dollars yearly back to Mexico, as quoted in U.S.-Mexico Report, July 1990, p. 12.)

For the university in Mexico, enrollment of persons in the age bracket 20 to 24 years old remains low even though it has made gains. The enrollment in the university of university-age population has tripled since 1970. (See Appendix I.) At the onset of the 1970's, 5.4 percent of the university-age group was enrolled, a figure that doubled by 1976 and reached 16 percent by 1988.

Within higher education, priorities of enrollment for the first year of the licenciate have changed gradually since 1970. (See Appendix J.) Where in 1970 agricultural sciences enrolled 3.5 percent, by 1980 that share had headed toward toward its 9.0 percent of 1988. Natural and exact sciences declined from 5.4 percent to 3.0 percent in the same 18-year period; and the share enrolling in engineering and technology fell from about 34 percent to 28 percent. The big gain in share came in business administration which rose from 38.5 to 42.0 percent (these figures include social science, which may have actually declined). While education gained from 3 to 4 percent in share, health sciences declined from 15.7 percent to 14 percent.

One ratio in Table 20 calls for adjustment sharply downward. The category for other purposes of expenditure seems unjustifiably high given the worsening ratios for the major functions of primary, secondary, bachillerato and university education. Although "other" has declined in ratio, its percent of expenditure has increased from 25 to 29 percent, suggesting the possibility for major paring.

Within the category of other, it appears that administrative outlay could be reduced. It stood at 6.9 percent in 1970 and 6.1 percent in 1988, and the goal should be perhaps 3 percent. The education bureaucracy has been notoriously bloated and inefficient, with the education unions using government funds to run a paralled administrative system that actually determines the posting of teachers. The administration of education should be streamlined and the unions eliminated from participation in affairs.

One budgetary share of expenditures shown in Table 20, 2.4 percent for culture and administration of museums and archeological sites, should be transferred from SEP to the Secretariat of Tourism, at least once those places are open to the public. Given the world-class stature of Mexico's museums and archeological sites, their role in foreign and domestic tourism should be recognized, with foreign tourists being charged

more that Mexican nationals for visits to facilities. Once research and restoration are completed and facilities and ruins are opened, then SEP need not use its budget to subsidize culture for foreigners, who is any case should contribute to the tourism infrastructure.

Investment in education is yet another matter for us to consider, but the parameters of the concept must be redefined to avoid the confusion caused by SPP. SPP gives investment in education as a share of total investment (that is the emphasis in relation to an arbitrary and shrinking parameter) rather than as a share of Central governments gross outlay (that is the emphasis placed on educational investment from among the full range of policy choices available to Mexico's presidents). SPP parameters given here in Table 15 inflate misleadingly the benefit of investment in education, for example claiming that education received 6 percent emphasis as late as 1985.

Although SPP does not give us figures on Central government investment in education, in my view we can use its data on Public Sector investment as a proxy, at least for education. I have developed Table 21 on the premise that virtually all Decentral outlay for investment comes through transfers from the Central government. (This premise is validated by the data in Table 27 where we will see that the only selected Decentral education

units of note with their own source of funds for investment are CAPFACE with .1 percent and UNAM with .03 percent--miniscule amounts.)

Figures in Table 21 show that 1985 investment in education as a share of gross Central outlay stood at only 1.4 percent in the range of policy options, not 5.9 as suggested in Table 29. Indeed, in my view, educational investment's .9 percent did rise to 1.4 in 1985, but then it collapsed after 1986 to a share that has averaged a disastrous .4 percent (not 3 percent set forth in Table 29).

Comparison of the SPP and Wilkie views of capital outlay for education suggests the extent to which SPP analysis overstates the Central emphasis in Table 29. Table 21 corrects to show the real emphasis. Given this revised view of investment, let me suggest that capital expenditure was deferred during the 1980s and that if it is not quintrupled for the 1990s Mexico will face great difficulties in forging a labor force (including engineering, management, marketing, and finance) that can compete successfully in an opening world economy. Indeed the share of enrollment in engineering and technology has declined 17.4 percent during the last 18 years, as can be calculated from data in Appendix J.

That federal education has gained in expenditure in relation to state and local government and the private sector is shown in Appendix K. In 1959 the federal share was 62 percent. That share reached about 80 percent by 1982 and has held just under that figure through 1987. The combined rate and local government share have fallen from 23.1 to 12 percent during that 28-year period, with private education falling from 12 to less than 10 percent. This growth of federal power is a crucial problem for Mexico because it means that non-federal government is not capable of balancing distortions in federal education policy.

7. Health Budgets for the 1990s:

Proposal for SANITATION

(a National Food and Water Sanitation Campaign)

Because SSA's role and budget have been compromised, it is appropriate now to rethink the Secretariat's future; and I propose below the direction the agency should take. Before taking up the future, let us consider SSA's past.

The Central share of gross outlay devotd to health reached its twentieth-century high in the 6 percentiles under Presidents Cárdenas and Avila Camacho. (See Table 18.) President Alemán began his term with near 5 percent dedicated to health outlay but left the share at 2.5 during his last year in office, 1952. Thence the share averaged 3 to 4 percent until it began its

decline under JLP, who in 1980 let if fall to 2.1 percent, the post Calles low since 1926. Ironically, it was JLP under whom real pesos per capita reached their high this century--24.9 in 1979. By the time JLP left office, he deemphasized health further by cutting it to 1.4 percent of gross Central outlay, 20 real pesos per capita. Health has fared even worse under MMH and CSG, the share falling to .9 since 1987. In real pesos per capita, the 14 pesos for health since 1987 is a post 1971 low.

The picture of Central investment in health is not clear and does not allow us to make the type of analysis developed above for education. Shortfalls in health investment are difficult to fathom because SPP budget analysis obscures the role of the origin of investment funds. Further, investment in health includes Decentral's IMSS and ISSSTE which have their own sources of income for investment beyond the Central government; further IMSS and ISSSTE pension funds are borrowed internally in those agencies to cover health services.

In Mexico's bureaucratic battles the role of SSA has been subordinated to that of IMSS, which won the right to oversee health coverage for the COPLAMAR and Solidarity programs to provide medical care for the poor. Although theoretically the Central SSA should have expanded its coverage of the population without coverage, policymakers ostensibly argued that the IMSS

bureaucracy is better organized and more efficiently run to absorb the funds. In reality, IMSS has income from subscribers which has been diverted to cover nonsubscribers, saving the Central government from having to augment the SSA budget (Wilkie, 1990b).

Although Mexico has made public health gains in innoculating the population against disease and SSA's clinics compete with IMSS and ISSSTE to deliver improved curative treatment for disease, the Public Sector health system in Mexico has failed to offer any successful program of preventive attack on intestinal infection, the major disease that contributes to Mexico's high rate of infant and child mortality, incapacites workers, and discourages visits by foreign tourists. In light of this failure, there is urgent need for one Central agency to assume a new role in developing national health.

The most important cause of death in all ages in Mexico is intestinal infection, according to the latest available data. (See Table 22.) Although the rate for such infection has improved since 1979, it has gone from the second-ranking cause of mortality to first, the rate standing in 1986 at 37.2 per 100,000 persons. The same ranking pattern hold for infant deaths from intestinal infection, but the rate in 1986 was an astounding 529.4 per 1,000 registered live births. The number one ranking

of intestinal infection holds for all age groups except the adult, where it ranks seventh, worsening from eighth in 1979.

Let me propose, then, that SSA set out to resolve Mexico's number one health problem: disease cuased by unhealthy food and water, the safety of which have been also compromised by inadequate sewage and garbage disposal. It is my proposal that SSA refocus its energies to undertake a National Food and Water Sanitation Campaign (SANITATION). Because Mexico's public health record is one of the least effective in Latin America at assuring the safety of the food and water supply and because it has been remiss in monitoring what is made available by whom through restaurants and food stands, Mexico suffers from serious gastric illness. The campaign proposed here against intestinal illness has the added advantage reducing hepatitis and typhoid fever.

In making this proposal, let us be aware that Mexico faces four historically serious problems in monitoring the food and water supply to prevent gastric illness:

> One, poor farmers cannot afford to purchase artificial fertilizers and hence use "night soil" to ferilize their fields.
>
> Two, the low-level of health education of the general population obviates against care in handling food and disposing of sewage.

> Three, the poor who do not have indoor toilets have been accustomed to defecating outdoors on vacant lots, an ecologically serious problem in Mexico City where the fecal matter dries in the sun and then is blown about in the form of what is called "fecal rain."
>
> Four, the cities of central Mexico are hampered in sewage disposal by the fact that the underground sewer lines run parallel to the water lines in an area where constant small earthquakes and frequent large quakes rupture the lines and allow intermixture. Federal, state, and local government offices have not been able to keep up with constant repairs needed to keep the water system safe let alone find the funds to completely rebuild the lines to prevent sewage from contaminating the water supply.

SSA's National Sanitation Campaign should involve developing a coordinated plan and enforcing national policy designed to eliminate the scourge of diarrhetic and diarrheal disease that frequently weakens most of the population, the majority of which has been debilitated by long-term affects of parasitic infection. The elements of SANITATION require that extensive education must be instituted along with licensing of markets and restaurants to ensure that:

-fresh vegetables are free from night-soil,

-water is safe,

-restaurants wash dishes with appropriately heated water,

-excessive and rancid grease are eliminated from cooking,

-food is properly refrigerated,

-the adding of contaminated water to food and milk pruducts is stopped,

-restaurants kitchens are clean and infestation-free,

-food handlers are provided with restrooms that have functioning toilets, hot water for washing hands, and a basic standard of cleanliness,

-public toilets are provided strategically and serviced by government and business,

-disposal of sewage and garbage is done hygienically

Until the mass of Mexican population comes to understand the need for increased hygiene and that gastric illness is not inevitable, the population cannot be fully productive. SANITATION would have the added advantage of reinforcing SSA's campaigns against the adulturing of such foods as cheese and milk.

At present the public health scene is fragmented among many Central and Decentral agencies and no positive plan exists to bring together a coordinated approach against diarrheal illness. For example, development of the "potable" water system for Mexico falls under BANOBRAS, which notes that at best it is trying to supply communities with "piped" water, regardless of potability. A new approach at SSA would focus on helping communities to realize that the piped water cannot be safely used for drinking and cooking unless it is boiled. Communities should be certified as to their ability to monitor, chlorinate, and maintain the safety of the supply system under penalty of decertification. Legally, markets of Mexico City are required to wash night-soil from arriving vegetable shipments, but there is no real enforcement of this law.

The development of SANITATION as called for here has several advantages. First, the plan can be feasible financially because the cost of carrying out and monitoring it can be borne by SSA recruitment of students who need to meet their social service requirement in order to receive university degrees in public health, sanitary engineering, medicine, and nursing. Second, SSA will benefit from the prestige of taking on a major battle to improve living standards, restoring morale to an agency adrift.

The expenditure basis for SANITATION barely exists in SSA's 1990 budget, with at best 4.8 percent of agency outlay identifiably dedicated to the focus outlined here. (See Table 23.) Within this existing activity, 2.4 percent goes for regulation of sanitary and environmental affairs; and 1.7 percent for the National Nutrition Institute and .7 percent for health education--items in which SANITATION is only a part. There is no effort set apart in the 1990 budget for prevention of food-and water-borne disease, sanitary engineering, or construction of public toilets. There is no Diarrheal Disease Control Center. Although SSA plans to also call for instituting a health education unit in its Family Planning division, that unit was not funded in 1990.

That the SSA has overemphasized curative medicine at the expense of preventive medicine and sanitary regulation is shown in Table 24. The curative share is 46.9 for 1990. Such a figure is at once too high and not high enough. As long as the curative medicine approach leaves meager funds for SANITATION, curative medicine does not have enough money to cure Mexico's population, much of which is either dying from or opened to other infections through weakness brought about by gastric illness.

To develop the SANITATION campaign, the Secretariat of Health budget should be increased so half of its budget can be

allocated to SANITATION, explicitly making sanitary engineering into a major activity along with establishment of standards and enforcement of the food and water supply as outlined above. This refocusing and reenergizing of SSA requires that its yearly share of gross Central outlay be increased from its real .9 percent in 1989 and "planned" 3.5 percent in 1990 to at least 12 percent, with perhaps an additional 3 percent yearly being required to launch activities for the first 5 years. Reorganization of SSA will require increased personnel, salaries, and investment.

8. Central Salary Needs

Expenditure by the Central subsector of government is conditioned by two major factors: salaries and capital investment. Let us analyze in Table 25 what has happened to the share of outlay devoted to salaries; and we will take up the matter of investment in Part 9, below. Where in 1979 the share of Central and Decentral outlay stood at the same level for each subsector, 17 percent, that relation began to change in 1982. While the Decentral share has held above 15 percent (except for 1983 and 1984) and again stands at near 17 percent, the Central share has declined to 7 percent.

The sharp drop in Central salary share has contradictory aspects. On the one hand, it seems to make sense for MMH and CSG to have sought to streamline government operations and reduce

what can only be called "on-the-job-retirement." On the other hand, as the Central government regains the budgetary power that had been lost to the Decentral sphere, it needs to have a working core that can plan and carry out such important policies as educating the nation and upgrading health conditions. For example, the elimination of whole floors of economists at SCHP may have helped reduce interventionist tendencies by the Central government, but also it has meant that the government cannot properly plan, evaluate, and analyze what it is now trying to do; and given poor wages, too many bureaucrats must work two full-time jobs.

Beyond the total salary shares in running the government, the salary shares within selected agencies are quite revealing. (See Table 26.) There is an enormous discrepancy between SEP, SSA, IMSS, and ISSSTE, which go from highest share to lowest share in that order. Because the biggest cost of SEP is paying salaries to operate schools, the 60 percent ranges makes some sense. By the same logic the largest cost of SSA is paying salaries to run clinics and hospitals, however, SSA has seen its share of salaries go from an excessive 68 percent in 1983 to 51.8 percent by 1989. Finally, although IMSS and ISSSTE do many of the same activities, ISSSTE has always had to do with a smaller share for salaries than IMSS. It is interesting to note that the

IMSS share has fallen progressively from 55.3 percent in 1983 to 33.6 percent in 1989, but that ISSSTE has held in the 20 percents. The exception for ISSSTE was 1985 when the share went to 31.5 apparently to permit salaries to compensate for past losses. (The "yo-yo" effect in salaries must have been impressive for ISSSTE employees between 1983 and 1985).

If SPP seeks a standard for government agencies to pay the least salary to achieve productivity without waste, IMSS would seem to be eligible for a prize. Indeed, with its share consistently falling 15 to 20 percent below that of SSA, IMSS won the bureaucratic battle with SSA to service the unprotected population through Solidarity. Where inefficient productivity in relation to salary at SSA and ISSSTE can be blamed on too high and too low a salary share, respectively, IMSS results can be faulted for having achieved much productivity at a relatively low salary share by making patients wait for medical services.

Government efficiency is hampered by legal absence from work of IMSS employees who work only 33 hours weekly, the least number of hours for any major enterprise sampled in Appendix L. IMSS workers also have the most time off work for vacation (24 days) and for personal leave (9 days). Only TELMEX employees have more time for vacation (31 days) and personal leave (11 days).

The role of students completing their social service requirement accounts for some productivity at low cost. When IMSS won the battle to control Solidarity, it increased its need for and ability to hire social service workers at token pay while they complete their degrees. The refocusing of SSA with a national mission of SANITATION would allow SSA to operate more efficiently because national missions are attractive to students who want to participate in the new activity.

9. The Myth of Public Investment in Mexico and Reconceptualtion of the Central Government Role in Capital Outlay

In order to make policy effectively and to allow public evaluation of that policy, the Central subsector needs to separate its investment outlay from that of the Decentral subsector. Although the Central government originally thought that it could appear to be doubly important by pretending to be in control of Decentral funds, we need to realize that the Public Sector investment data do not jibe with SPP reporting on public sector total gross expenditure. While the investment figures are for on- and off-budget agencies and funds, the total gross expenditure excludes off-budget data.

Let us turn to my analysis of the real investment picture for 1988, as is given in Table 27. Fully one-fourth of Public Sector investment has remained off-budget, the main reasons for

which are several. On the one hand, the Secretariat of the Controller General neither has enough qualified staff to audit hundreds of Decentral agencies nor do the agencies operate with standardized budgeting rules; on the other hand, the agencies generate their own income through fares, fees, sales, contracts, rentals, leases, licenses, royalties, etc., and in many of these agencies the government is a minority-share holder. In any case, if Decentral agencies are supposed to autonomous, the very real question always exists as to what financial control the government should have over the Decentral sector, if any.

In arguing here that the entire Decentral sector should be taken out of the budget, it is important to note that 47.6 percent of actual Public Sector investment in 1988 came from the agencies' own revenue sources. The 20 percent off-budget will increase in the 1990s because the Central government is selling off its shares in or closing plants many of which were doubtful investments from the outset or hurt the country in round-about ways.

In relation to SANITATION, to give an example of round-about social harm, I am aware of a 50-million petrochemical plant in Tabasco built by PEMEX during the halcyon rise in oil prices of the 1970s but which was abandoned in the 1980s because it was producing chemical fertilizers inefficiently and at inflationary

prices. Without market incentives, the costs of producing fertilizers rose beyond the ability of domestic farmers to buy them, let alone foreign farmers. "National ownership" in this typical case did not mean subsidizing fertilizers for Mexico's farmers; rather it meant Central subsidization of poor productivity at the expense of the rural masses, who could not foreswear the use of night-soil even if they wanted, and who must live with the resulting sanitation problems, as have the urban masses of central and south Mexico. The need for the SANITATION campaign discussed above must begin with substituting chemical fertilizers for night-soil to stem diarrheal disease, hepatits, and typhoid as well as to prevent further depletion of the soil. (Farmers routinely abandon depleted soil and move on to use slash-and-burn techniques, further contributing to the erosion problem that plagues Mexico). If Mexico's fertilizer plants can be sold--or even given--to the private sector, the possibility exists that they can be renovated to yet partially save the national investment, which to date has deprived the country of competitively priced fertilizers. Rather than subsidizing fertilizer plants, the government should subsidize its end use on Mexico's farms.

That the government cannot meet many of Mexico's investment needs by itself is evident in other areas as well. Beyond the

need for railroad capital discussed above, there is urgent need for 10 billion dollars investment in a phone system that can enable Mexico to participate fully in the world's computerized information revolution. The need for investment funds in TELMEX was hardly met in 1988. (See Table 27, Part 2.) For example, TELMEX invested 4.3 billion pesos or 1.9 million dollars at the 1988 average exchange rate. In reality, 1.9 million dollars did not allow TELMEX even to replace much worn-out equipment.

Given Mexico's deferred investment needs discussed above in Part 5, the decline in investment since 1979 is astounding. (See Table 28) Although Public Sector on- and off-budget investment is only partially included in gross Central outlay, the ratio is revealing. Where in 1979 investment was equal to nearly 80 percent of actual gross Central budgetary power, by 1983 the figure was 25 percent, and by 1988 it was 12 percent. This collapse in investment was not made-up by the private sector. During the 1990s private builders, for example, may construct roads in return for the right to collect tolls, but that will never cover the huge infrastructural needs of roads throughout the country.

SPP data on actual Public Sector investment is summarized by program in Table 29 for the period from 1982 through 1988. Although the figures seem impressive, they involve much myth

because they are mostly beyond Central control.

The functional distribution of investment is shown in SPP's view given in Table 30 and in my view given in Table 31. Quite different in definition (Public Sector vs. Central outlay; and off-budget agencies included vs. excluded, respectively), the shares are closer than we may have imagined. SPP sets the Economic share for 1988 at 85.1 percent as against my 83.9 percent. In my view Administration is 84 percent more costly than in SPP's view, but the absolute difference is only 2.1 percentage points. Social is within .9 percentage points.

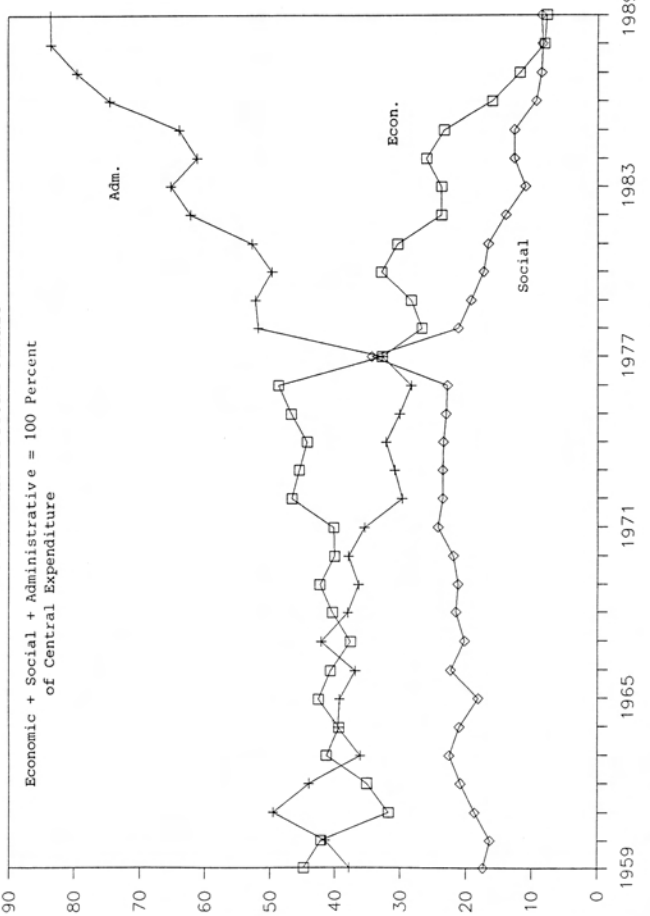
The big difference in my view of investment compared to that of SPP is that SPP overstates the government role--by 54 percent for 1988, as can be calculated from Table 32. SPP claims that 8.8 percent of Public Sector gross outlay went for investment in 1988. In my view the only meaningful figure is for Central outlay, 5.7 percent of which went for investment in 1988.

Refocusing of concepts about the nature of "investment" is in order, and SPP should now separate and redefine the concept as involving only Central activity. Transfers for investment should be counted in the Central sector and not in the mythical Public Sector.

GRAPH 1

WILKIE POLICY VIEW, 1959-1989

CENTRAL EXPENDITURE SHARES

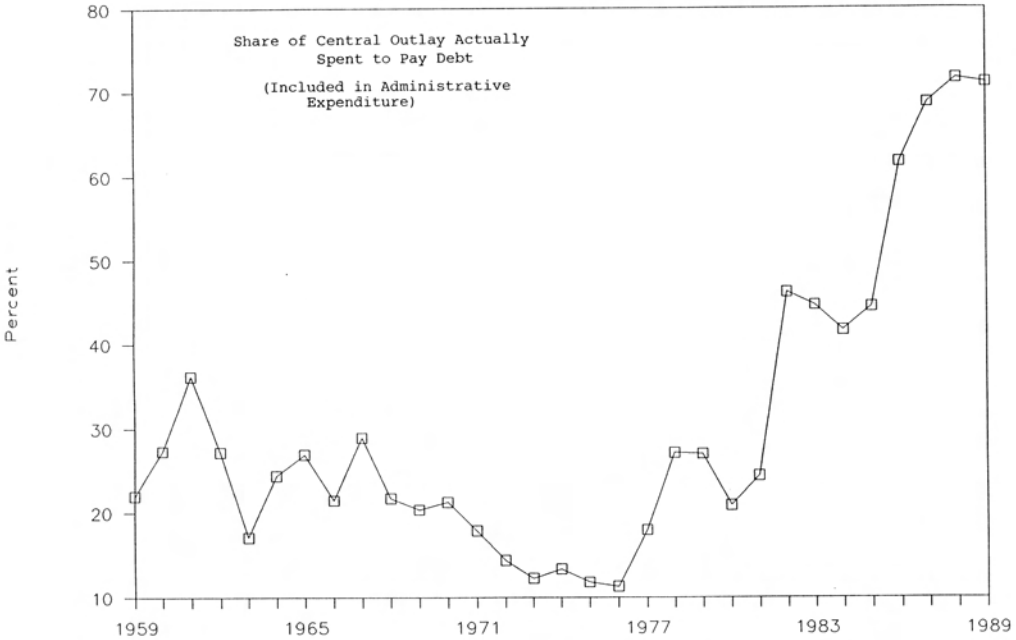


SOURCE: Table 13.

GRAPH 2

WILKIE POLICY VIEW,

1959–1989



SOURCE: Table 13.

Wilkie, Real Policies, p. 64

CHART 1

ANALYSIS OF PUBLIC SECTOR EXPENDITURE IN MEXICO SINCE THE 1980s:
A. Public Sector (On-Budget Central and Decentral Subsectors);
B. "Extended" Public Sector ("A" + Off-Budget Decentral and State and Local Governments);
C. Central Benefits to Private Sector: Transfers, Fiscal Incentives, Minority Shares

Line	Category of Expenditure	Category Included in Analysis: SPP Program Impact	Wilkie Policy Function
1	A. Public Sector (A1 + A2)	yes	no
2	A1. Central Subsector	yes	yes
3	Central Outlay by Federal Units:		
4	Executive (secretariats)	yes	yes
5	Legislature	yes	yes
6	Judiciary	yes	yes
7	General Account ("unclassifiable" items)	yes	yes
8	Central Transfers to:		
9	A2. Decentral Units On-budget	no	yes
10	B1. Decentral Units Off-budget	yes	yes
11	B2. DDF and State Governments	yes	yes
12	B3. Local Governments	yes	yes
13	C. Private	yes	yes
14	Central Revenue Sharing		
15	DDF and State Government	no	yes
16	Central Fiscal Incentives		
17	C. Private	no	yes
18	Central Invest in Minority Decentral Shares	yes	yes
19	Central Payments on:		
20	Public debt (including amortization,	no	yes
21	interest, commissions, expenses)		
22	and "sanamiento financiero"		
23	ADEFAS (debts owed from previous	no	yes
24	fiscal years)		
25	A2. Decentral Subsector (On-Budget)		
26	Decentral Outlay by Parastate Units:		
27	Agencies	yes	no
28	Companies with Majority Decentral Shares	yes	no
29	Decentral Expenditure of Central Transfers	yes	no
30	Funds and Trust Funds	yes	no
31	Public Debt	no	N.B. (1)

CHART 1 (Continued)
ANALYSIS OF PUBLIC SECTOR EXPENDITURE IN MEXICO SINCE THE 1980s:
A. Public Sector (On-Budget Central and Decentral Subsectors);
B. "Extended" Public Sector ("A" + Off-Budget Decentral and State and Local Governments);
C. Central Benefits to Private Sector: Transfers, Fiscal Incentives, Minority Shares

Line	Category of Expenditure	Category Included in Analysis: SPP Program Impact	Category Included in Analysis: Wilkie Policy Function
32	B. Extended Public Sector Total Outlay (A + B)	no	no
33	B1. Decentral Units Off-budget Outlay	no	no
34	Agencies (e.g. TELMEX)	no	no
35	Banks (development and commercial)	no	no
36	Companies with Majority Decetral shares	no	no
37	Decentral Expenditure of Central Transfers to Units	no (2)	no (2)
38	Sub-National Government (DDF, State, Local)	no (2)	no (2)
39	Sub-National Expend Central Revenue Sharing	no (2)	no (2)
40	C. Private Expenditure of		
41	Central Tranfers and Fiscal Incentives to:		
42	C1. Companies (personal, corporate, nonprofit)	no (2)	no (2)
43	C2. Companies with Minority Central/Decentral Shares	no (2)	no (2)

1) N.B. = Taken into account for informational purposes, the Decentral public debt ultimately being the responsibility of the Central government.
2) Except as included in lines 9 through 18.

SOURCE: Budgetary-data categories adapted from CSG, 1989, pp. 31-58.

CHART 2
THE UNSTABLE DECENTRALIZED SUBSECTOR:
CHANGING BUDGETARY CONTROL SINCE 1973

1. Companies and Agencies Brought Under Central Budgetary "Control" (1)

1973: CONARRIL--Constructora Nacional de Carros de Ferrocarril, S.A.

DINA--Diesel Nacional, S.A.

FFCC Son/BC--Ferrocarril Sonora/Baja California, S.A. de C.V.

FERTIMEX--Fertilizantes Mexicanos

FORVIGRO--Forestal Vicente Guerrero

INMECAFE--Instituto Mexicano del Cafe

PROPEMEX--Productos Pesqueros Mexicanos, S.A. de C.V.

SICARTSA--Siderúrgica Lázaro Cárdenas las Truchas, S.A.

SIDENA: Siderúrgica Nacional, S.A.

1975: IMCE--Instituto Mexicano de Comercio Exterior

1977: PIPSA--Productora e Importadora de Papel, S.A.

1984: AHMSA--Altos Hornos de México, S.A.

FUMOSA--Fundidora Monterrey, S.A.

1985: AZUCAR, S.A. DE C.V.

2. Companies and Agencies Liquidated

1982: INDECO--Instituto Nacional para el Desarrollo de la Comunidad Rural y Vivienda Popular

1985: IMCE--Instituto Mexicano de Comercio Exterior

1986: FUMOSA--Fundidora Monterrey, S.A.

1988: AEROMEXICO-Aeronaves de México

DINA--Diesel Nacional, S.A.

PROPEMEX--Productos Pesqueros Mexicanos, S.A. de C.V.

1989: SIDENA-Siderúrgica Nacional, S.A.

(1) Control = selective and/or sample audit.

SOURCE: Adapted from SPP, 1988, pp. 47-76; and CSG, 1989, pp. 31-39.

CHART 3

SCHEMES FOR ANALYZING MEXICO'S EXPENDITURE BY FUNCTIONAL CATEGORIES
1. SHCP; **2.** SPP-A; **3.** SPP-B; **4.** SPP-C; AND **5.** WILKIE

1. SHCP (1954-1980)[1]

[Economic]
- Communications and Transport:
  - Roads, railroads, buildings, markets, ports, airports, mail, telecommunications; public works (human settlements, 1977-1981)--shifts to Social in SPP-A.[6]
- Development and Conservation of Natural Resources:
  - Agriculture, ranching, forestry, irrigation, agrarian reform, fishing, etc.
- Development and Promotion of Industry and Commerce:
  - Subsidy and investment, regulation, electric energy, tourism, etc.

[Social]
- Education and culture:
  - Preschool, primary, secondary, normal, university, libraries, construction, etc.
- Health and Welfare:
  - Public health services, hospitals, construction, social and maternal assistance etc.
- Welfare and Social Security:
  - Medical and hospital service, pensions and retirement, support to Indian groups, etc.

[Administrative]
- Military Services, Army and Navy
  - Salaries, purchase and maintain equipment, construction, social coverages, etc.
- General Administration
  - Executive (inc security), legislative, judiciary, aid to state and local government.
- Public Debt
  - Foreign and domestic amortization, interst, commissions, costs, and ADEFAS.

2. SPP-A (1981-1983)[2]
(Shift to Programmable Concept, 1981--)[3]

Economic, as above, except new functional categories added as follows:
- Fishing (1981--)
- Tourism (1981--)
- Energy (1983--)
- Regional Development (1981-1988)--shifts to Social in SSP-C

Social, as in 1, above, except:
- Human Settlements (1981-1983)--was Economic in SHCP, becomes Urban Development and Ecology in SPP-B Economic.[6]

Administrative, as in 1, above, except:
- **Debt category excluded (1981--).**

3. SPP-B (1984-1988)

[Economic], as in 1 and 2, above, except:
- Urban Development and Ecology (1984-1988)--was Social in SPP-A, is Social in SPP-C.
- Rural Development (1984-1988).
- Basic Supply (1984--).

Social, as in 1, above

Administrative, as in 1 and 2, above.
- Military Services downgraded from major category to a subcategory (1984--).

Chart 3 (Continued)

4. SPP-C (1989--)
(See Table 3)

[Economic], as in 1 and 2, above.

[Social], as in 1 above, except:
Urban Development and Ecology (1989--), was Economic in SPP-B.[6]
Regional Development and Solidarity (1989--), was Economic in SPP-A.[4]

[Administrative], as in 1 above, except:
Justice and Security (1989--)

5. Wilkie (Since 1900)
(See Table 12)

Economic
Economic Secretariats[5]
- Agriculture
  - and Development (1917-1946)
  - and Ranching (1946-1976)
  - and Hydraulic Resources [Irrigation] (1977--)
- Hydraulic Resources (1947-1976)
- Agrarian Reform
  - (Department, 1934-1958)
  - Agrarian Affairs and Colonization (1959-1975)
  - Agrarian Reform (1975--)
- Communications
  - and Public Works (1891-1958)
  - and Transportation (1959--)
- Public Works (1958-1976)
  - and Human Settlements (1977-1983)
- Commerce
  - National Economy (1936-1946)
  - Economy (1947-1958)
  - Industry and Commerce (1958-1976)
  - Commerce (1976-1892)
  - Commerce and Industry (1983--)
- Fishing
  - (Department, 1977-1978)
  - Fishing (1979--)
- Tourism
  - (Department, 1959-1975)
  - Tourism (1975--)
- SEMIP
  - National Patrimony (1947-1976)
  - National Patrimony and Industry (1977-1982)
  - Energy, Mines, and Parstate Industry (1933--)

Economic Fund
- Investments (1947-1980)
- Earthquake Reconstruction (1986-1989)
- Regional Development (1982--)
- Economic Share of General Category[7]

Chart 3 (Continued)
(Wilkie, Continued)

Social
Social Secretariats[5]
  Health
    (Department, 1930-1943)
    Health (1943--)
  Education
Social Fund
    Social Share of General Category[7]

Administrative
Administrative Secretariats[5]
  Treasury and Public Credit
  SPP
    Confidential Secretary (1946-1958)
    Presidency (1958-1976)
    Programming and Budget (1976--)
  Controller General (1983--)
  Foreign Relations
  Interior
  National Defense (including Military Industry)
    Army
  Navy
Administrative Branches
  Judiciary
  Attorney General of Mexico
Administrative Funds
  Revenue Sharing and Fiscal Incentives
  Public Debt (including amortization, interest, commissions, costs)
    including "Sanamiento Fiscal" (mid-1980s)
  ADEFAS
  Administrative Share in General Category[7]

1. SPP continued the SHCP scheme from 1976 through 1980. The SCHP scheme is adapted from Wilkie, 1970, Appendix A.

2. The designations SPP-A, SPP-B, and SPP-C are developed here.

3. SPP excluded the categories of Public Debt and ADEFAS beginning in 1981.

4. But Regional Devlopment classified as Economic (not Social) in SEP, CEGE, p. 27--see Table 15.

5. For a chronology of Mexico's secretariats, see Wilkie, 1970, Part I; Camp, 1982, pp. 407-423); MMH, 1986, p. 95; and SPP, 1988.

6. Dates of secretariats may differ from how they classified by function, e.g. The Secretariat of Public Works became Human Settlements (1977-1982) and Urban Development and Ecology (1983--).

7. General Category = erogaciones adicionales; this category was eliminated in the 1980s.

SOURCE: SHCP, CP, yearly; SPP, CP, yearly; SPP, PE, yearly; MMH, 1986, p. 95; SPP 1988, pp. 79ff.; MV, January 15, 1989; Wilkie, 1970 (Appendix D), and Wilkie, 1978 (Appendix D and pp. 355-360).

TABLE 1
PUBLIC SECTOR GROSS ACTUAL ON-BUDGET OUTLAY COMPARED TO
AVAILABLE EXTENDED PUBLIC SECTOR OFF-BUDGET OUTLAY
IN MEXICO, 1980 AND 1989
(Billion Current Pesos and Percent)

Item	1980	1989
Absolute Outlay (MMP)		
A. On-Budget Public Sector Total (1,2)	1,711.7	267,995.1 (a)
B. Available Data on Off-Budget Extended Public Sector (TELMEX, DDF, Metro) (3,4)	102.0	11,421.7
Percentage Outlay		
C. B/A	6.0	4.3

(1) Public Sector total = (Central subsector on-budget) minus (Central transfers to units on-budget) plus (Decentral subsector on-budget, including Central transfers)--see Chart 1. For definition of "gross" terms, see Table 5, note 2. Actual expenditure contrasts with projected expenditure.

(2) Excludes extended Public Sector outlay, except includes Central transfers to extended public sector and private sector.

(3) Includes transfers from Central subsector.

(4) Excludes outlay in other off-budget units such as BANOBRAS, BANRURAL, commercial banking system, etc.

(a) SPP [illegible].

SOURCE: Adapted and calculated from data in CSG, 1989, pp. 31, 53-55.

TABLE 2

ANALYZABLE (1) FUNDS AS A SHARE OF MEXICO'S PUBLIC SECTOR AND CENTRAL AND DECENTRAL SUBSECTOR ACTUAL EXPENDITURE, 1980 AND 1989

(Billions of Current Pesos and Percent)

Part 1.

SPP's Analysis of Programmable Impact of Outlay

Item	1980		1989 (c)	
	MMP	Percent	MMP	Percent
. Public Sector Gross Total (A1+A2 less double-counted transfers and adjustments) (2)	1,711.7 (a)	100.0	267,995.1 (b)	100.0
Programmable Share (A1a+A2a) (3)	1,159.7	67.8	90,442.3	33.7
A1. Central Subsector Gross Total including transfers (4)	933.5	100.0	207,806.2	100.0
A1a. Programmable Share (5)	503.3	53.9	36,893.5	17.8
A2. Decentral Subsector Gross Total including Central transfers	905.5	100.0	70,460.5	100.0
A2a. Programmable Share (6)	656.4	72.5	54,915.8	77.9

Part 2.

Wilkie Analysis of Policy Function of Outlay

A1. Central Government Gross Total (7)	933.5	100.0	207,806.2	100.0
A1. Policy Function Share (8)	933.5	100.0	207,806.2	100.0

TABLE 2 (Continued), p.2

(1) For analysis of impact, funds are distributed by SPP into 10 program areas (según classificación sectorial), e.g. social, rural, industrial, etc. See Table 3.

(2) Gross Public Sector total deducts Central subsector transfers which are included in Decentral subsector; includes Central transfers to Decentral off-budget agencies; see notes a and b, below.

(3) Weighted by subsector.

(4) Central subsector gross total includes transfers to Decentral subsector and to off-budget agencies.

(5) Central programmable = A1's gross Central total minus payments on debt (amortization, interest, commissions, expenses, and ADEFAS), minus revenue sharing and fiscal incentives, and minus Central transfers to Decentral on-budget units.

(6) Decentral programmable = A2's Decentral gross minus payments on public debt (amortization, interest, commissions, expenses). Includes transfers from A1's Central gross total.

(7) Gross Central subsector total includes transfers to Decentral subsector and includes transfers to off-budget agencies.

(8) Functionally funds are distributed into three broad categories (economic, social, administrative) and over 25 subcategories; see Table 12, below.

(a) Public Sector Total for 1980 = (A1: 933.5) plus (A2: 905.5) less (Central subsector transfers to Decentral subsector: 127.3)

(b) Public Sector Total for 1989 = (A1: 207,806.2) plus (A2: 70,460.2) less 8,904.6 (Central subsector transfers to Decentral) less (other adjustments: 1,367.0).

(c) SPP estimate.

SOURCE: Adapted and calculated from data in CSG, 1989, p. 31.

TABLE 3
SPP'S VIEW OF THE PUBLIC SECTOR'S PROGRAMMABLE ACTUAL EXPENDITURE
IN 10 MEXICAN FUNCTIONS, 1970-1989

Total Percent = 100.0 (a)

Year	Total Impact	Rural	Regional & Urban	Fishing	Social (b)	Comm. & Transport
1970	100.0	5.9	3.3	0.0	26.3	10.8
1971	100.0	6.9	2.9	0.0	28.8	11.2
1972	100.0	8.4	5.6	0.0	28.1	8.9
1973	100.0	9.0	4.5	1.5	25.7	9.1
1974	100.0	9.2	3.3	1.1	27.3	7.1
1975	100.0	10.8	2.9	1.1	24.9	7.0
1976	100.0	10.7	3.6	1.3	29.3	8.1
1977	100.0	9.1	3.7	1.3	30.0	7.2
1978	100.0	9.1	3.9	1.2	28.8	6.4
1979	100.0	9.7	5.6	1.2	27.8	6.8
1980	100.0	12.0	5.4	1.1	25.6	6.9
1981	100.0	10.6	6.5	1.3	24.7	6.5
1982	100.0	9.4	6.3	1.7	27.6	6.9
1983	100.0	9.6	3.9	1.9	24.1	8.2
1984	100.0	8.5	4.4	1.6	23.3	8.3
1985	100.0	8.1	5.8	1.5	25.3	8.7
1986	100.0	8.2	4.7	1.8	26.0	8.5
1987	100.0	6.4	4.1	1.8	26.4	8.8
1988	100.0	5.4	3.4	0.7	28.5	7.0
1989 (c)	100.0	6.2	4.2	0.2	31.4	5.8

TABLE 3 (Continued)
SPP'S VIEW OF THE PUBLIC SECTOR'S PROGRAMMABLE ACTUAL EXPENDITURE
IN 10 MEXICAN FUNCTIONS, 1970-1989

Year	Basic Supply (1)	Tourism	Energy	Industry	Adm.
1970	6.4	0.1	28.9	0.4	17.8
1971	5.8	0.2	29.9	1.6	12.7
1972	4.8	0.4	27.2	4.7	11.9
1973	5.3	0.3	25.6	7.6	11.4
1974	8.6	0.3	25.1	7.4	10.5
1975	7.7	0.4	27.3	8.4	9.5
1976	5.4	0.5	24.8	6.9	9.6
1977	6.6	0.4	24.7	7.2	9.8
1978	7.1	0.4	27.9	6.6	8.7
1979	5.3	0.4	29.3	6.9	6.9
1980	5.9	0.4	27.5	7.8	7.3
1981	7.5	0.4	28.6	7.8	6.1
1982	7.0	0.3	26.8	8.0	6.0
1983	10.0	0.2	25.9	10.0	6.1
1984	9.3	0.2	24.6	13.2	6.7
1985	6.7	0.2	23.9	12.6	7.2
1986	6.2	0.2	25.3	12.2	7.0
1987	6.4	0.2	26.0	13.0	6.8
1988	7.0	0.2	27.3	12.9	7.6
1989 (b)	8.6	0.1	25.8	9.1	8.6

(1) Abasto = supply and consumption of basic food via industrialization process (e.g. growing, milling, storage, slaughtering, canning) transportation, marketing, (including regulation of stores and prices), and consumer protection.

(b) SPP estimate.

SOURCE: Calculated from data in Appendix D.

TABLE 4
WILKIE METHOD FOR CALCULATING GROSS ACTUAL CENTRAL AND DECENTRAL OUTLAY IN TOTAL PUBLIC EXPENDITURE, 1970-1989
(Millions of Current Pesos)
Part 1: Components

Year		Central A. Central (1) Subsector	Central B. Revenue Sharing & Fiscal Incentives	Central C. Public Debt	Central D. Transfers to Decentral On-Budget	Central E. Gross Central (A+B+C+D)	
1970		28,732	5,757	11,201	6,965	52,655	
1971		30,532	5,955	12,062	7,237	55,786	
1972		46,574	6,924	13,263	10,469	77,230	
1973		58,759	12,397	15,761	15,323	102,240	
1974		73,238	18,989	20,840	22,727	135,794	
1975		109,980	23,756	27,374	39,306	200,416	
1976		142,685	26,276	38,737	29,170	236,868	(a)
1977		178,856	28,935	63,392	41,746	312,929	(a)
1978		225,793	36,549	119,459	52,887	434,688	(a)
1979	(b)	316,600	62,200	175,500	71,700	626,000	(a)
1980		503,300	107,500	195,400	127,300	933,500	
1981		788,300	178,100	373,300	193,000	1,532,700	
1982		1,160,400	251,000	1,510,100	348,300	3,269,800	
1983		1,673,700	585,800	2,399,400	708,500	5,367,400	
1984		2,727,400	922,800	3,362,500	1,052,700	8,065,400	
1985		4,299,500	1,367,500	5,790,800	1,562,800	13,020,600	
1986		6,420,000	2,079,700	17,626,200	2,260,000	28,385,900	(a)
1987		14,484,300	5,213,800	53,386,700	4,163,700	77,248,500	(a)
1988		26,765,500	12,157,700	115,136,800	5,792,800	159,852,800	(a)
1989		35,526,500	14,176,000	147,832,100	8,904,600	206,439,200	(a)

TABLE 4 (Continued)
WILKIE METHOD FOR CALCULATING GROSS ACTUAL DECENTRALIZED EXPENDITURE AS A RESIDUAL OF TOTAL PUBLIC SECTOR EXPENDITURE, 1970-1989
(Millions of Current Pesos)
Part 1: Components

Year	F. Gross Total Public	G. Decentral Residual (2) (F - E)	H. Decentral Share in Public (G/F)	I. Decentral Ration to Gross Central (G/E)
		Decentral		
1970	102,706	50,051	48.7	95.1
1971	114,282	58,496	51.2	104.9
1972	140,291	63,061	45.0	81.7
1973	194,313	92,073	47.4	90.1
1974	260,074	124,280	47.8	91.5
1975	376,585	176,169	46.8	87.9
1976	450,804	213,936	47.5	90.3
1977	630,254	317,325	50.3	101.4
1978	861,879	427,191	49.6	98.3
1979 (b)	1,141,600	515,600	45.2	82.4
1980	1,711,700	778,200	45.5	83.4
1981	2,644,600	1,111,900	42.0	72.5
1982	4,911,700	1,641,900	33.4	50.2
1983	8,393,200	3,025,800	36.1	56.4
1984	13,342,400	5,277,000	39.6	65.4
1985	20,124,000	7,103,400	35.3	54.6
1986	40,832,600	12,446,700	30.5	43.8
1987	105,609,000	28,360,500	26.9	36.7
1988	216,188,500	56,335,700	26.1	35.2
1989	267,995,100	61,555,900	23.0	29.8

TABLE 4 (Continued)
Part 1
WILKIE METHOD FOR CALCULATING GROSS ACTUAL DECENTRALIZED EXPENDITURE AS A RESIDUAL OF TOTAL PUBLIC SECTOR EXPENDITURE, 1970-1989

(a) SPP's revised view of Central expenditure here slightly differs from original SSP data in Table 7, Column A. The data in Table 7 has the advantage of allowing us to analyze policy categories in detail.
(b) Data beginning in 1979 are rounded.
(c) SPP estimate.
(1) Includes transfers to off-budget Decentral units.
(2) Note that Col. D + col. G = SPP's "Gasto Total Ejercido del Sector Parestatal Controlado Presupuestalmente por Clasificación Administrativa"--e.g., 1979: 71.7 + 515.6 = 587.3 in CSG, 1989, p. 32.

SOURCE: 1970-1979: Cols. A, B, C, D, F, I: SPP, 1988, p. 13 (Cols. A, B, F), p. 65 (Col. D), p. 125 (Col. C), p. 127 (Col. I);
Cols. E, G, H, I: Calculated.
1980-1989: CSG, 1989, pp. 31-32.

TABLE 4 (Continued)
Part 2
VIEW'S OF MEXICO'S DECENTRAL (PARASTATE) GROSS ACTUAL EXPENDITURE AND PAYMENT ON ITS DEBT, 1970-1989
(Millions of Current Pesos and Percent)

	Decentral Outlay				Decentral Debt Share	
	SPP (1)					
Year	A. Original View (2)	B. Revised View (3)	C. Wilkie Residual View (4)	D. Debt	E. SPP View (D/B)	F. Wilkie Residual View (D/C)
1970	56,582	57,016	50,051	13,925	24.4	27.8
1971	65,545	65,733	58,496	13,912	21.2	23.8
1972	71,538	73,530	63,061	14,396	19.6	22.8
1973	101,792	107,396	92,073	21,190	19.7	23.0
1974	140,688	147,007	124,280	24,681	16.8	19.9
1975	200,234	215,475	176,169	35,297	16.4	20.0
1976	245,065	243,106	213,936	50,100	20.6	23.4
1977	375,461	359,071	317,325	107,785	30.0	34.0
1978	495,363	480,078	427,191	140,461	29.3	32.9
1979	614,778	587,300	515,600	136,400	23.2	26.5
1980	* *	905,500	778,200	249,100	27.5	32.0
1981	* *	1,304,900	1,111,900	289,800	22.2	26.1
1982	* *	1,990,200	1,641,900	507,100	25.5	30.9
1983	* *	3,734,300	3,025,800	1,161,900	31.1	38.4
1984	* *	6,329,700	5,277,000	1,921,900	30.4	36.4
1985	* *	8,666,200	7,103,400	2,393,100	27.6	33.7
1986	* *	14,706,700	12,446,700	3,929,800	26.7	31.6
1987	* *	32,524,200	28,360,500	7,785,900	23.9	27.5
1988	* *	62,128,500	56,335,700	14,672,200	23.6	26.0
1989	* *	70,460,500	61,555,900	15,544,700	22.1	25.3

(1) SPP and its predecessor agency--Treasury.
(2) Including virtual and compensatory debt transactions.
(3) Including virtual and compensatory debt transactions.
(4) Calculated by subtracting Central subsector data (except transfers) from public sector--see Part 1.

SOURCE: A. quoted in Wilkie, 1985, p. 874 (1981 corrected here).
B. From Part 1, Col. D + Col. G.
C. From Part 1, Col. G.
D. From Part 1, Col. I.
E. Calculated.
F. Calculated.

TABLE 5

"COSTS" TO THE CENTRAL SUBSECTOR OF COVERING DEFICITS OF THE DECENTRAL SECTOR, 1980-1989
(Billions of Current Pesos and Percent)

	MMP				Percent	MMP
Year	A. Central Gross Actual(2) Exp.	B. Central Transfers to Decentral	C. Decentral Financial Deficits (3)	D. Central Costs(1) (B+C)	E. Central Costs as Ratio to Central Gross (D/A)	F. PEMEX Deficit (3)
1980	933.5	128.4	117.0	254.4	27.3	59.4
1981	1,532.7	193.5	326.9	520.4	34.0	224.2
1982	3,269.8	348.3	82.7	431.0	13.2	9.7
1983	5,367.5	717.0	30.8	747.8	13.9	-177
1984	8,065.3	1,060.3	-255.5	804.8	10.0	-542.3
1985	13,020.5	1,561.9	-245.5	1,316.4	10.1	-447.7
1986	28,574.6	2,280.1	122.1	2,402.2	8.4	-12.5
1987	77,754.9	4,165.4	-28.4	4,137.0	5.3	-271.7
1988	169,896.5	5,804.6	-1,176.4	4,628.2	2.7	-603.2
1989	207,806.2	8,904.9	1,795.8	10,700.7	5.1	1,891.1

(1) Direct cost (col. A) and indirect cost (col. B) = A. Central subsector transfers to Decentral subsector + B. Decentral financial losses (current savings less deficit in capital account), losses for which Central subsector is ultimately responsible. Preliminary data for 1989 are based on SPP preliminary figures.
(2) Gross includes debt amortization and ADEFAS pending payment (excluded in Net); gross includes debt interest, commissions, expenses and ADEFAS paid (also included in Net); gross includes revenue sharing and fiscal incentives (also included in Net); gross includes transfers (excluded in Net). See, SPP, CP, 1987, pp. 119-120.
(3) Minus = Surplus (Losses or gains are calculated by deducting current savings from capital account deficit).

SOURCE: Adapted and calculated from CSG, 1989, p. 39.

TABLE 6

MACRO ECONOMIC DATA FOR MEXICO:
GDP, PUBLIC SECTOR, CENTRAL SUBSECTOR,
AND DECENTRAL SUBSECTOR, 1980-1989
(Billions of Current Pesos and Percent)

	MMP			Percent			
		Actual Expenditure				F.	
Year	A. GDP	B. Public Sector	C. Central Gross	D. Public in GDP (B/A)	E. Central in GDP (C/A)	Central in Public (C/B)	G. Decentral in Public (100 - F)
1980	4,470.1 (a)	1,711.7	933.5	38.3	20.9	54.5	45.5
1981	6,127.6	2,644.6	1,532.7	43.2	25.0	58.0	42.0
1982	9,797.8	4,911.7	3,269.8	50.1	33.4	66.6	33.4
1983	17,877.8	8,393.2	5,367.5	46.9	30.0	64.0	36.0
1984	29,471.6	13,384.4	8,065.3	45.4	27.4	60.3	39.7
1985	47,391.7	20,124.0	13,020.5	42.5	27.5	64.7	35.3
1986	79,535.6	40,832.6	28,574.6	51.3	35.9	70.0	30.0
1987	193,462.4	105,609.0	77,754.9	54.6	40.2	73.6	26.4
1988	395,882.9	216,188.5	160,896.5	54.6	40.6	74.4	25.6
1989	494,054.8	267,995.1	207,806.2	54.2	42.1	77.5	22.5

(a) Revised GDP series begins 1980; data for 1980 are MMP193 higher than unrevised series for 1980.

SOURCE: Adapted and calculated from CSG, 1989, p. 31. Except col. A for 1979 from IMF-IFS-Y, 1988; 1980-85 from GSG, 1989, p. 23; 1986-89 from SPP/DGPES/DAM.

TABLE 7
WILKIE VIEW OF GROSS ACTUAL CENTRAL GOVERNMENT EXPENDITURE IN MEXICO, CURRENT AND DEFLATED TERMS, 1960-89

Year	A. Actual Thousands of Current Pesos	B. DGE-BDM Composite Price Index (1) (1950=100)	C. Actual Thousands of Pesos of 1950 (A/B)	D. Pop. (000)	E. Actual Per Capita Pesos of 1950 (C/D)
1960	20,150,330	212.3	9,491,441	34,923	271.8
1961	20,362,040	214.2	9,506,088	36,075	263.5
1962	20,219,159	217.2	9,309,005	37,265	249.8
1963	20,294,906	221.2	9,174,912	39,238	233.8
1964	28,285,590	228.4	12,384,234	39,781	311.3
1965	36,715,603	244.6 (a)	15,010,467	41,557	361.2
1966	32,495,967	255.4	12,723,558	43,012	295.8
1967	40,852,939	256.9	15,902,273	44,517	357.2
1968	41,124,294	263.1	15,630,670	46,075	339.2
1969	49,816,139	273.8	18,194,353	47,688	381.5
1970	52,656,003	303.1	17,372,485	49,357	352.0
1971 (b)	55,786,000	320.0	17,433,125	51,060	341.4
1972	77,230,000	340.0	22,714,706	52,796	430.2
1973	102,241,000	384.6	26,583,723	53,565	496.3
1974	135,795,000	472.3	28,751,853	56,366	510.1
1975	200,416,000	546.2	36,692,787	58,198	630.5
1976	274,963,000	652.3	42,152,844	60,060	701.8
1977	355,132,000	850.8	41,740,950	61,952	673.8
1978	442,471,000	993.8	44,523,143	63,873	697.1
1979	652,000,000 (c)	1,195.4	54,542,413	65,821	828.6
1980	933,500,000 (d)	1,538.5	60,675,983	67,796	895.0
1981	1,532,700,000	1,956.9	78,322,858	69,762	1,122.7
1982	3,269,800,000	3,155.4	103,625,531	71,715	1,445.0
1983	5,367,500,000	6,063.1	88,527,321	74,633	1,186.2
1984	8,065,300,000	9,809.2	82,221,792	76,293	1,077.7
1985	13,020,500,000	15,135.4	86,026,798	77,938	1,103.8
1986	28,574,600,000	26,335.6	108,501,800	79,563	1,363.7
1987	77,754,900,000	63,114.6	123,196,376	81,163	1,517.9
1988	160,896,500,000	127,394.7	126,297,640	82,734	1,526.6
1989 (e)	207,806,200,000	154,530.9	134,475,500	84,275	1,595.7

TABLE 7 (Continued)
WILKIE VIEW OF GROSS ACTUAL CENTRAL GOVERNMENT EXPENDITURE IN MEXICO, CURRENT AND DEFLATED TERMS, 1960-89

1. Linkage of the two similar indexes at the year when the rate of inflation in the DGE wholesale price index was permanently surpassed by BDM's GDP deflator index.

(a) The choice of 1965 as the linkage year means that since 1963 when the indexes were nearly the same, the BDM gives the consistently higher result for the years of overlap up through DGE's 1976 suppression of its index. On price indexes for Mexico, see Wilkie, 1985, p. 862-863.
(b) Data are rounded beginning in 1971.
(c) If virtual and compensatory debt transactions (administrative expenditures) are excluded, the total is 626,000,000 or 96 percent of the 652 billion used here.
(d) Beginning in 1980 data exclude virtual and compensatory debt transactions.
(e) [illegible]

Source for budgets:
1960-63: Wilkie, 1970, pp. 22-23.
1964-76: Wilkie, 1978, p. 350, except data in pesos of 1950 revised here with DGE-BDM composite Index of Prices.
1977-79: México, SPP, CP, yearly.
1980-89: GSG, 1989, p. 39.

Source for price index:
1960-82: Wilkie, 1985, p. 872.
1983-89: SPP/DGPES/DAM (base recalculated here).

Source for population:
1960-63: Wilkie, 1967, p. 24.
1964-82: NAFINSA, EMC, 1981, p. 3.
1983-89: Ibid, 1988, p. 16.

TABLE 8
WILKIE VIEW OF MEXICO'S DEBT PAYMENTS,(1)
COMPARED TO GDP, GROSS ACTUAL OUTLAY OF PUBLIC SECTOR
AND CENTRAL SUBSECTOR, 1980-1989
(Billions of Pesos and Percent)

Category	1980	1981	1982	1983
Macro Data				
A. GDP (MMP)	4,470.1	6,127.6	9,797.8	17,878.7
B. Public Sector (MMP)	1,711.7	2,644.6	4,911.7	8,393.2
C. Central (MMP)	933.5	1,532.7	3,269.8	5,367.5
Central Payments				
D. ON Public Debt (MMP)	157.3	307.2	1,418.0	2,228.3
D/C	16.9	20.0	43.4	41.5
E. On ADEFAS (MMP)	38.1	66.1	92.1	171.1
E/C	4.1	4.3	2.8	3.2
F. Total Central (MMP)	195.4	373.3	1,510.1	2,399.4
F/C	20.9	24.4	46.2	44.7
F/A	4.4	6.1	15.4	13.4
Public Sector Payments				
G. Central+Decentral (MMP)	444.5	663.0	2,017.2	3,561.3
G/A	9.9	10.8	20.6	19.9
G/B	26.0	25.1	41.1	42.4

TABLE 8 (Continued)
WILKIE VIEW OF MEXICO'S DEBT PAYMENTS,(1)
COMPARED TO GDP, GROSS ACTUAL OUTLAY OF PUBLIC SECTOR
AND CENTRAL SUBSECTOR, 1980-1989
(Billions of Pesos and Percent)

Category	1984	1985	1986
Macro Data			
A. GDP (MMP)	29,471.6	47,391.7	79,535.6
B. Public Sector (MMP)	13,384.4	20,124.0	40,832.6
C. Central (MMP)	8,065.3	13,020.5	28,574.6
Central Payments			
D. ON Public Debt (MMP)	3,197.2	5,446.1	17,159.7
D/C	39.6	41.8	60.1
E. On ADEFAS (MMP)	165.3	344.7	446.5
E/C	2.0	2.6	1.6
F. Total Central (MMP)	3,362.5	5,790.8	17,626.2
F/C	41.7	44.5	61.7
F/A	11.4	12.2	22.2
Public Sector Payments			
G. Central+Decentral (MMP)	5,284.3	8,183.9	21,556.0
G/A	17.9	17.3	27.1
G/B	39.5	40.7	52.8

TABLE 8 (Continued)
WILKIE VIEW OF MEXICO'S DEBT PAYMENTS,(1)
COMPARED TO GDP, GROSS ACTUAL OUTLAY OF PUBLIC SECTOR
AND CENTRAL SUBSECTOR, 1980-1989
(Billions of Pesos and Percent)

Category	1987	1988	1989 (A)
Macro Data			
A. GDP (MMP)	193,462.4	395,882.9	494,054.8
B. Public Sector (MMP)	105,609.0	216,188.5	267,995.1
C. Central (MMP)	77,754.9	160,846.5	207,806.2
Central Payments			
D. ON Public Debt (MMP)	52,898.4	114,234.8	145,703.3
D/C	68.0	71.0	70.1
E. On ADEFAS (MMP)	488.3	902.0	2,128.8
E/C	0.6	0.6	1.0
F. Total Central (MMP)	53,386.7	115,136.8	147,832.1
F/C	68.7	71.6	71.1
F/A	27.6	29.1	29.9
Public Sector Payments			
G. Central+Decentral (MMP)	61,172.6	129,809.0	163,376.8
G/A	31.6	32.8	33.1
G/B	57.9	60.0	61.0

(1) Includes amortization, interest, commissions, and expenses
(A) Based on SHCP estimates.
SOURCE: Rows. A, B, C: Table 6, above.
Rows D, E, F, I: CSG, 1989, p. 31.

TABLE 9

SOCIAL SHARES OF GDP AND CENTRAL ACTUAL GROSS OUTLAY, WITH TRANSFERS (WT) AND TRANSFERS DEDUCTED (TD), 1980-1989
(Billions of Current Pesos and Percent)

Category	1980	1981	1982	1983	1984
A. GDP MMP	4,470.1	6,127.6	9,797.8	17,878.7	29,471.6
B. Central MMP WT	933.5	1,532.7	3,269.8	5,367.5	8,065.3
C. Education(1) MMP WT	140.0	220.5	368.6	486.9	826.7
C/A	3.1	3.6	3.8	2.7	2.8
C/B	15.0	14.4	11.3	9.1	10.3
D. Education MMP TD	82.8	139.4	234.7	298.5	531.0
D/A	1.9	2.3	2.4	1.7	1.8
E. Health(2) MMP WT	19.6	28.5	45.3	60.7	102.6
E/A	0.4	0.5	0.5	0.3	0.3
E/B	2.1	1.9	1.4	1.1	1.3
F. Health MMP TD	6.9	20.8	38.0	50.6	87.0
F/A	0.2	0.3	0.4	0.3	0.3
G. Labor(3) MMP WT	26.0	7.0	8.1	6.0	11.3
G/A	0.6	0.1	0.1	0.0	0.0
G/B	2.8	0.5	0.2	0.1	0.1
H. Labor MMP TD	1.3	6.0	6.8	5.0	8.8
H/A	0.0	0.1	0.1	0.0	0.0
I. SOC. SECURITY MMP	* *	* *	35.2	38.8	78.3
I/A	* *	* *	0.4	0.2	0.3
I/B	* *	* *	1.1	0.7	1.0
J. JWW-Social(4) MMP WT (C+E+G+I)	185.6	256.0	457.2	592.4	1,018.9
J/A	4.2	4.2	4.7	3.3	3.5
J/B	19.9	16.7	14.0	11.0	12.6
K. SPP-Social(5) MMP TD (D+F+H)	91.0	166.2	279.5	354.1	626.8
K/A	2.0	2.7	2.9	2.0	2.1

TABLE 9 (Continued)

SOCIAL SHARES OF GDP AND CENTRAL ACTUAL GROSS OUTLAY, WITH TRANSFERS (WT) AND TRANSFERS DEDUCTED (TD), 1980-1989
(Billions of Current Pesos and Percent)

Category	1985	1986	1987	1988	1989
A. GDP MMP	47,391.7	79,535.6	193,462.4	395,882.9	494,054.8
B. Central MMP WT	13,020.5	28,574.6	77,754.9	160,846.5	207,806.2
C. Education(1) MMP WT	1,332.0	2,112.7	5,034.3	10,120.1	13,300.8
C/A	2.8	2.7	2.6	2.6	2.7
C/B	10.2	7.4	6.5	6.3	6.4
D. Education MMP TD	846.5	1,310.9	3,217.3	6,358.8	8,507.7
D/A	1.8	1.6	1.7	1.6	1.7
E. Health(2) MMP WT	169.6	308.8	737.4	1,527.8	1,829.0
E/A	0.4	0.4	0.4	0.4	0.4
E/B	1.3	1.1	0.9	0.9	0.9
F. Health MMP TD	143.3	233.2	563.9	1,153.3	1,391.5
F/A	0.3	0.3	0.3	0.3	0.3
G. Labor(3) MMP WT	18.0	27.9	64.8	130.8	212.1
G/A	0.0	0.0	0.0	0.0	0.0
G/B	0.1	0.1	0.1	0.1	0.1
H. Labor MMP TD	15.0	21.4	49.5	105.5	122.7
H/A	0.0	0.0	0.0	0.0	0.0
I. SOC. SECURITY MMP	138.5	238.2	833.5	1,849.2	2,482.4
I/A do calc	0.3	0.3	0.4	0.5	0.5
I/B	1.1	0.8	1.1	1.1	1.2
J. JWW-Social(4) MMP WT (C+E+G+I)	1,658.1	2,687.6	6,670.0	13,627.9	17,824.3
J/A	3.5	3.4	3.4	3.4	3.6
J/B	12.7	9.4	8.6	8.5	8.6
K. SPP-Social(5) MMP TD (D+F+H)	1,004.8	1,565.5	3,830.7	7,617.6	10,021.9
K/A	2.1	2.0	2.0	1.9	2.0

(1) Secretary of Public Education.
(2) Secretary of Health.
(3) Secretary of Labor.
(4) Wilkie view of gross expenditure on social functions, includes central power over transfers.
(5) Using here SPP's method of calculating programmable expenditure on social functions, excludes central power over transfers.

SOURCE: Rows A and B: Table 6, above.
Rows C, E, G, and I: CSG, 1989, p. 31.
Rows D, F, and H: CSG, 1989, p. 34.
Rows J and K; calculated.

TABLE 10

POLICY ANALYSIS OF GROSS ACTUAL BUDGETARY FUCTIONS FOR 1970 (a,b)

BY SHCP AND WILKIE

(Percent)

Category	A. SHCP	B. Wilkie	C. Wilkie (-) = less than SHCP (+) = greater than SHCP (A Minus B)
Total	100.0	100.0	
Economic	41.7	40.1	-1.6
Social	22.3	22.0	-0.3
Administrative	36.0	37.9	1.9

(a) For similarity in the SHCP and Wilkie series for 1954 through 1976, see Wilkie, 1978, pp. 48 and 360.

(b) The year 1970 provides the overlap for transition from Wilkie to SHCP functional data in Table 11.

SOURCE: Col. A, Wilkie, 1978, pp. 354-355.
Col. B, SHCP, CP, 1970 (also Banco Nacional de Comercio Exterior, BNCE, 1973, p. 217).

TABLE 11
SHCP POLICY ANALYSIS OF GROSS ACTUAL CENTRAL EXPENDITURE, 1971-1979
(Economic + Social + Administrative = 100.0 Percent)

Category	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Economic	40.2	46.6	45.5	44.3	46.7	48.7	32.8	26.8	28.4
Commun & Tran	12.3	11.9	11.8	9.7	7.8	7.9	6.9	5.7	6.2
Nat Resources	9.9	18.5	15.3	18.1	21.0	12.2	12.4	10.3	10.0
Ind & Commerce	18.0	16.2	18.4	16.5	17.9	28.6	13.5	10.8	12.2
Social	24.3	23.6	23.6	23.5	23.1	22.9	34.4	21.3	19.3
Education	15.9	14.4	14.0	14.4	14.8	14.4	16.1	16.4	14.7
Health	3.6	4.4	4.2	3.5	3.4	3.2	3.5	3.3	3.0
Soc Sec	4.8	4.8	5.4	5.6	4.9	5.3	14.8	1.6	1.6
Administrative	35.5	29.8	30.9	32.2	30.2	28.4	32.8	51.9	52.3
Military	4.8	4.2	4.0	4.0	3.4	3.0	3.0	2.8	2.2
General Adm	12.8	11.2	14.6	14.8	15.0	14.1	11.8	22.0	23.1
Debt	17.9	14.4	12.3	13.4	11.8	11.3	18.0	27.1	27.0

SOURCE: 1971-76, Wilkie, 1978, p. 358, based on SHCP, CP, yearly.
1977-79, SHCP, CP, yearly.

TABLE 12
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989
(Economic + Social + Administrative = 100.0 Percent)

Category	1980	1981	1982	1983
TOTAL (1)	100.0	100.0	100.0	100.0
ECONOMIC	32.9	30.5	23.8	23.8
Ag & Irr.	9.8	8.6	5.3	4.1
Ag Reform	0.7	0.6	0.3	0.4
Commun & Tran	4.3	4.3	3.3	4.3
Ind & Commerce	4.4	4.1	3.0	2.9
SEMIP (2)	8.7	7.7	7.4	9.4
Fishing	0.7	0.8	0.4	0.4
Urban & Ecology	3.9	4.0	1.9	0.5
Regional Dev (4)	* *	* *	1.8	1.6
Tourism	0.5	0.4	0.3	0.2
SOCIAL	17.4	16.7	14.0	11.0
Education	15.0	14.4	11.3	9.1
Health	2.1	1.9	1.4	1.1
Labor	0.3	0.5	0.2	0.1
Soc Sec	* *	* *	1.1	0.7
ADMINISTRATIVE	49.7	52.8	62.2	65.2
Legislative	0.1	0.1	0.0	0.1
Presidency	0.5	0.5	0.4	0.1
Judicial	0.1	0.1	0.1	0.1
Attorney Gen	0.1	0.1	0.1	0.1
Interior	0.5	0.6	0.3	0.2
Foreign Rela	0.3	0.2	0.2	0.3
Treasury	7.3	6.7	3.9	4.8
SPP	0.8	0.8	0.5	0.4
Controller	* *	* *	* *	0.1
Defense	1.3	1.5	1.1	1.2
Navy	0.5	0.5	0.3	0.4
Other	5.6	5.8	1.5	1.8
Rev Sharing/ Fiscal Incentives	11.5	11.6	7.7	10.9
Debt (3)	20.9	24.4	46.2	44.7

TABLE 12 (Continued)
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989
(Economic + Social + Administrative = 100.0 Percent)

Category	1984	1985	1986(a)
TOTAL (1)	100.0	100.0	100.0
ECONOMIC	26.1	23.4	16.1
Ag & Irr.	4.2	3.8	2.5
Ag Reform	0.4	0.3	0.2
Commun & Tran	5.0	4.4	2.9
Ind & Commerce	4.9	4.0	2.7
SEMIP (2)	7.4	7.3	4.7
Fishing	0.4	0.3	0.2
Urban & Ecology	0.8	0.6	0.5
Regional Dev (4)	2.8	2.5	2.1
Tourism	0.2	0.2	0.1
SOCIAL	12.7	12.7	9.4
Education	10.3	10.2	7.4
Health	1.3	1.3	1.1
Labor	0.1	0.1	0.1
Soc Sec	1.0	1.1	0.8
ADMINISTRATIVE	61.2	63.9	74.5
Legislative	0.1	0.1	0.1
Presidency	0.1	0.1	0.1
Judicial	0.1	0.1	0.1
Attorney Gen	0.1	0.1	0.1
Interior	0.4	0.3	0.2
Foreign Rela	0.3	0.2	0.2
Treasury	3.6	3.1	2.3
SPP	0.5	0.5	0.3
Controller	0.1	0.1	0.0
Defense	1.7	1.7	1.2
Navy	0.4	0.6	0.4
Other	0.8	2.0	0.6
Rev Sharing/ Fiscal Incentives	11.4	10.5	7.3
Debt (3)	41.7	44.5	61.7

TABLE 12 (Continued)
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989
(Economic + Social + Administrative = 100.0 Percent)

Category	1987	1988	1989
TOTAL (1)	100.0	100.0	100.0
ECONOMIC	11.9	8.1	7.8
Ag & Irr.	1.9	1.4	1.5
Ag Reform	0.2	0.1	0.1
Commun & Tran	2.5	1.5	1.2
Ind & Commerce	1.9	1.4	1.9
SEMIP (2)	3.2	2.2	1.7
Fishing	0.1	0.1	0.1
Urban & Ecology	0.4	0.3	0.2
Regional Dev (4)	1.6	1.1	1.1
Tourism	0.1	0.1	0.1
SOCIAL	8.6	8.4	8.6
Education	6.5	6.3	6.4
Health	0.9	0.9	0.9
Labor	0.1	0.1	0.1
Soc Sec	1.1	1.1	1.2
ADMINISTRATIVE	79.5	83.5	83.6
Legislative	0.1	0.1	0.1
Presidency	0.1	0.1	0.1
Judicial	0.1	0.1	0.1
Attorney Gen	0.1	0.1	0.1
Interior	0.2	0.2	0.2
Foreign Rela	0.2	0.2	0.2
Treasury	1.4	1.2	1.1
SPP	0.3	0.3	0.3
Controller	0.0	0.0	0.0
Defense	1.0	0.9	0.9
Navy	0.3	0.4	0.3
Other	0.4	0.8	2.3
Rev Sharing/ Fiscal Incentives	6.7	7.6	6.8
Debt (3)	68.7	71.6	71.1

TABLE 12 (Continued)
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989

(a) Beginning in 1986 data are rounded.
(b) SEP estimate.
(1) Total = Economic + Social + Administrative. For definition of Sub-Categories see Chart 3.
(2) SEMIP = Secretary of Energy, Mines, and Parastate Industry.
(3) Includes amortization, interest, commissions, and expenses as well as ADEFAS.
(4) Fuma.
SOURCE: Calculated from Appendix E.

TABLE 13
ECONOMIC, SOCIAL AND ADMINISTRATIVE OUTLAY (1)
AS SHARES OF MEXICO'S GROSS ACTUAL CENTRAL EXPENDITURE,
WILKIE POLICY VIEW, 1959-1989
(A + B + C = 100.0 Percent)

Year	A. Economic Share	B. Social Share	C. Admnistrative Share	D. Admnistrative Debt-Subtotal (3)
1959	44.8	17.4	37.8	22.0
1960	42.1	16.4	41.5	27.3
1961	31.8	18.7	49.5	36.2
1962	35.1	20.9	44.0	27.2
1963	41.3	22.6	36.1	17.1
1964	39.4	21.1	39.5	24.4
1965	42.5	18.2	39.3	26.9
1966	40.7	22.4	36.9	21.5
1967	37.6	20.3	42.1	28.9
1968	40.4	21.6	38.0	21.7
1969	42.3	21.3	36.4	20.4
1970	40.1	22.0	37.9	21.3
1971	40.2	24.3	35.5	17.9
1972	46.6	23.6	29.8	14.4
1973	45.5	23.6	30.9	12.3
1974	44.3	23.5	32.2	13.4
1975	46.7	23.1	30.2	11.8
1976	48.7	22.9	28.4	11.3
1977	32.8	34.4	32.8	18.0
1978	26.8	21.3	51.9	27.1
1979	28.4	19.3	52.3	27.0
1980	32.9	17.4	49.7	20.9
1981	30.5	16.7	52.8	24.4
1982	23.8	14.0	62.2	46.2
1983	23.8	11.0	65.2	44.7
1984	26.1	12.7	61.2	41.7
1985	23.4	12.7	63.9	44.5
1986	16.1	9.4	74.5	61.7
1987	11.9	8.6	79.5	68.7
1988	8.1	8.4	83.5	71.6
1989	7.8	8.6	83.6	71.1

TABLE 13 (Continued)
ECONOMIC, SOCIAL AND ADMINISTRATIVE OUTLAY (1)
AS SHARES OF MEXICO'S GROSS ACTUAL CENTRAL EXPENDITURE,
WILKIE POLICY VIEW, 1959-1989

(1) For definition of sub-categories, see Chart 3; for absolute totals, see Table 7.
(2) Includes Secretariats of Education, Health, Labor, and category for Central payments to social security.
(3) Included in Administrative share; debt = amortization, interest, commissions, and costs as well as ADEFAS.

SOURCE: 1959-70, Wilkie, 1978, pp. 66, 131-132, 142, 162-163, 192, 354-355
1971-79, Table 11;
1980-89, Table 12.

TABLE 14

AVERAGE ECONOMIC, SOCIAL AND ADMINISTRATIVE EXPENDITURE

BY MEXICAN PRESIDENT,

WILKIE POLICY VIEW,

1935-1989

(Economic + Administrative + Social = 100.0 percent

of Central Gross Actual Expenditure) (1)

Six-Year Term and President		A. Econ Share	B. Social Share	C. Administrative Share	D. Administrative Debt (2)
1935-1940	Lázaro Cárdenas	37.6	18.3	44.1	10.4
1941-1946	Manuel Avila Camacho	39.2	16.5	44.3	17.0
1947-1952	Miguel Alemán	51.9	13.3	34.8	15.4
1953-1958	Adlolfo Ruiz Cortines	52.7	14.4	32.9	16.2
1959-1964	Adolfo López Mateos	39.1	19.5	41.4	25.7
1965-1970	Gustavo Díaz Ordaz	40.6	21.0	38.4	23.5
1971-1976	Luis Echeverría Alvarez	45.3	23.5	31.2	13.5
1977-1982	José López Portillo	29.2	20.5	50.3	27.3
1983-1988	Miguel de la Madrid	18.2	10.5	71.3	55.5
1989-	Carlos Salinas de Gortari (3)	7.8	8.6	83.6	71.6

(1) A + B + C = 100.0 percent.

(2) Included in Administrative share.

(3) Figures for Salinas de Gortari are for the first year only.

SOURCE: Calculated from sources for and yearly data in Table 13.

TABLE 15
SPP SUMMARY VIEW (1) OF PUBLIC SECTOR PROGRAMMABLE
ACTUAL EXPENDITURE IN THREE MAJOR FUNCTIONS,
1970-1989

(Yearly Totals = 100.0 Percent)

Year	Econ.	Social (2)	Adm.
1970	55.9	26.3	17.8
1971	58.5	28.8	12.7
1972	60.0	28.1	11.9
1973	62.9	25.7	11.4
1974	62.2	27.3	10.5
1975	65.6	24.9	9.5
1976	61.1	29.3	9.6
1977	60.2	30.0	9.8
1978	62.5	28.8	8.7
1979	65.3	27.8	6.9
1980	67.1	25.6	7.3
1981	69.2	24.7	6.1
1982	66.4	27.6	6.0
1983	69.8	24.1	6.1
1984	70.0	23.3	6.7
1985	67.5	25.3	7.2
1986	67.0	26.0	7.0
1987	66.8	26.4	6.8
1988	63.9	28.5	7.6
1989(a)	60.0	31.4	8.6

1. Implicit division for Economic is here made explicit by adding together all categories in source except Social and Administrative.

2. The subcategory for Regional Development and Ecology is not included here under Social as is SPP's frequent practice beginning in 1989.

SOURCE: Calculated from Table 3. Cf. Table 30 which gives Public Sector investment.

TABLE 16
MEXICO'S PLANNED EXPENDITURES FOR 1990
(Billions of Current Pesos and Percent)

Terms	Category	Subtotal	Total
	1-A. SPP View of Public Sector Impact		
MMP	Total Public Programmable		110,841.5
Percent	Total by Sector		100.0
	Subtotal Social Sector		36.8
	Education	16.9	
	Health and Labor	17.9	
	Solidarity & Regional (1)	1.8	
	Urban Develop & Ecology (1)	1.2	
	Subtotal Non-Social Sectors		63.2
	1-B. Implicit SPP View of Central Outlay		
MMP	Central Programmable		56,285.0
Percent	Total		100.0
	Subtotal Secretariats		51.3
	Education	20.4	
	Health	3.6	
	Labor	0.3	
	Regional Development, Solidarity, Urban & Ecol	4.3	
	Social Security Category	3.0	
	General Category	3.5	
	Other Categories	16.2	
	Subtotal Transfers		48.7
	To On-Budget Parastate	18.9	
	To Off-Budget Parastate (2)	29.8	
	2-A. Wilkie View of Central Components		
MMP	Central Gross Projected Outlay		130,019.3
Percent	Total		100.0
	Subtotal Secretariats		43.3
	Subtotal Revenue Sharing and Fiscal Incentives		14.2
	Subtotal Debt Including ADEFAS		42.5
	2-B. Wilkie View of Outlay by Secretariat Including Transfers		
MMP	Central Gross Projected Outlay (from 2-A)		130,019.3
Percent	Subtotal Social By Secretariat		16.5
	Education	12.2	
	Health	1.8	
	Labor	0.2	
	Social Security Category	2.3	
	Subtotal General Category		7.2
	Other Subtotals		76.3

(1) Counted as "Social" outlay by SPP but as "Economic by Wilkie.
(2) "Subsidados."
SOURCE: SPP, PE, 1990:
1-A, According to SPP presentation on p. 26;
1-B, Adapted from SPP data on p. 159;
2-A, Adapted from SPP data on pp. 159, 174, 181;
2-B, Adapted from non-tabular SPP data [pp. 185-187], according to scheme in Chart 3.

TABLE 17

PROJECTED GROWTH OF GDP, 1990-1994

(Real Percent)

Year	Amount[1]
1990	3.5
1991	4.5
1992	5.0
1993	5.5
1994	6.0

1. After a 1 percent gain from a rate of 3.5 percent in 1990 to 4.5 percent in 1991 (presumably as a result of the debt "dividend), growth is calculated to change in what appear to be arbitrary .5 percent increments.

SOURCE: SPP/DGPES/DAM, April 5, 1990.

TABLE 18
CONSISTENT ANALYSIS OF CENTRAL PERCENTAGE AND REAL PESOS PER CAPITA ACTUALLY SPENT ON EDUCATION AND HEALTH, 1900-1989

Year	Education (1)		Health	
	Percent	Pesos Per Capita	Percent	Pesos Per Capita
1900-1901	3.7	1.1	0.4	0.1
1910-1911	7.2	2.5	2.0	0.7
1911-1912	7.8	2.6	2.1	0.7
1912-1913	6.9	2.7	2.0	0.8
1913-1916 (a)	- -	- -	- -	- -
1917	1.1	- -	0.6	- -
1918	1.3	0.2	0.8	0.1
1919	1.2	0.1	0.9	0.1
1920	1.3	0.3	1.0	0.3
1921	4.0	1.9	1.1	0.5
1922	8.9	5.1	1.3	0.7
1923	9.3	5.0	1.2	0.6
1924	9.3	6.0	1.2	0.8
1925	7.1	4.7	1.6	1.1
1926	7.7	5.5	2.0	1.4
1927	8.0	5.5	2.3	1.6
1928	9.3	6.1	2.4	1.6
1929	10.0	6.2	2.9	1.8
1930	11.5	6.9	3.1	1.9
1931	13.8	7.5	3.2	1.7
1932	12.9	7.1	2.9	1.6
1933	12.7	7.5	2.6	1.5
1934	11.8	7.1	2.7	1.6
1935	12.6	8.4	3.5	2.3
1936	12.8	10.7	3.6	3.0
1937	13.6	11.1	3.3	2.7
1938	13.0	10.5	6.1	4.9
1939	11.7	10.4	5.8	5.2

TABLE 18 (Continued)
CONSISTENT ANALYSIS OF CENTRAL PERCENTAGE AND REAL PESOS PER CAPITA ACTUALLY SPENT ON EDUCATION AND HEALTH, 1900-1989

	Education (1)		Health	
Year	Percent	Pesos Per Capita	Percent	Pesos Per Capita
1940	12.4	11.3	6.4	5.8
1941	11.2	10.5	6.5	6.1
1942	10.2	10.4	6.4	6.5
1943	8.8	9.4	5.8	6.2
1944	8.9	9.8	4.7	5.2
1945	10.8	11.4	4.9	5.2
1946	11.2	11.1	3.4	3.4
1947	10.1	11.5	4.9	5.6
1948	8.5	11.5	4.1	5.5
1949	7.5	12.6	3.3	5.5
1950	9.1	12.2	3.8	5.1
1951	7.8	11.8	3.1	4.7
1952	7.1	12.6	2.5	4.5
1953	9.3	13.4	3.2	4.6
1954	8.7	16.3	2.7	5.0
1955	8.2	14.4	2.8	4.9
1956	8.8	16.4	2.9	5.4
1957	9.1	17.0	3.3	6.2
1958	9.6	19.6	3.3	6.7
1959	10.6	22.1	3.4	7.1
1960	9.7	26.4	3.5	9.5
1961	10.8	28.5	3.9	10.3
1962	12.4	30.1	4.0	10.0
1963	14.2	33.2	3.3	7.7
1964	13.2	41.1	3.2	10.0
1965	11.1	40.1	2.7	9.8
1966	14.5	42.9	3.8	11.2
1967	12.9	46.1	3.1	11.1
1968	14.1	47.8	3.3	11.2
1969	14.2	54.2	2.9	11.1
1970	14.8	52.1	3.1	10.9
1971	15.9	54.3	3.6	12.3
1972	14.4	61.9	4.4	18.9
1973	14.0	69.5	4.2	20.8
1974	14.4	73.5	3.5	17.9

TABLE 18 (Continued)
CONSISTENT ANALYSIS OF CENTRAL PERCENTAGE AND REAL PESOS PER CAPITA ACTUALLY SPENT ON EDUCATION AND HEALTH, 1900-1989

	Education (1)		Health	
Year	Percent	Pesos Per Capita	Percent	Pesos Per Capita
1975	14.8	93.3	3.4	21.4
1976	14.4	101.1	3.2	22.5
1977	16.1	108.5	3.5	23.6
1978	16.4	114.3	3.3	23.0
1979	14.7	121.8	3.0	24.9
1980	15.0	134.3	2.1	18.8
1981	14.4	161.7	1.9	21.3
1982	11.3	163.3	1.4	20.2
1983	9.1	107.9	1.1	13.0
1984	10.3	111.0	1.3	14.0
1985	10.2	112.6	1.3	14.3
1986	7.4	100.9	1.1	15.0
1987	6.5	98.7	0.9	13.7
1988	6.3	96.2	0.9	13.7
1989	6.4	102.1	0.9	14.4

1. Includes transfers to higher education, e.g. UNAM, UAM, etc.

a. No data owing to civil war.

SOURCE: 1900-1963: Wilkie, 1978, pp. 193-194, 199-200;
1964-1970: Wilkie, 1978, pp. 354-355;
1971-1989: Calculated from Tables 7, 11, and 12, above.

TABLE 19

EFFECT OF MEXICO'S ECONOMIC CRISIS ON TOP SALARY SCHEDULE AT THE UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO, 1982-1989

(Pesos Converted to Real Dollars)

Salary Date	A. Peso Salary[1]	B. Avg. Pesos per Dollar	C. Nominal Dollar Salary	D. U.S. Consumer Price Index (1982 = 100)	E. Real Dollar Salary
Pre-devaluation					
Feb. 1, 1982	63,712	26.0	2,450	100.0	2,450
Post-devaluation					
Feb. 18, 1982	70,084	56.4	1,243	100.0	1,243
Feb. 1, 1983	87,604	150.3	583	103.2	565
Feb. 1, 1984[a]	113,008	185.2	610	107.7	566
Feb. 1, 1985	176,800	310.2	570	111.4	512
Feb. 1, 1986	275,824	637.4	433	113.7	381
Feb. 1, 1987	532,028	1,405.8	378	118.7	318
Oct. 1, 1987	1,101,840	1,677.0[b]	657	119.5[d]	550
Feb. 1, 1989	1,781,352	2,336.0[c]	753	126.1[e]	597

1. Top Scale = Titular C, Tiempo Completo, Profesores/Investigadores.

a. Beginning in 1984, salaries were adjusted several times yearly rather than once yearly.

b. Average for Oct. 1987, according to Banco Nacional de México, Review of the Economic Situation of Mexico, April 1988.

c. Average for for February 1989, according to ibid, July 1989.

d. Fourth quarter.

e. First quarter.

SOURCE: Wilkie, 1990, p. 30.

TABLE 20
RATIOS FOR EXPENDITURE PERCENTAGES PER ENROLLMENT BY EDUCATIONAL LEVEL AND SHARES FOR OTHER IN TOTAL MEXICAN EDUCATIONAL OUTLAY, 1979 AND 1988
(Including Transfers)

Part I. Percentages and Ratios

	1979							
	A.	B.	C.	D.	E.	F.	G.
Item	Students (1)	Expenditure (2)	Ratio: Student Share Per Exp. (B/A) (3)	Students (4)	Expenditure (5)	Ratio: Student Share Per Exp. (E/D) (3)	Student Per Cent Change 1979-80 t 1988-89 (A/D -1x1
Total	100.0	100.0	**	100.0	100.0	**	212.0
Preschool	4.2	2.0	0.5	10.5	4.5	0.4	4.0
Primary	70.1	33.3	0.5	58.0	23.0	0.4	73.0
Secondary	14.0	14.9	1.2	17.1	15.0	0.9	54.0
Bachillerato	4.7	6.1	1.3	6.5	5.4	0.8	74.0
Higher (6)	5.2	19.0	3.7	5.1	23.4	4.6	24.0
Other (7)	1.8	24.7	13.7	2.8	28.7	10.3	147.0

TABLE 20 (Continued)
RATIOS FOR EXPENDITURE PERCENTAGES PER ENROLLMENT BY EDUCATIONAL LEVEL AND SHARES FOR OTHER IN TOTAL MEXICAN EDUCATIONAL OUTLAY, 1979 AND 1988
(Including Transfers)

Part 2. Other Expenditure Percentages in Total Outlay

	1979	1988
Library and Book Publication	0.2	0.7
Culture and Museums	1.4	2.4
Youth Sports and Recreation	1.5	0.3
Administration and Services	6.9	6.1
Adult Education	2.6	2.0
Indian Education	3.2	3.2
Construction	4.6	4.3

1. 1979-1980: 16,444.7 thousand students.
2. 102.6 current pesos billion
3. Ratio above 1.0 = greater share of outlay than share of students.
4. 1989-1990: 25,447.7 thousand students.
5. 10,120.1 billion current pesos.
6. Including normal and postgraduate.
7. Including worker training, vocational schools, adult and Indian education, special and physical education, libraries and book publication, youth sports and recreation, administration and services, and school construction.

SOURCE: A,D, Calculated from data provided ~~by José Angel Pescador.~~ Appendix IV.
B,E, Calculated from data given in CSG, 1989, p. 187.
C,F,G, Calculated.

TABLE 21
WILKIE VIEW OF CENTRAL ACTUAL INVESTMENT IN EDUCATION
AS SHARE OF TOTAL CENTRAL GROSS OUTLAY, 1982-1988
(Current Pesos and Percent)

	Millions of Pesos		
	A.	B.	C.
Year	Total Central Outlay	Investment in Education (1)	Per Cent (B/A)
1982	3,269,800	30,204	0.9
1983	5,367,500	67,723	1.3
1984	8,065,300	115,938	1.4
1985	13,020,500	179,288	1.4
1986	28,574,600	143,300	0.5
1987	77,754,900	336,500	0.4
1988	160,896,500	654,519	0.4

1. Because virtually all Decentral outlay for investment in education comes from transfers from the Central government, such outlay is considered here to be Central investment. That the Decentral subsector has virtually no income of its own for investment in education and relies on taxes collected and transferred by the Central government is evident in MMH, 1977, pp. 611-613, and CSG, 1989, p.320. (Other Decentral agencies such as Health do have their own income, and are not included in this Table.)

SOURCE: Adapted from yearly data on Central total expenditure given in Appendix C and from yearly data on investment in Education given in Table 14.

TABLE 22

INTESTINAL INFECTION IN MEXICO, 1979-1986

Part 1. Rank of Mortality by Principal Diseases
(Rank of Rate)

Age Group	Name	Rank 1979	Rank 1986
All	Intestinal Infections	2	1
	Pneumonia and flu	1	2
Infants (under age 1)	Intestinal Infections	2	1
	Pneumonia and flu	1	2
Preschool (ages 1-4)	Intestinal Infections	1	1
	Pneunonia and flu	2	2
School-age children (5-14)	Intestinal Infections	1	1
	Pnuemonia and flu	2	2
Adult Population (15-64)	Intestinal Infections	8	7
	Heart and flu	1	2
	Malignant tumors	1	1

Part 2. Rate of Mortality by Principal Disease

Age Group	Name	Rank 1979	Rank 1986
All (1)	Intestinal Infections	56.5	37.2
	Pneumonia and flu	62.5	27.0
Infants (under age 1) (2)	Intestinal Infections	819.3	529.4
	Pneumonia and flu	831.8	325.5
Preschool (ages 1-4) (3)	Intestinal Infections	85.7	70.0
	Pneunonia and flu	57.0	26.5
School children (5-14) (4)	Intestinal Infections	7.9	5.5
	Pnuemonia and flu	6.5	2.4
Adults (15-64) (5)	Intestinal Infections	9.4	7.7
	Heart and flu	41.9	30.8
	Malignant tumors	34.4	36.4

1. Rate per 100,000 persons.
2. Rate per 1,000 registered live births.
3. Rate per 100,000 children ages 1-4.
4. Rate per 100,000 children 5-14.
5. Rate per 100,000 persons ages 15-64.

SOURCE: Adapted from CSG, 1989, pp. 199-200.

TABLE 23

WILKIE VIEW OF SANITATION'S EXISTING SHARE

OF PLANNED SSA GROSS OUTLAY FOR 1990

(Million Current Pesos and Percent) (1)

Items	Planned Amount	Percent
SANITATION subtotal (2)	109,702.5	4.8
Health education (3,4)	16,467.2	.7
Sanitary regulation	53,218.1	2.3
"Environmental" health (5)	1,821.4	.1
National Nutrition Institute (3)	38,195.8	1.7
Prevention of food-borne disease (6)	(a)	0
Prevention of sewage-borne disease (6)	(a)	0
Sanitary engineering	(a)	0
Construction of Public Toilets	(a)	0
Diarrheal Disease Center	(a)	0

1. SSA gross outlay of 2,306,819.7 million pesos = 100.0 percent (this projected budget constitutes 1.8 percent of planned Central gross outlay for 1990).
2. These items cross divisional categories given in Table 24; subtotal excludes BANOBRAS and Comisión Nacional del Agua.
3. Focus is only partly on sanitation of food and water in relation to sewage disposal.
4. Theoretically the Family Planning subdivision in Table 24 contains funds for a sanitary education unit, but SSA's "Analítico de Claves por Programa-Subprograma" indicates that the unit is unfunded.
5. Excludes ecological problems in causing disease, but includes occupational causes.
6. Included without focus in subdivision for "Infections Disease" (Table 24).

a. Division does not exit in budget.

SOURCE: SPP, PE, 1990, Tomo II, Sector Salud; and note 4, above.

TABLE 24

SSA PLANNED OUTLAY BY FUNCTION, 1990

(2,306,819.7 Million Current Pesos = 100.0 Percent)

	Category Percent	
Divisional Category	Total	Subtotal
Administration	17.2	
Policy and Planning	1.7	
Basic and Applied Research/Technology	1.7	
Training of health workers	6.0	
Sanitary regulation (1)	2.4	
Preventive medicine	11.4	
Innoculations		2.2
Infectious disease		6.1
Disease detection		.2
Family planning		2.2
Health education		.7
Curative Medicine (2)	46.9	
Social services (3)	1.1	
Construction	10.6	
Health training facilities		.3
Health care facilities		10.2
Administrative facilities		.1
Mfg. of medicines and supplies (4)	1.0	

1. Including licensing; and .1 percent for "environmental" health.
2. Including clinics, hospitals, outpatient care, and rehabilitation.
3. Including hanicapped and homeless care.
4. Including innoculations and prosthesis.

SOURCE: SPP, PE, 1990, Tomo II, Sector Salud, "Resumen Programático Económico Financiero."

TABLE 15

SALARIES (1) AS SHARE OF ACTUAL

CENTRAL AND DECENTRAL GROSS EXPENDITURE, 1979-1989

(Percent)

	A.	B.
YEAR	Central	Decentral (2)
1979	16.5	17.0
1980	14.4	14.5
1981	17.3	15.0
1982	12.3	17.1
1983	10.4	14.2
1984	12.2	13.5
1985	12.1	15.3
1986	8.4	15.2
1987	7.4	15.6
1988	7.1	16.2
1989 (a)	7.2	16.5

a. SPP estimate.
1. Personal services; may exclude consultants and temporary appointments but these do not carry benefits.
2. Excludes off-budget agencies.

SOURCE: A: calculated from salary data in CSG, 1989, p. 31 and Central totals in Appendix C, below.
B: calculated from salary data in CSG, 1989, p. 32 and Decentral totals in Table 4, Part 2, Column B, above

TABLE 26

SALARIES AS SHARE OF GROSS ACTUAL OUTLAY IN SELECTED SOCIAL AGENCIES, 1980-1989

(Percent)

Year	SEP	SSA	IMSS	ISSSTE
1980	56.6	a	a	a
1981	64.7	a	a	a
1982	64.9	a	a	a
1983	60.1	68.0	55.3	25.8
1984	61.6	66.0	53.9	24.1
1985	61.5	63.7	46.7	31.5
1986	62.4	60.4	45.9	23.7
1987	61.2	54.9	41.3	21.8
1988	60.0	54.0	39.7	25.2
1989	61.7	51.8	33.6	24.9

a. Data not given in source.

SOURCE: Adapted and calculated from data in SSA, DGPOP, computer printouts: EVGASEDU for SEP, printout PE/SYM/EJERSSA/01 for SSA, printout D/SQZ/IMSS/01 for IMSS, and D/SQZ/ISSSTE/01 for ISSSTE. Total outlay for IMSS and ISSSTE is from CSG, 1989, p. 32.

TABLE 27

SOURCE OF ACTUAL INVESTMENT FUNDS FOR PUBLIC SECTOR

ON-BUDGET AND OFF-BUDGET AGENCIES, 1988

(Current Pesos and Percent)

Part 1: Totals for Central and Decentral Subsectors

Million	Percent	Item		DECENTRAL Subtotal = 69.1 % (2) On-Budget	DECENTRAL Subtotal = 69.1 % (2) Off-Budget
9,072,659.8	100.0	Total (1)	Subtotals	43.9	25.2
5,861,666.4	30.7	Tax revenue		0.0	0.0
9,078,285.1	47.6	Agencies' own income source (3)		27.5	20.1
1,456,814.0	7.7	Domestic credits		6.1	1.6
2,630,041.0	13.8	Foreign credits		10.3	3.5

TABLE 27 (cont'd)

SOURCE OF ACTUAL INVESTMENT FUNDS FOR PUBLIC SECTOR

ON-BUDGET AND OFF-BUDGET AGENCIES, 1988

(Current Pesos and Percent)

Part 2. Selected Decentral Subtotals for Agencies' Own Income

	Subtotal = 42.7 %	
	On-budget	Off-budget
13 Selected Subtotals (4)	27.0	15.7
PEMEX	17.4	
Electricity	5.0	
Air fares and road tolls	1.6	
TELMEX		4.3
FONHAPO		0.7
DDF		10.1
IMSS	1.0	
ISSSTE	1.9	
UNAM	0.03	
CAPFACE	0.1	
FONATUR		0.3
CONASUPO and depositories		0.3
Nuevo Vallarta (5)		0.03

1. Items equal 100.0 percent including .2 percent "cooperaciones" (not shown).
. Decentral subtotal + Central tax revenue + cooperaciones = 100.0 percent.
. Fees, fares, sales, contract payments, contributions,
. This subtotal of 42.7 percent is included in Part 1's subtotal of 47.6 percent for all agencies with own income, subtotal for agencies not selected here equals 4.9 percent.
5. Ejido dedicated to tourism and supervised under Secretariat of Land Reform.

SOURCE. Adapted and calculated from CSG, 1989, pp. 315-322.

TABLE 28

WILKIE VIEW OF

PUBLIC SECTOR ACTUAL INVESTMENT AS PERCENT OF

CENTRAL GROSS EXPENDITURE, 1976-1988

(Current Pesos and Percent)

YEAR	A. Public Sector On- and Off- Budget Investment (1) (Billions)	B. Percent of Central Outlay (2)
1976	123.6	44.9
1977	146.7	41.3
1978	231.6	52.3
1979	493.8	78.9
1980	473.2	50.7
1981	743.0	48.5
1982	1,016.0	31.1
1983	1,365.4	25.4
1984	2,262.4	28.0
1985	3,030.3	23.3
1986	4,869.4	17.0
1987	10,797.1	13.9
1988	19,072.7	11.9

1. Central and Decentral capital Expenditure (including recoverable capital investment); data differs in NAFINSA, EMC, 1988, p. 297, and in yearly presidential reports.

2. Yearly data in Col. A divided by yearly Central outlay in Appendix C.

SOURCE: A: 1976-1981: SPP, 1988, p.13;
1982-1988: Table 15.

B: Calculated according to explanation in note 2.

Note that this calculation is intended to reveal a relationship; only part of Public Sector investment is included in Central outlay.

TABLE 15

PUBLIC SECTOR IMPACT OF ACTUAL INVESTMENT BY PROGRAM, 1982-1988
(Millions of Current Pesos and Percent)

Part. 1: Absolute Data: Include Off-Budget outlays

Terms and Program	1982	1983	1984
A. MP	1,016,042	1,365,427	2,262,391
Rural Development	147,925	119,531	218,320
Regional Dev & Ecology	77,100	125,058	258,832
Fishing	7,037	4,904	11,381
Social	71,574 (a)	106,303	201,096
Education	30,204	67,723	115,938
Health & Labor	41,370	38,580	85,158
Urban Development (1)	* *	* *	* *
Commun and Transport	148,628	288,551	535,620
Basic Consumption	6,345	6,269	16,971
Tourism	9,098	16,797	35,802
Industry	524,611	110,654	158,295
Energy and Mining	* * (b)	549,126	743,582
Administration	23,724	38,234	82,492
B. Total Public Sector	4,911,700	8,393,200	13,384,400

Part 2: Percent Data: Include Off-budget outlays

Program	1982	1983	1984
C. Total	100.0	100.0	100.0
Rural Development	14.6	8.8	9.6
Regional Dev & Ecology	7.6	9.2	11.4
Fishing	0.7	0.4	0.5
Social	7.0	7.8	8.9
Education	3.0	5.0	5.1
Health & Labor	4.1	2.8	3.8
Urban Development (1)	* *	* *	* *
Commun and Transport	14.6	21.1	23.7
Basic Consumption	0.6	0.5	0.8
Tourism	0.9	1.2	1.6
Industry	51.6	8.1	7.0
Energy and Mining	0.0 ** (b)	40.2	32.9
Administration	2.3	2.8	3.6
D. Invest as a Share of Total Pub Sect (A/B)	20.7	16.3	16.9

TABLE 15 (Continued)
PUBLIC SECTOR IMPACT OF ACTUAL INVESTMENT BY PROGRAM, 1982-1988
(Millions of Current Pesos and Percent)

Part. 1: Absolute Data

Terms and Program	1985	1986
A. MP	3,030,261	4,869,400
Rural Development	271,015	448,100
Regional Dev & Ecology	335,882	1,026,500
Fishing	7,714	11,100
Social	308,000	408,000
Education	179,288	143,300
Health & Labor	128,712	264,700
Urban Development	* *	* *
Commun and Transport	666,465	912,000
Basic Consumption	25,235	42,000
Tourism	18,704	34,700
Industry	126,663	320,900
Energy and Mining	1,134,028	1,561,400
Administration	136,555	104,700
B. Total Public Sector	20,124,000	40,832,600

Part 2: Percent Data

Program	1985	1986
C. Total	100.0	100.0
Rural Development	8.9	9.2
Regional Dev & Ecology	11.1	21.1
Fishing	0.3	0.2
Social	10.2	8.[illegible]
Education	5.9	2.9
Health & Labor	[illegible]	5.4
Urban Development	** 0.0	** 0.0
Commun and Transport	22.0	18.7
Basic Consumption	0.8	0.9
Tourism	0.6	0.7
Industry	4.2	6.6
Energy and Mining	37.4	32.1
Administration	4.5	2.2
D. Invest as a Share of Total Pub Sect (A/B)	15.1	11.9

TABLE 15 (Continued)
PUBLIC SECTOR IMPACT OF ACTUAL INVESTMENT BY PROGRAM, 1982-1988
(Millions of Current Pesos and Percent)

Part. 1: Absolute Data

Terms and Program	1987	1988 (c,d)
A. MP	10,797,100	19,072,660
Rural Development	882,200	1,146,892
Regional Dev & Ecology	2,051,000	2,797,932
Fishing	18,300	17,505
Social	934,900	2,365,870
Education	336,500	654,519
Health & Labor	598,400	1,109,924
Urban Development	* *	601,427
Commun and Transport	1,952,100	3,494,993
Basic Consumption	103,100	163,882
Tourism	109,000	120,367
Industry	850,100	1,499,542
Energy and Mining	3,610,800	6,994,685
Administration	285,600	470,992
B. Total Public Sector	105,609,000	216,188,500

Part 2: Percent Data

Program	1987	1988(c,d)
C. Total	100.0	100.0
Rural Development	8.2	6.0
Regional Dev & Ecology	19.0	14.7
Fishing	0.2	0.1
Social	8.6	12.4
Education	3.1	3.4
Health & Labor	5.5	5.8
Urban Development	* *	3.2
Commun and Transport	18.1	18.3
Basic Consumption	1.0	0.9
Tourism	1.0	0.6
Industry	7.9	7.9
Energy and Mining	33.4	36.7
Administration	2.6	2.5
D. Invest as a Share of Total Pub Sect (A/B)	10.2	8.8

TABLE 29 (Continued)

SPP PUBLIC SECTOR IMPACT OF ACTUAL INVESTMENT BY PROGRAM, 1982-1988

1. Includes outlay gained from tax revenue, borrowings, Central transfers to Decentral agencies, and agencies' own income from sales, rentals, fares, fees, licenses, royalties, contracts, contributions.
2. Includes social security and DIF.

a. Subtotals

b. Included in Industry.

c. Of the total Public Sector investment, 27.4 percent went to the D.F., according to CSG, 1989, p. 300.

d. Central share in total Public Sector investment = 18.6 percent, of which 35.1 percent went to the D.F., according to CSG, 1989, p. 300.

e. Shifted to Social in source, ex post facto, but not shifted here.

SOURCE: Section A, Investment data are from SEP, CEGE, 1989, p. 27, except 1988 data are from CSG, 1989, p. 299.

Section B, Public Sector expenditure gross totals are from Table 8, Row B.

Section C, Calculated here.

TABLE 30

SPP VIEW OF PUBLIC SECTOR ACTUAL INVESTMENT
BY FUNCTIONAL SUMMARY IN THREE MAJOR CATEGORIES, 1982-1988

(Yearly Totals = 100.0 Percent)

Year	Economic	Social	Adm.
1982	90.6	7.1	2.3
1983	89.4	7.8	2.8
1984	87.5	8.9	3.6
1985	85.3	10.2	4.5
1986	89.5	8.3	2.2
1987	88.8	8.6	2.6
1988	85.1	12.4	2.5

(1) Implicit division for Economic is here made explicit by adding together all categories in source except Social and Administrative.

SOURCE: Calculated from data in Table 29. Cf. Table 3, which gives Public Sector programmable expenditure.

TABLE 31

WILKIE VIEW OF CENTRAL ACTUAL OUTLAY FOR INVESTMENT
COMPARED TO CENTRAL GROSS ACTUAL EXPENDITURE, 1988
(Excludes Off-Budget Agencies and Decentral Agencies' Own Income) (1)

Part 1. Investment Share

Category	A. Investment	B. Total Central	Percent A/B
Billion Pesos	8,973,834.4	160,845,5	5.7

Part 2. Comparison of Investment and Total Central
(Economic + Social + Administrative = 100.0 Percent)

Category	Investment	Exp.
Economic	**83.9**	8.1
Ag & Irr.	12.4	1.4
Ag Reform	(a)	0.1
Commun & Tran	18.6	1.5
Ind & Commerce	.4	1.4
SEMIP (2)	41.9	2.2
Fishing	.2	0.1
Urban & Ecology (3)	3.2	0.3
Regional Dev	6.9	1.1
Tourism	.3	0.1
Social	**11.5**	8.4
Education	5.9	6.3
Health	1.5	0.9
Labor	.2	0.1
Soc Sec (4)	3.9	1.1
Administrative	**4.6**	83.5
Legislative	.2	0.1
Presidency	.1	0.1
Judicial	.2	0.1
Attorney Gen	.1	0.1
Interior	.5	0.2
Foreign Relations	.1	0.2
Treasury (5)	.3	1.2
SPP (6)	.8	0.3
Controller	(b)	0.0
Defense (7)	1.6	0.9
Navy (7)	.7	0.4
Other	(b)	0.8
Rev Sharing/ Fiscal Incent.	**	7.6
Debt (8)	**	71.6

1. Includes tax revenue, borrowing, and Central transfers to on-budget agencies; source shows no Central transfers for off-budget investment.
2. Secretary of Energy, Mines, and Parastate Industry.
3. Includes 1.2 percent for FONAPHO.
4. Includes IMSS, ISSSTE, DIF, ISSFAM.
5. Includes .3 percent which could be considered as Economic outlay.
6. Includes .2 percent for research in science and technology, which could be considered as Education outlay.
7. Includes housing and assistance services.
8. Includes amortization, interst, commissions, expenses, and ADEFAS.

a. Agrarian Reform = .02 percent.
b. Percent is smaller than units given here.

SOURCE: Investment adapted and calculated from CSG, 1989, pp. 315-322.
Expenditure is from Table 12. Cf. Table 3.

TABLE 32
SUMMARY OF VIEWS ON GROSS ACTUAL EXPENDITURE
AND INVESTMENT DATA FOR 1988

(Percent)

Part 1. Views of Macro Factors

Category	Percent
A. SPP: Public Sector gross outlay as share of GDP	54.6
B. Wilkie: Central Gross outlay as share of GDP	40.6
C. SPP: Share of Public Sector gross outlay analyzed	34.3
D. Wilkie: Share of Central gross outlay analyzed	100.0
E. SPP: Central gross as share of Public Sector programmable	21.4
F. Wilkie: Central gross as share of Public Sector gross	74.4
G. SPP: Decentral as share of Public Sector programmable	78.6
H. Wilkie: Decentral as share of Publiic Gross Outlay	25.6
I. SPP: Investment (1) as share of Public Sector gross outlay	8.8
J. Wilkie: Investment (2) as share of Central gross outlay	5.7

Part 2. Comparison of Expenditure Functions

Category	Economic	Social	Adm.
K. SPP Public Sector programmable	63.9	28.5	7.6
L. Wilkie Central outlay	8.1	8.4	83.5
M. SPP Public Sector investment	85.1	12.4	2.5
N. Wilkie Central investment	83.9	11.5	4.6

1. SPP implicitly focuses on agencies' own funds and on inclusion of Decentral off-budget funds for investment.

2. Wilkie explicitly focuses on agencies' share in taxes and borrowings for investment and on excluding Decentral off-budget funds as well as on exclusion of agencies' own funds.

SOURCE: A, Table 6
B, Table 6
C, Calculated from Appendixes D and E; for 1989, see Table 2.
D, Chart 1 and Table 2
E, Calculated from data in CSG, 1989, pp. 33-37.
F, Table 6
G, Calculated as residual of data in line E.
H, Table 6
I, Table 29
J, Table 31
K, Table 15
L, Table 13
M, Table 30
N, Table 31

APPENDIX A

ABBREVIATIONS

(See Also Chart 3)

ADEFAS	Adeudos de Ejercicios Fiscales Anteriores--debts owed from previous years (accounts payable)
BANOBRAS	Banco Nacional de Obras y Servicios Públicos
BANRURAL	Banco Nacional de Crédito Rural
Billion	See, MMP
CAPFCE	Comité Administrador del Programa Federal de Constucción de Escuelas
CONACYT	Consejo Nacional de Ciencia y Tecnología
CP	Cuenta Pública
CSG	Carlos Salinas de Gortari
DDF	Departamento del Distrito Federal
DIF	Sistema Nacional para el Desarrollo de la Familia
DF	Distrito Federal
DGE-BDM	Dirección General de Estadística-Banco de México (sources used to develop linked composite price index)
EMC	La Economía Mexicana en Cifras, published by NAFINSA
FONAHPO	Fideicomiso Fondo Nacional de Habitaciones Populares
FOVISSTE	Instituto del Fondo Nacional para Vivienda de los Trabajadores del Estado
IMF	International Monetary Fund
IMSS	Instituto Mexicano del Seguro Social
IMSS-COPLAMAR	IMSS, Programa de Solidaridad Social por Cooperación Comunitaria

APPENDIX A (Continued, 2)

ISSFAM	Instituto de Seguridad Social para las Fuerzas Armadas Mexicanas
ISSSTE	Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado
Metro	Sistema de Transporte Colectivo (Mexico City)
Million pesos	See, MP
MMH	Miguel de la Madrid Hurtado
MP	Millon de pesos (Million pesos in U.S. terms)
MMP	Mil millones de pesos (billion pesos in U.S. terms)
NAFINA	Nacional Financiera, S.A.
SANITATION	National Sanitation Campaign (proposed here); see Table 23
SCT	Secretaría de Comunicaciones y Transportes
SEP	Secretaría de Educación Pública
SHCP	Secretaría de Hacienda y Crédito Público
SNI	Sistema Nacional de Investigadores
SPP	Secretaría de Programación y Presupuesto
SSA	Secretaría de Salud
PEMEX	Petróleos Mexicano
RESM	Review of the Economic Situation of Mexico, published by BANAMEX
STPS	Secretaría de Trabajo y Previsión Social
TELMEX	Teléfonos de México
UAM	Universidad Autónoma Metropolitana

APPENDIX B

DEFINITIONS

abasto	basic supply and consumption (including services and commodities)
actual budget	amount expended (presupuesto ejercido) in contrast to planned budget
administrative outlay	amounts budgeted for the total operation of secretariats, agencies, funds, and branches of government the primary purpose of which is administrative; e.g. includes the total budgets of Treasury and Defense and the legislative and judicial branches; see Chart 3, Part 5
budget	see "planned budgets" and "actual budgets"
Central government	see "Central subsector"
Central subsector	one of two divisions into which the Public Sector is divided; includes executive, judicial, and legislative branches of government and funds controlled by the president; the other subsector is "Decentral" or "parastate" subsector; cf. "Extended Public Sector
debt payments	foreign and domestic debt including amortization, interest, ADEFAS, commissions costs

APPENDIX B (Continued, 2)

Decentral government	see "Decentral subsector"
Decentral subsector	or Parastate subsector, one of the two divisions in the Public Sector, the other being "Central" subsector; the Decentral subsector includes agencies, funds, and companies majority-owned by the government and excludes minority holdings; cf. "Extended Public Sector"
Extended Public Sector	Public Sector (see below) plus Decentral subsector units which are off-budget and sub-national governmental units (DDF, States, municipios, and localities)
functional budgeting	the grouping of outlay according to purpose, e.g. Economic, Social, Administrative--see Chart 3
gross outlay	total outlay including amortization of debt and ADEFAS--see "net outlay," below, and Tables 2 and 5); see, below, "virtual and compensatory items," which are included in gross outlay

APPENDIX B (continued, 3)

net outlay	gross outlay minus amortization of debt and ADEFAS (see "gross outlay," above, and Tables 2 and 5); cf. Mann 1979, p. 522) who defines net by deducting from gross the following budgetary categories: revolving debt amortization, amortization, tax compensated subsidies, notes under account of PEMEX, and accounts compensated for by capital recoveries and by sales (Mann's net equals SHCP's "gastos presupuestales efectivos"); see, below, "virtual and compensatory items," which are excluded in net outlay
nominal terms	non-deflated amounts of money
off-budget	funds generated by agencies and trusts as their own income from sales, fares, fees, etc. (see Table 27); allocation and administration of such funds without legislative approval and without audit by the Secretariat of the Controller General; and administration of Central transfer funds, usually to companies in which the Central government is a minority share-holder

APPENDIX B (Continued, 4)

on-budget	funds in the Central and Decentral budgets generated by tax revenues and subject to legislative approval for allocation and administration, and subject to audit by the Secretariat of the Controller General; usually involves Secretariats, funds, and programs directly administered by the Central and Decentral agencies and by Decental units that are majority owned by the Central government
Parastate subsector	see "Decentral subsector"
planned budget	projected expenditure in contrast to actual expenditure; cf. actual budget
program budgeting	the grouping of expenditures by function; Mexico's program budgeting occurs within secretariats and does not cross their bureaucratic lines
programmable	funds over which the president has direct and "discretionary" control (see Table 2), officially excluding payments on the debt and transfers that are ostensibly beyond presidental control
projected budgets	planned outlay
Public Sector	Central subsector plus Decentral subsector; cf. "Extended Public Sector"
real terms	deflated with price index to eliminate inflation; cf. "nominal budget"

APPENDIX B (Continued, 5)

Solidarity	Programa Nacional de Solidaridad
virtual and compensatory items	involves government income and expenditure of money which is neither collected nor expended explicitly because the operations are self-cancelling; e.g., virtual outlay involves implicit expenditure offset by taxes not collected, by deductions permitted against taxes, tax compensated subsidies, or investment and amortization compensated by sales or capital recoveries; cf. "gross" and "net," above, and Mann, 1979, p. 522.

File: TABLEX

APPENDIX C
CENTRAL GOVERNMENT GROSS EXPENDITURES AS
SHARE OF MEXICO'S GDP, 1900-1989

	A.	B.	C.
	Current Pesos		
Year (1)	GDP Millions	Actual Central Government Expenditure Thousands	% (B/A)
1900	1,316.8	59,832 (a)	4.5
1901	1,774.1	63,081	3.6
1902	1,672.3	68,223	4.1
1903	1,859.0	76,382	4.1
1904	1,835.7	79,153	4.3
1905	2,272.8	79,470	3.5
1906	2,216.6	85,077	3.8
1907	2,346.0	93,197	4.0
1908	2,407.6	92,967	3.9
1909	2,643.1	95,039	3.6
1910	3,100.5	101,237	3.3
1921	5,455.0	226,353	4.1
1922	4,590.2	228,093	5.0
1923	5,013.6	235,354	4.7
1924	4,632.6	276,570	6.0
1925	5,238.5	302,164	5.8
1926	5,468.8	324,938	5.9
1927	4,987.0	310,082	6.2
1928	5,017.8	287,946	5.7
1929	4,862.9	275,541	5.7
1930	4,667.7	279,122	6.0
1931	4,218.8	226,478	5.4
1932	3,205.5	211,625	6.6
1933	3,781.7	245,951	6.5
1934	4,150.9	264,740	6.4
1935	4,540.3	300,822	6.6
1936	5,345.7	406,098	7.6
1937	6,800.4	478,756	7.0
1938	7,281.1	536,955	7.4
1939	7,785.1	620,291	8.0

APPENDIX C (Continued)
CENTRAL GOVERNMENT GROSS EXPENDITURES AS SHARE OF MEXICO'S GDP, 1900-1989

	A. Current Pesos	B.	C.
Year (1)	GDP Millions	Actual Central Government Expenditure Thousands	% (B/A)
1940	8,248.8	658,335	8.0
1941	9,232.4	777,594	8.4
1942	10,680.8	1,005,675	9.4
1943	13,035.3	1,195,516	9.2
1944	18,801.2	1,463,838	7.8
1945	20,565.7	1,660,149	8.1
1946	27,929.6	1,920,810	6.9
1947	31,022.6	2,208,601	7.1
1948	33,101.2	2,773,365	8.4
1949	36,411.8	3,740,587	10.3
1950	42,162.8	3,463,290	8.2
1951	54,374.7	4,670,088	8.6
1952	60,992.6	6,464,230	10.6
1953	60,663.7	5,490,402	9.1
1954	73,935.6	7,916,807	10.7
1955	90,053.3	8,883,121	9.9
1956	102,919.9	10,270,112	10.0
1957	118,205.7	11,303,248	9.6
1958	131,376.8	13,287,707	10.1
1959	140,771.5	14,157,742	10.1
1960	159,703.2	20,150,330	12.6
1961	173,236.1	20,362,040	11.8
1962	186,780.7	20,219,159	10.8
1963	207,952.3	20,294,906	9.8
1964	245,500.5	28,285,590	11.5
1965	267,420.2	36,715,603	13.7
1966	297,196.0	32,495,967	10.9
1967	325,024.8	40,852,939	12.6
1968	359,857.7	41,124,294	11.4
1969	397,796.4	49,816,139	12.5
1970	444,271.4	52,679,003	11.9
1971	490,011.0	55,786,000 (b)	11.4
1972	564,726.5	77,230,000	13.7
1973	690,891.5	102,241,000	14.8
1974	899,706.8	135,795,000	15.1
1975	1,100,049.8	200,416,000	18.2
1976	1,370,968.3	274,963,000	20.1
1977	1,849,262.7	355,132,000	19.2
1978	2,337,397.9	442,471,000	18.9
1979	3,067,500.5 (c)	626,000,000	20.4

APPENDIX C (Continued)
CENTRAL GOVERNMENT GROSS EXPENDITURES AS SHARE OF MEXICO'S GDP, 1900-1989

	A.	B.	C.
	Current Pesos		
Year (1)	GDP Millions	Actual Central Government Expenditure Thousands	% (B/A)
1980	4,470,100.0 (d)	933,500.0	20.9
1981	6,127,600.0	1,532,700.0	25.0
1982	9,797,800.0	3,269,800.0	33.4
1983	17,877,800.0	5,367,500.0	30.0
1984	29,471,600.0	8,065,300.0	27.4
1985	47,391,700.0	13,020,500.0	27.5
1986	79,535,600.0	28,574,600.0	35.9
1987	193,462,400.0	77,754,900.0	40.2
1988	395,882,900.0	160,896,500.0	40.6
1989	494,054,800.0	207,806,200.0	42.1

(1) No data on GDP for the years from 1911 through 1920.
(a) Expenditure through 1910 is for fiscal years, e.g., 1900-01.
(b) Rounded beginning in 1971.
(c) Rounded beginning in 1979.
(d) Revised GDP series begins 1980; data for 1980 are 193 MMP higher than unrevised series for 1980.

SOURCE: 1900-78, Wilkie, 1985, p. 875, citing 1979-89, Table 6.

APPENDIX D
SPP'S VIEW OF THE PUBLIC SECTORS'S PROGRAMMABLE ACTUAL EXPENDITURE
ON 10 MEXICAN FUNCTIONS, 1970-1989
(Millions of Current Pesos)

Year	Total MP Impact	Rural	Regional & Urban	Fishing	Social	Comm. & Transport
1970	72,422	4,296	2,359	* *	19,075	7,817
1971	82,353	5,647	2,417	* *	23,700	9,194
1972	105,708	8,887	5,926	* *	29,701	9,448
1973	144,964	13,103	6,490	2,110	37,243	13,248
1974	195,563	17,912	6,490	2,164	53,440	13,872
1975	290,158	31,416	8,358	3,254	72,242	20,219
1976	335,691	35,773	12,136	4,237	98,255	27,323
1977	430,143	39,228	16,025	5,450	128,999	31,001
1978	565,409	51,292	22,284	6,982	162,654	36,176
1979 (a)	767,500	74,300	43,200	8,900	213,400	52,500
1980	1,159,700	139,600	63,200	13,200	296,900	79,800
1981	1,803,400	191,800	117,200	24,200	445,600	117,600
1982	2,643,500	249,800	165,400	45,100	728,900	181,800
1983	4,246,100	408,100	165,100	80,400	1,024,900	347,400
1984	7,141,300	604,800	313,200	113,800	1,660,900	590,800
1985	10,572,600	856,800	613,800	155,300	2,676,800	923,600
1986	17,196,800	1,411,000	801,800	303,400	4,469,300	1,460,100
1987	39,222,700	2,500,800	1,621,700	709,000	10,374,000	3,470,400
1988	74,221,800	4,003,200	2,544,400	533,300	21,182,700	5,182,200
1989	90,442,300	5,618,900	3,791,700	148,800	28,380,500	5,264,700

APPENDIX D (Continued)
SPP'S VIEW OF THE PUBLIC SECTORS'S PROGRAMMABLE ACTUAL EXPENDITURE
ON 10 MEXICAN FUNCTIONS, 1970-1989
(Millions of Current Pesos)

Year	Basic (2) Supply	Tourism	Energy	Industry	Adm.
1970	4,638	106	20,914	313	12,904
1971	4,802	154	24,629	1,350	10,460
1972	5,079	451	28,728	4,935	12,553
1973	7,718	476	37,045	11,015	16,516
1974	16,841	641	49,063	14,558	20,582
1975	22,292	1,272	79,165	24,295	27,645
1976	18,037	1,543	83,127	23,081	32,179
1977	28,342	1,799	106,225	30,899	42,175
1978	39,990	2,072	157,627	37,287	49,045
1979 (a)	40,900	3,000	225,200	53,300	52,800
1980	68,400	4,400	319,300	90,100	84,900
1981	134,600	6,400	516,000	140,000	110,000
1982	185,200	8,900	707,700	210,900	159,800
1983	425,900	10,500	1,101,700	424,600	257,500
1984	665,700	16,900	1,756,400	940,900	477,900
1985	709,700	21,700	2,522,500	1,327,900	764,500
1986	1,059,800	27,600	4,349,400	2,104,200	1,210,200
1987	2,515,100	72,500	10,195,000	5,091,800	2,672,400
1988	5,223,200	132,400	20,226,300	9,537,700	5,656,400
1989	7,822,800	106,500	23,364,100	8,185,500	7,758,800

(a) Beginning in 1979 data are rounded.

(2) Abasto = supply and consumption of basic food via industrialization process, e.g. growing, milling, storage, slaughtering, canning, transportation, marketing (including regulation of stores and prices), and consumer protection.

SOURCE: 1970-1978: Calculated from SPP, 1988, p. 79.
1979-1989: Calculated from CSG, 1989, p. 33.

APPENDIX E
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989
(Billions of Pesos)

Category	1980	1981	1982	1983
TOTAL (1)	933,536	1,532,760	3,269,783	5,367,465
ECONOMIC	307,167	467,609	777,937	1,276,603
Ag & Irr.	91,060	132,067	173,974	218,813
Ag Reform	6,539	8,933	10,828	20,714
Commun & Tran	40,022	65,776	106,684	232,123
Ind & Commerce	41,231	63,320	96,482	155,397
SEMIP (2)	81,098	117,313	242,907	505,327
Fishing	6,395	11,741	14,357	21,205
Urban & Ecology	36,336	61,988	63,585	28,495
Regional Dev (4)	* *	* *	60,225	84,071
Tourism	4,486	6,471	8,895	10,458
SOCIAL	162,164	255,963	457,221	592,364
Education	139,940	220,466	368,608	486,856
Health	19,626	28,468	45,313	60,646
Labor	2,598	7,029	8,056	6,042
Soc Sec	* *	* *	35,244	38,820
ADMINISTRATIVE	464,205	809,188	2,034,625	3,498,498
Legislative	654	1,066	1,451	3,495
Presidency	4,890	6,983	12,590	4,711
Judicial	1,161	1,790	2,599	5,251
Attorney Gen	1,204	1,853	2,587	3,981
Interior	5,016	8,678	10,093	12,289
Foreign Rela	2,595	3,548	6,747	14,024
Treasury	68,316	102,750	126,725	257,302
SPP	7,711	11,874	17,160	23,830
Controller	* *	* *	* *	3,421
Defense	12,602	23,408	34,806	66,982
Navy	4,735	6,962	10,560	20,184
Other	52,385	88,831	48,228	97,756
Rev Sharing/ Fiscal Incentives	107,536	178,145	250,979	585,834
Debt (3)	195,400	373,300	1,510,100	2,399,438

APPENDIX E (Continued)
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989
(Billions of Pesos)

Category	1984	1985	1986(a)
TOTAL (1)	8,065,349	13,020,462	28,574,600
ECONOMIC	2,107,847	3,050,224	4,588,300
Ag & Irr.	339,513	496,978	728,200
Ag Reform	32,556	41,760	54,600
Commun & Tran	404,730	576,645	836,500
Ind & Commerce	395,674	521,847	781,300
SEMIP (2)	593,000	950,285	1,345,300
Fishing	29,292	43,489	56,700
Urban & Ecology	66,976	77,746	154,200
Regional Dev (4)	229,175	319,781	603,300
Tourism	16,931	21,693	28,200
SOCIAL	1,019,040	1,658,076	2,687,600
Education	826,712	1,332,034	2,112,700
Health	102,628	169,555	308,800
Labor	11,351	18,006	27,900
Soc Sec	78,349	138,481	238,200
ADMINISTRATIVE	4,938,462	8,312,162	21,298,700
Legislative	6,748	10,272	17,700
Presidency	8,742	10,513	21,900
Judicial	11,060	19,500	34,500
Attorney Gen	7,438	12,521	22,600
Interior	30,991	42,175	49,900
Foreign Rela	20,257	30,563	62,900
Treasury	288,360	408,310	663,400
SPP	39,592	58,841	83,500
Controller	5,458	6,879	9,300
Defense	137,062	221,496	353,800
Navy	36,111	75,383	111,200
Other	61,363	257,454	162,100
Rev Sharing/ Fiscal Incentives	922,775	1,367,492	2,079,700
Debt (3)	3,362,505	5,790,763	17,626,200

APPENDIX E (Continued)
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989
(Billions of Pesos)

Category	1987	1988	1989
TOTAL (1)	77,754,900	160,846,500	207,806,200
ECONOMIC	9,264,700	12,976,900	16,145,200
Ag & Irr.	1,476,600	2,173,600	3,105,700
Ag Reform	122,800	233,500	210,100
Commun & Tran	1,973,100	2,354,900	2,579,800
Ind & Commerce	1,455,100	2,216,300	3,910,300
SEMIP (2)	2,523,600	3,466,900	3,433,500
Fishing	86,100	135,200	148,800
Urban & Ecology	272,900	445,600	442,100
Regional Dev (4)	1,282,000	1,818,600	2,208,400
Tourism	72,500	132,300	106,500
SOCIAL	6,670,000	13,627,900	17,824,300
Education	5,034,300	10,120,100	13,300,800
Health	737,400	1,527,800	1,829,000
Labor	64,800	130,800	212,100
Soc Sec	833,500	1,849,200	2,482,400
ADMINISTRATIVE	61,820,200	134,241,700	173,836,700
Legislative	46,400	92,100	155,200
Presidency	57,500	123,900	130,800
Judicial	102,900	239,900	228,700
Attorney Gen	53,400	107,100	214,100
Interior	134,800	314,000	420,800
Foreign Rela	161,400	260,800	365,500
Treasury	1,095,300	1,988,000	2,306,200
SPP	216,400	451,300	709,000
Controller	21,800	44,500	36,800
Defense	779,400	1,476,300	1,934,500
Navy	263,800	600,700	643,100
Other	286,600	1,248,600	4,683,900
Rev Sharing/ Fiscal Incentives	5,213,800	12,157,700	14,176,000
Debt (3)	53,386,700	115,136,800	147,832,100

APPENDIX E (Continued)
WILKIE FUNCTIONAL ANALYSIS OF GROSS ACTUAL
CENTRAL GOVERNMENT EXPENDITURE
FOR SECRETARIATS, SOCIAL SECURITY, DEBT,
AND REVENUE SHARING, 1980-1989

(a) Beginning in 1986 data are rounded.
(4) SPP estimate.
(1) Total = Economic + Social + Administrative.
(2) SEMIP = Secretary of Energy, Mines, and Parastate Industry.
(3) Includes amortization, interest, commissions, and expenses as well as ADEFAS.
(4) Funds.
SOURCE: 1980-1989, CSG, 1989, p. 31.

APPENDIX F
SPP VIEW OF PROGRAMMABLE ACTUAL SOCIAL OUTLAY
AS SHARE OF GDP AND PUBLIC SECTOR, 1980-1989
(Billions of Current Pesos and Percent)

Category	1980	1981	1982	1983
MMP				
A. GDP	4,470.1	6,127.6	9,797.8	17,878.7
B. Total Public (1)	1,711.7	2,644.6	4,911.7	8,393.2
C. Social sector	296.9	445.6	728.9	1,024.9
Selected Subtotals				
D. ISSTE	44.8	56.1	87.9	126.6
E. IMSS	96.5	125.3	221.4	336.0
F. Major Higher Educ (2)	14.5	20.4	34.1	54.2
G. UAM	1.6	2.2	3.9	5.8
H. UNAM	11.1	15.9	24.9	37.7
I. Research	* *	* *	0.6	3.7
J. CONACYT	1.8	2.3	4.7	7.0
K. OHEUS (3)	8.6	12.6	22.3	33.0
Percent				
L. Social Sector/GDP (C/A)	6.6	7.3	7.4	5.7
/Public (C/B)	17.3	16.8	14.8	12.2
M. ISSSTE/GDP (D/A)	1.0	0.9	0.9	0.7
/Public (D/B)	2.6	2.1	1.8	1.5
N. IMSS/GDP (E/A)	2.2	2.0	2.3	1.9
/Public (E/B)	5.6	4.7	4.5	4.0
O. Higher/GDP (F/A)	0.3	0.3	0.3	0.3
/Public (F/B)	0.8	0.8	0.7	0.6
P. UAM/GDP (G/A)	0.0	0.0	0.0	0.0
/Public (G/B)	0.1	0.1	0.1	0.1
Q. UNAM/GDP (H/A)	0.2	0.3	0.3	0.2
/Public (H/B)	0.6	0.6	0.5	0.4
R. Research/GDP (I/A)	* *	* *	0.0	0.0
/Public (I/B)	* *	* *	0.0	0.0
S. CONACYT/GDP (J/A)	0.0	0.0	0.0	0.0
/Public (J/B)	0.1	0.1	0.1	0.1
T. OHEUS/GDP (K/A)	0.2	0.2	0.2	0.2
/Public (K/B)	0.5	0.5	0.5	0.4

APPENDIX F (Continued)
SPP VIEW OF PROGRAMMABLE ACTUAL SOCIAL OUTLAY
AS SHARE OF GDP AND PUBLIC SECTOR, 1980-1989
(Billions of Current Pesos and Percent)

Category	1984	1985	1986
MMP			
A. GDP	29,471.6	47,391.7	79,535.6
B. Total Public (1)	13,384.4	20,124.0	40,832.6
C. Social sector	1,660.9	2,676.8	4,469.3
Selected Subtotals			
D. ISSTE	167.5	282.3	444.6
E. IMSS	516.8	806.3	1,516.1
F. Major Higher Educ (2)	79.7	129.5	213.8
G. UAM	8.4	13.9	24.4
H. UNAM	54.9	90.1	160.0
I. Research	4.8	6.5	5.4
J. CONACYT	11.6	19.0	24.0
K. OHEUS (3)	50.4	91.8	159.4
Percent			
L. Social Sector/GDP (C/A)	5.6	5.6	5.6
/Public (C/B)	12.4	13.3	10.9
M. ISSSTE/GDP (D/A)	0.6	0.6	0.6
/Public (D/B)	1.3	1.4	1.1
N. IMSS/GDP (E/A)	1.8	1.7	1.9
/Public (E/B)	3.9	4.0	3.7
O. Higher/GDP (F/A)	0.3	0.3	0.3
/Public (F/B)	0.6	0.6	0.5
P. UAM/GDP (G/A)	0.0	0.0	0.0
/Public (G/B)	0.1	0.1	0.1
Q. UNAM/GDP (H/A)	0.2	0.2	0.2
/Public (H/B)	0.4	0.4	0.4
R. Research/GDP (I/A)	0.0	0.0	0.0
/Public (I/B)	0.0	0.0	0.0
S. CONACYT/GDP (J/A)	0.0	0.0	0.0
/Public (J/B)	0.1	0.1	0.1
T. OHEUS/GDP (K/A)	0.2	0.2	0.2
/Public (K/B)	0.4	0.5	0.4

APPENDIX F (Continued)
SPP VIEW OF PROGRAMMABLE ACTUAL SOCIAL OUTLAY
AS SHARE OF GDP AND PUBLIC SECTOR, 1980-1989
(Billions of Current Pesos and Percent)

Category	1987	1988	1989 (A)
MMP			
A. GDP	193,462.4	395,882.9	494,054.8
B. Total Public (1)	105,609.0	216,188.5	267,995.1
C. Social sector	10,374.0	21,182.7	26,830.8
Selected Subtotals			
D. ISSTE	1,153.3	2,156.5	2,535.7
E. IMSS	3,181.6	6,570.0	9,855.0
F. Major Higher Educ (2)	523.6	1,045.3	1,258.1
G. UAM	67.4	146.8	178.1
H. UNAM	394.2	778.6	942.2
I. Research	10.7	13.4	16.0
J. CONACYT	51.3	106.5	121.8
K. OHEUS (3)	445.6	946.1	1,237.4
Percent			
L. Social Sector/GDP (C/A)	5.4	5.4	5.4
/Public (C/B)	9.8	9.8	10.0
M. ISSSTE/GDP (D/A)	0.6	0.5	0.5
/Public (D/B)	1.1	1.0	0.9
N. IMSS/GDP (E/A)	1.6	1.7	2.0
/Public (E/B)	3.0	3.0	3.7
O. Higher/GDP (F/A)	0.3	0.3	0.3
/Public (F/B)	0.5	0.5	0.5
P. UAM/GDP (G/A)	0.0	0.0	0.0
/Public (G/B)	0.1	0.1	0.1
Q. UNAM/GDP (H/A)	0.2	0.2	0.2
/Public (H/B)	0.4	0.4	0.4
R. Research/GDP (I/A)	0.0	0.0	0.0
/Public (I/B)	0.0	0.0	0.0
S. CONACYT/GDP (J/A)	0.0	0.0	0.0
/Public (J/B)	0.0	0.0	0.0
T. OHEUS/GDP (K/A)	0.2	0.2	0.3
/Public (K/B)	0.4	0.4	0.5

APPENDIX F (Continued)
SPP VIEW OF PROGRAMMABLE ACTUAL SOCIAL OUTLAY
AS SHARE OF GDP AND PUBLIC SECTOR, 1980-1989

(1) Programmable + nonprogrammable.
(2) Total for rows G. through J.
(3) OHEUS = other higher Education and upper secondary.
(4) Share in SPP total.
SOURCE: GDP is taken from Table 8, Column A.; other columns are adapted and calculated from CSG, 1989, pp. 31 and 35.

APPENDIX G
"GENERAL" AND "REVENUE SHARING AND FISCAL INCENTIVE" CATEGORIES
AS SHARES IN GROSS ACTUAL MEXICAN CENTRAL EXPENDITURE, 1964-1989
(Percent)

Year	A. General (1,2)	B. Revenue Sharing & Fiscal Incentives (3,4,5)
1964	20.5	(a)
1965	24.7	(a)
1966	22.6	(a)
1967	20.9	(a)
1968	23.1	(a)
1969	25.6	(a)
1970	23.1	(10.9) (b)
1971	22.0	(10.7)
1972	23.0	(9.0)
1973	31.0	(12.1)
1974	34.1	(14.0)
1975	33.7	(11.9)
1976	37.5	(11.1)
1977	25.6	(9.2)
1978	22.9	(8.4)
1979	25.3	(9.9)
1980	5.6	11.5 (c)
1981	5.8	11.6
1982	1.5	7.7
1983	1.8	10.9
1984	0.8	11.4
1985	2.0	10.5
1986	0.6	7.3
1987	0.4	6.7
1988	0.8	7.6
1989	2.3	6.8

APPENDIX G (Continued)
"GENERAL" AND "REVENUE SHARING AND FISCAL INCENTIVE" CATEGORIES
AS SHARES IN GROSS ACTUAL MEXICAN CENTRAL EXPENDITURE, 1964-1989

(1) Col. A. includes Col. B through 1979.

(2) From inception in 1947 through 1963 this category ranged from 15 to 23 percent of gross actual expenditure.

(3) Included here in Col. A through 1979.

(4) Implicit retrospective separation since 1970 is here calculated from data give in SPP, 1988,p. 13 (see my reorganization of SPP budgetary components in Table 4, part 1).

(5) For sources see notes a, b, and c.

(a) No implicit retrospective separation given in SPP 1988, p. 13.

(b) Percentages in parentheses are included in data for Col. A.

(c) Explicit retrospective separation since 1980 is from CSG, 1989, p.31 (shown her in Table 12).

(d) SPP estimate.

SOURCE: 1964-1970, SHCP, CP, yearly;
1971-1977, Table 7; and NAFINSA, Inc, 1981, PP. 316-318.
1978-1979, JLP, 1982, p. 80;
1980-1989, Table 12.

APPENDIX H

1988

GRADO PROMEDIO DE ESCOLARIDAD PARA LA POBLACION DE 15 AÑOS Y MAS

Posición con respecto a otros estados	Entidad	
1	Distrito Federal	8.56
2	Nuevo Leon	7.66
3	Baja California	7.40
4	Coahuila	6.91
5	Baja California Sur	6.82
6	Sonora	6.80
7	Tamaulipas	6.67
8	Mexico	6.65
9	Morelos	6.55
10	Chihuahua	6.47
11	Jalisco	6.38
12	Sinaloa	6.20
13	Colima	6.14
14	Tlaxcala	6.08
15	Aguascalientes	6.03
16	Durango	5.92
17	Yucatan	5.82
18	Campeche	5.81
19	Nayarit	5.63
20	Quintana Roo	5.45
21	Puebla	5.36
22	San Luis Potosi	5.33
23	Veracruz	5.33
24	Tabasco	5.26
25	Hidalgo	5.17
26	Michoacan	5.15
27	Queretaro	5.08
28	Guanajuato	4.97
29	Guerrero	4.85
30	Zacatecas	4.75
31	Oaxaca	4.29
32	Chiapas	3.79
	República Mexicana	6.25

SOURCE: SEP data provided by José Angel Pescador.

Fuente: Departamento de Pronósticos, DGPr., SEP. 5 Abril 1989

APPENDIX I

PORCENTAJE DE LA MATRICULA DE EDUCACION SUPERIOR
RESPECTO AL GRUPO DE EDAD 20 a 24 AÑOS
SERIE HISTORICA

	POBLACION 20-24 AÑOS DE EDAD (A)	MATRICULA TOTAL EDUCACION SUPERIOR (B)	% B/A
1970	4,287,158	230,451	5.4
1976	5,222.100*	526,504	10.2
1982	6,593,230*	946,531	14.3
1988	7,100,000	1,130.000	16.0

*Datos aproximados

FUENTES: SEP Informe de Labores 1970-71. México, 1971
SEP Informe de Labores 1970-76. México, 1976
SEP Informe de Labores 1980-81. México, 1981
SPP Censo General de Población y Vivienda. 1970
SPP Censo General de Población y Vivienda. 1980

Table provided by José Angel Pescador.

Wilkie, Data, p. 82

APPENDIX J

POBLACION ESCOLAR DE PRIMER INGRESO A LICENCIATURA POR AREAS DE ESTUDIO

AREAS	1970	1975	1979	1980	1981	1988
POBLACION TOTAL	69,882 (100)	126,429 (100)	182,367 (100)	196,569 (100)	198,923 (100)	100.0
Ciencias Agropecuarias	2,425 (3.5)	7,518 (5.9)	15,329 (8.4)	16,688 (8.5)	17,315 (8.7)	9.0
Ciencias Naturales y Exactas	3,766 (5.4)	5,278 (4.2)	6,709 (3.7)	7.770 (4.0)	7,110 (3.6)	3.0
Ciencias de la Salud	10,976 (15.7)	25,815 (20.4)	33,115 (18.2)	33,113 (16.8)	30,149 (15.2)	14.0
Ciencias Sociales y Administrativas	26,936 (38.5)	45,646 (36.1)	72,223 (39.6)	76,952 (39.1)	83,996 (42.2)	42.0
Educación y Humanidades	2,073 (3.0)	3,880 (3.1)	6,944 (3.8)	8,107 (4.1)	6,306 (3.2)	4.0
Ingeniería y Tecnología	23,706 (33.9)	38,292 (30.3)	48,047 (26.3)	53,939 (27.4)	54,047 (27.2)	28.0

Las cifras entre paréntesis son porcentajes.

SOURCE: Table provided by José Angel Pescador.

Wilkie, Data, p. 83

APPENDIX K

SOURCES OF EDUCATIONAL EXPENDITURES

(PERCENTAGES)

	1959	1972	1976	1982	1987
Federal Goverment	62.0	69.1	72.8	80.5	78.5
States	19.8	17.0	16.8	14.4	12.0
Local Goverments	3.3	2.0	1.0		
Private	12.0	10.4	9.4	5.1	9.5
Others	2.9	1.5	-	-	-

SOURCE: SHCP. Cuenta De la Hacienda Pública Federal

Table provided by José Angel Pescador.

Wilkie, Data, p. 84

APPENDIX L

AVERAGE HOURS WORKED WEEKLY,
DAYS OF VACATION TIME,
AND PERSONAL DAYS OFF IN SAMPLE MEXICAN FIRMS AND AGENCIES

Rama	Número de empresas	Jornada	Vacaciones	Días de descanso
Metalúrgica y siderúrgica	5	48	24	5
Cemento	6	48	28	7
Cal	6	48	27	9
Automotores y partes	6	47	28	10
Química	6	47	26	6
Celulosa y papel	4	48	26	7
Alimentos	5	47	25	8
Bebidas enlatadas y envasadas	6	48	26	8
PEMEX	1	40	30	8
IMSS	1	33	24	9
CFE	1	40	24	10
Teléfonos de México	1	38	31	11

Fuente: "Las prestaciones sociales en los contratos colectivos de trabajo de jurisdicción Federal".
Febrero, 1990

APPEDNIX M

INDICES DE EFICIENCIA TERMINAL, NACIONAL Y POR ENTIDAD FEDERATIVA, PARA CADA NIVEL EDUCATIVO.

AÑOS LECTIVOS 1979-80 Y 1988-89 *1

(Efficiency = ~~Sixth Grade~~ Graduates as Percent of Companions Who Entered ~~First Grade~~)

ENTIDAD FEDERATIVA	NIVEL EDUCATIVO *2							
	PRIMARIA		SECUNDARIA		MEDIA SUPERIOR			
					BACHILLERATO		PROFESIONAL MEDIO	
	1979-80	1988-89	1979-80	1988- 89	1979-80	1988-89	1979-80	1988-89
Aguascalientes	55.8%	66.9%	67.5%	76.4%	53.6%	50.2	16.1%	30.2%
Baja California	66.2%	73.0%	69.9%	70.2%	62.2%	50.9%	15.9%	22.9%
Baja Californua Sur	54.3%	86.8%	73.0%	78.0%	47.3%	58.5%	-	29.0%
Campeche	39.4%	43.1%	71.0%	71.6%	20.7%	52.0%	23.2%	34.4%
Coahuila	64.7%	66.9%	73.0%	75.2%	65.6%	57.7%	40.0%	31.9%
Chiapas	23.7%	27.1%	73.6%	70.5%	61.1%	61.8%	36.7%	52.7%
Chihuahua	53.8%	57.2%	69.0%	73.6%	74.1%	50.2%	36.8%	33.3%
Distrito Federal	69.4%	80.3%	68.0%	73.5%	55.2%	56.5%	29.6%	21.6%
Durango	44.4%	55.4%	80.9%	68.2%	61.2%	44.5%	23.0%	74.3%
Guanajuato	45.4%	56.5%	67.9%	69.9%	64.1%	49.0%	34.4%	41.3%
Guerrero	32.9%	41.1%	79.3%	74.9%	91.2%	56.1%	46.6%	57.5%
Hidalgo	39.4%	54.7%	75.1%	76.2%	55.9%	51.7%	53.3%	41.5%
Jalisco	48.0%	56.4%	85.6%	73.0%	165.0%	95.5%	97.8%	71.4%
México	60.4%	68.3%	78.8%	77.9%	131.6%	55.9%	226.7%	27.5%
Michoacán	32.7%	44.0%	73.5%	69.0%	47.9%	50.2%	29.2%	33.9%
Morelos	71.9%	72.3%	79.3%	78.9%	145.2%	55.3%	65.3%	39.0%
Nayarit	50.2%	58.1%	80.6%	76.2%	54.3%	49.4%	42.7%	31.4%
Nuevo León	68.8%	72.3%	71.7%	82.1%	48.5%	56.6%	11.7%	44.5%
Oaxaca	33.2%	40.7%	67.8%	74.9%	55.0%	54.4%	24.7%	31.4%
Puebla	42.0%	53.1%	76.4%	77.7%	87.1%	151.0%	33.0%	41.1%
Queretaro	47.7%	65.6%	72.0%	77.3%	46.3%	59.0%	13.6%	22.3%
Quintana Roo	42.2%	54.0%	74.8%	74.5%	47.8%	42.6%	-	31.9%
San Luis Potosí	45.1%	54.0%	66.7%	56.8%	76.5%	65.6%	-	40.5%
Sinaloa	55.6%	54.3%	74.7%	74.0%	64.6%	54.4%	29.9%	23.1%
Sonora	58.8%	62.8%	70.6%	73.2%	56.3%	51.3%	33.3%	26.9%
Tabasco	31.4%	50.1%	75.0%	76.9%	50.2%	54.1%	91.3%	48.9%
Tamaulipas	60.5%	65.3%	71.2%	76.3%	70.9%	69.4%	32.4%	30.7%
Tlaxcala	54.4%	71.3%	79.2%	80.7%	47.6%	51.1%	26.9%	32.1%
Veracruz	40.0%	43.6%	83.7%	75.9%	67.1%	14.2%	35.2%	26.7%
Yucatán	31.5%	43.2%	78.2%	74.7%	56.1%	53.6%	23.3%	28.3%
Zacatecas	39.4%	53.5%	67.5%	67.2%	52.2%	51.7%	58.0%	31.4%
República Mexicana	48.1%	55.3%	73.6%	74.2%	68.5%	57.1%	33.8%	35.9%

*1 FUENTE: Departamento de Pronósticos de la Dirección Gral. de Planeacion, Programación y Presupuesto. SEP. México, May. de 1989.

*2 .- No se cuenta con información para el nivel superior .

Wilkie, Data, p. 86

APPEDNIX N

PUBLIC AND PRIVATE SCHOOL ENROLLMENTS IN MEXICO, 1976-1990

	1976 1977	1979 1980	1982 1983	1986 1987	1987 1988	1988 1989	1989 1990
PREESCOLAR	601.9	854.0	1 691.0	2 547.3	2 625.7	2 668.6	2 851.2
PRIMARIA	12 026.2	14 126.4	15 222.9	15 124.2	14 768.0	14 656.4	14 675.3
CAPACITACION PARA EL TRABAJO	244,4	254.4	407.3	407.7	446.5	440.0	449.1
SECUNDARIA	2 109.7	2 818.6	3 583.3	4 179.5	4 347.3	4 355.3	4 400.4
PROFESIONAL MEDIO	81.1	97.3	301.5	359.1	426.2	427.7	455.7
BACHILLERATO	670.1	942.9	1 233.9	1 538.1	1 586.1	1 642.8	1 737.2
NORMAL	136.0	290.8	324.1	191.1	132.1	126.7	124.9
SUPERIOR	569.3	760.2	918.8	1 025.0	1 112.8	1 130.0	1 137.6
POSGRADO				42.5	41.4	45.1	49.0
T O T A L	16 444.7	20 144.6	23 682.8	25 436.7	25 444.7	25 447.7	25 880.4

SOURCE: MMH, 1986; and CSG, 1989, p. 165.

Wilkie, Data, p. 87

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SEP Secretaría de Educación Pública.

SEP, CEGE SEP, Compendio Estadístico de Gasto Educativo.

SHCP, CP Secretaría de Hacienda y Crédito Público, Cuenta Pública.

SPP Secretaría de Programación y Presupuesto.

SPP/DGPES/DAM SPP, Dirección General de Política Económica y Social, Dirección de Análisis Macroeconómico.

SPP, 1988 SPP, Estadísticas de Finanzas Públicas, 1970-1985.

SPP, CP SPP, Cuenta Pública.

SPP, PE SPP, Presupueso de Egresos.

SSA, DGPOP Secretaría de Salud, Dirección General de Programación, Organizacion y Presupuesto, Computer Printouts.

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