

UNIVERSIDAD AUTONOMA METROPOLITANA MEXICO

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This work presents the following: 1) a description of the structure of the Universidad Autónoma Metropolitana (UAM); 2) some elements of Mexican government policy which influence the system of quality assessment used by the UAM; 3) the strategy of the UAM with respect to Mexican government policies for quality assessment of higher education; 4) a description of the mechanisms of quality assessment of individual academics of the UAM; 5) the impact of the individual evaluation of academics; 6) three experiences of institutional quality assessment in the three separate campuses that comprise the UAM; 7) conclusion.

1. THE UNIVERSIDAD AUTÓNOMA METROPOLITANA

The Universidad Autónoma Metropolitana is one of the most important public universities in Mexico in the areas of both teaching and research; it offers 58 undergraduate degrees and 35 graduate-level degrees in highly diverse areas of knowledge, and, in addition, promotes cultural activities and social assistance to underserved populations.

The UAM was founded in 1974 and since its constitution it has adopted a decentralized form of operation. Following this principle, it is composed of central administrative offices, called the General Rectorship of the University and by three decentralized administrations that govern the three campuses or “Units” where academic life is developed, named according to their geographical locations in the metropolitan area of Mexico City: the UAM-Azcapotzalco, the UAM-Iztapalapa and the UAM-Xochimilco. The General Rector administers central aspects of the entire university, while academic work is developed in the Units. Each campus is directed by a Unit Rector who has legal, directive and administrative capacity to make decisions on academic and organizational operation, although in practice there is quite fluid collaboration and hierarchic dependence between the directive organs of the Units and the General Rector.

The UAM was founded following the student conflict of 1968 which, in addition to strongly questioning the authoritarian regime of the Mexican State, had also revealed some basic problems of higher education, such as the lack of adequate opportunities for admission; the excessive centralization of the higher educational system in a small number of institutions, such as the Universidad Nacional Autónoma de México (National University of Mexico, UNAM) and the Instituto Politécnico Nacional (National Polytechnic Institute, IPN); and the lack of governmental impetus in support of research in the areas of science and technology. The UAM was created in 1974 as an alternative university model, not only in order to attend the expansive social demand for higher education, but to emphasize the connection between teaching and research in the university.

From the beginning certain elements were defined that would mark its alternative nature. The first was the decision to create a decentralized university, with a very high composition of full-time professors, which implied that the operation of the university should basically revolve around the figure of the full-time professor, and not around part-time professors who come only to give classes, as occurs in other universities in Mexico. The underlying assumption is that this type of full-time career academic, called a “professor-investigator” should be capable of simultaneously carrying out teaching and research responsibilities, so that the education imparted to students is connected with the production and dissemination of innovative knowledge.

The other particularity of the UAM is its departmental organizational structure, in the same style as universities in the United States, with the purpose to establish a close relationship between teaching and research, which contrasts with the traditional model employed by other universities in Mexico which are organized in accordance with the continental European system of schools and faculties. The basic academic unit of the UAM is the *department*, which in turn is subdivided into areas that group professor-investigators based on common research interests. A group of departments form a disciplinary *division*¹: for example, the Division of Social Sciences and Humanities brings together at least three departments -- Sociology, Humanities, and Economics and Administration (each of these departments is, in turn, divided in research areas). The departmental model tries to promote an interdisciplinary orientation, favoring horizontal contacts between professors from different departments and divisions, in order to diversify the university’s curriculum offerings.

The course schedule works on the quarter system, with three quarters of classes per year. All of the degree programs have a projected duration of four years, except for Medicine which requires five years.

The regulations of the UAM also recognize the importance of incorporating the professor-investigator in decision-making processes, and therefore define a form of government based on collegiate organs. The *Academic College* is the supreme collegiate authority of the entire university, and is made up of 34 members from the three units: the General Rector and Unit Rectors, Division Chiefs, and representatives of the academic personnel, the students and the administrative workers. The *Academic Councils* constitute the supreme authority in every Unit, and there are three, one for each Unit of the UAM. They are made up of the Rector, Division Directors, Department Heads, and representatives of the academic personnel, the students and the administrative workers in each given Unit. The *Divisional Councils* are the supreme collegiate authority of each Division and there are nine in the entire UAM, three per unit. They include the Division Director, Department Heads, and one representative each for the academics and the students of each Department.²

According to the values governing its creation, the UAM seeks a balance between contribution to scientific development, a commitment to giving attention to the most pressing social problems of Mexico and the advancement of applied sciences and engineering. Each Unit puts special emphasis on one of these three aspects, without neglecting the other two. There is a Division of Social Sciences and Humanities in each of the three Units, in accordance with the idea of an integrated, humanist formation of the student.

Other than this, every campus or unit has a different profile. The Iztapalapa Unit has put great emphasis on the development of knowledge in basic sciences, biotechnology and the humanities. The Azcapotzalco Unit has a reputation for applied research, especially for important development in the areas of engineering and industrial design; and its Law School, which has an innovative curriculum, also occupies a significant place.

The Xochimilco Unit, in turn, has its own unique organizational structure, different from the general model of the UAM -- the Modular Educational System -- which tries to establish an in-depth modification of all of the elements of the educational process by means of a social redefinition of professions, a reorientation of institutional objectives toward attention to the problems that affect large sectors of the country, and, accordingly, a redefinition of the curriculum towards attention to such problems, with emphasis on the design and application of new ways of operating a system for teaching and learning. The modular system places particular emphasis on interdisciplinary studies, and attempts to shorten the distance between student and professor through small-group, interactive teaching; in addition it tries to integrate students into research experiences right from the beginning of his or her program.

As was previously mentioned, most of the academics of the UAM are full-time; thus of a total of 3 741 professors in 1995, 64 per cent were full-time, 24 per cent of half-time and only 12 per cent part-time. The majority of full-time professors (69 per cent) are professors in the highest category, that is, Full Professor, while half-time and part-time professors are more concentrated in lower levels, such as Associate Professor, Academic Technician or Teaching Assistant.

There are more administrative workers than academics, 4 260 in total. At the end of 1995 there were a total of 39 996 students at the UAM; 97.4 per cent in undergraduate programs and 2.6 per cent at the graduate level.

The UAM, as a public university, receives most of its funding from the federal government, although it also looks to other sources. In 1995, 93.8 per cent of its income came from the government. Its total budget in that same year was approximately \$109 883 000.

2. QUALITY ASSESSMENT OF HIGHER EDUCATION AND GOVERNMENT POLICY

In Mexico, historically, most of the social demand for higher education has been satisfied by public universities. They enjoy a legal autonomy that is traditional in Latin American universities since the beginning of this century, and which implies that with respect to the government, universities have very broad freedom to determine both their academic policies and make decisions around the administration of the financial resources that they receive. Apart from cases of state use of police force against the universities, which have not been frequent in Mexico and have only occurred in situations of political crisis like that of 1968, the principal mechanism of authority in the government-university relationship is the determination of budgetary allocations by the government. Although educational policy for higher education sector has some formal liaison organizations between government and universities -- for example, the National Association of Universities and Institutes of Higher Education (ANUIES) -- it is a well known fact that the university budgets and the degree of conformity of the universities with the guidelines of government educational policy are negotiated directly by means of informal relationships between universities (individually considered or as a group) and educational authorities.

In the 1970s government policy tried to group universities and other higher education institutions in a relatively homogenized system. With this objective, the creation of a national system of planning for higher education was pushed at the end of that decade. However, the results were limited because there was no true development of planning in practice at most institutions of higher education, and because there was great fragmentation and heterogeneity within the system.

After 1982 the situation became worse as a result of the economic crisis and the sharp drop in the budget of the public universities, which especially affected the wages of academics and administrative personnel. This coincided with a time in which the social usefulness of public spending in higher education was being questioned by some intellectuals and economists, and sometimes even by governments of different countries. The cutbacks caused many academics to abandon Mexican public universities in order to work in the government, the private sector or in private universities, which in this period registered a notable growth and were able to pay competitive wages to their personnel³. Other academics remained in the public universities, but their commitment to the work was lessened as most were forced to take on second jobs to supplement their income.

One cannot help thinking, in light of the predominant policy orientation in the 1980s, that these facts were accepted by the government as a form of market restructuring of the academic community, because it forced academics to exert a greater labor effort. (Through somewhat different methods and based on different values this idea has been conserved in the current policy of quality assessment of higher education, which pushes academics to concentrate on productivity.) In addition, both in the government and even within the universities themselves the impression was created that under the umbrella of leftist unconformity characteristic of the 1970s, relaxed attitudes towards academic life had been tolerated or even promoted, and had led to a fall in the quality of educational services. In this sense the loss of personnel could be also seen as an academic “housecleaning”. However, there were obviously no official statements in this sense, and besides said desertion did not necessarily involve only the less qualified personnel, but also higher-level academics who were more likely to find labor alternatives. On the other hand, the dedication of those academics who remained in the educational system deteriorated out of the need to work in several institutions at the same time.

At the end of the 1980s the economic situation improved, bringing the budgetary increases for higher education. In addition, the governmental attitude of misgiving toward higher education was gradually changing, and at the same time consciousness was growing around the fact that the desertion of qualified academics was causing potentially irreversible damage to the nation’s cultural capital. So, in this new stage government policy tried to ensure greater selectivity in the orientation of expenditures for higher education, seeking a break with the principle of “standardization of salaries” that had been imposed in the 1980s which based policy on the principles of the same pay for the same position, reducing the differentiation of salaries between higher and lower level job categories, and a single salary scale for all public universities. The new point of policy orientation became the quality and relevance of higher education, based on a principle of differences in pay in accordance with individual performance and productivity. Beginning in 1990, the government offered new funds for higher education, which have made it possible to perceptibly increase the income of academics. However, salary increases for personnel have been specified as extraordinary payments in addition to normal wages, both in order to prevent union pressures that try to homogenize wage levels, and in order to prevent future impact on the retirement and pension systems.

Thus, starting in 1989-1990, progressively, pay increases for academic personnel follow a double logic: on one hand, normal increases to the basic wage that respond to the restrictions created by the government’s anti-inflationary economic policy; and on the other, increases by way of special incentives for productivity which in some institutions, including the UAM, can add between 100 and 200 per cent to the base wage. This second income is granted variably as a reflection of the annual productivity of each individual, according to concrete quality assessment mechanisms that vary in each institution of higher education.

The foregoing is related to government implementation, starting in 1989, of a National System of Quality Assessment of Higher Education run by the National Commission for Evaluation (CONAEVA). The system has three operative levels: institutional self-assessment, quality assessment of academic programs by peer review committees and quality assessment of the higher education system by the CONAEVA. Depending on the fulfillment by the higher education institutions (HEI) of the requirements of information resulting from self assessment the educational authorities decide the allocation of funding, and the peer review committees provide inputs in order to improve the quality of programs.

One should also bear in mind the existence of other governmental agencies which have responsibility for the quality assessment of certain aspects of higher education, such as the National Council of Science and Technology (CONACYT), founded in the early 1970s, which evaluates and finances specific graduate programs and research projects, and the National System of Investigators (SNI), founded in 1984, which evaluates and pays an extra monthly remuneration to researchers considered to be “distinguished” at the national level.

With all this, quality assessment has become the key to planning in higher education, because institutions of higher education need to fulfill certain goals of educational policy more clearly in order to receive additional government funding.

Another factor which has been very influential in the design of the new policy and in the subsequent reaction of public universities is the signing of the North American Free Trade Agreement (NAFTA), which entered into effect in January 1994, but had been under negotiation since 1990. Although NAFTA does not immediately integrate the educational systems of the three member countries (Mexico, the United States and Canada), it is obvious that this is a future possibility. Thus, internal heterogeneity of the Mexican system of higher education is added to a super-heterogeneity marked by the sharp differences between the systems in United States and Canada on the one hand, and that of Mexico on the other, raising particular concern on the part of the leaders of the public universities.

3. THE STRATEGY OF THE UAM WITH REGARD TO QUALITY ASSESSMENT

In the study of quality assessment of higher education in Mexico, the UAM is significant because it illustrates, perhaps, the most interesting case of interaction between government policy and a university strategy designed to take advantage of the same.

Toward 1989, the growing commercial opening of Mexico toward foreign markets made it evident to the leaders of the UAM that quality assessment would not only be important in order to receive budgetary support from the government, but also to ensure the competitiveness of Mexican institutions of higher education in the future with respect to those of other countries. Hence the position of the UAM towards the announcement of the government’s quality assessment policy at the beginning of the 1990s was of collaboration with the government in, probably, both a defensive and a competitive sense.

In the defensive sense, this position involved reaching a pragmatic agreement with the government allowing the university to take the quality assessment mechanism into its own hands, thus avoiding the possibility that some other mechanism that the university had not designed and did not control would be imposed. This coincided with the emphasis on one of the three levels of quality assessment defined by the CONAEVA, the level which, in fact, has operated with the most efficiency to date, that of university self-assessment. At the same time, this implied giving up the possibility of rejecting

quality assessment on the basis of the rhetorical defense of the legal autonomy of the public universities, an option that would have also effectively closed off the possibility of obtaining new state financing.

In the competitive aspect the UAM also had reasons to accept government policy. In this sense, it is possible to think that one of the non-explicit objectives of the official policy was to strengthen some specific institutions, including the UAM, by means of financial mechanisms linked to quality assessments, in order to promote a relatively more harmonious development of the higher education system. With this, the government restarted a project that had given rise to the foundation of the UAM in 1974, a project to generate another important public university in Mexico's capital, to relieve the excessive social demand for higher education on the UNAM and the IPN, and proposing at the same time an alternative model of university organization different from the traditional pattern embodied by the UNAM and other universities.

In an attempt to lessen the tensions with the government that are always latent in public universities, the strategy adopted by the authorities of the UAM was to construct their own system of internal quality assessment, sufficiently solid to be respected by national and even international external evaluation authorities.

The UAM was the first Mexican higher education institution to implement the new quality assessment policy, and also the first to publish the results of their internal evaluations, operating under the criteria that legal autonomy does not imply independence from public opinion. Quality assessment instruments were designed that combined cumulatively to form a complex and unique system. In some periods, the UAM even financed payments for academic productivity resulting from the recently implemented quality assessment mechanisms with its own resources, while financial support from the government was still being negotiated.

The system has two broad dimensions. With regard to the quality assessment of individual academics, the evaluation mechanism directly linked to salary supplements, a single set of procedures was adopted for all three Units. This set of procedures is detailed in section 4. Concerning institutional quality assessment, each Unit was permitted to adopt its own method of self-evaluation, in accordance with its intellectual traditions and organizational identity. This is analyzed in section 6. In addition, the authorities of the UAM have supported long-term research by academic groups specialized in education, quality assessment and public policy, undergraduate alumni at work (Valenti, Varela, González, 1996; 1997), quality assessment in post graduate education (Bazúa and Valenti, 1993), and the educational process (de la Garza, 1991). The results of these research projects have partially oriented the decisions and academic policies made by the institution in order to promote change.

In higher education in Mexico the UAM has thus become a reference institution on the subject of quality assessment. Its quality assessment system is original, and is imitated by other institutions, although it has continued to have unique characteristics. In addition, it has received compensation in the form of privileged allocations of government funds, which, in making the scale of academic salaries at the UAM quite competitive, has fulfilled the double purpose of preventing the attrition of qualified personnel while also giving special importance to the university, when contrasted with other institutions that have not been rewarded in the same measure. All of this does not, however, avoid certain problems in the operation of the system of quality assessment of the UAM, as we will see shortly.

4. THE QUALITY ASSESSMENT OF INDIVIDUAL ACADEMICS

4.1. Hiring and promotion of the professor-investigator

Since its founding the UAM has defined that the majority of its academics should be both teachers and researchers. Hence, professors who joined the UAM in its first stage enjoyed tenure in their positions, right from the moment of being hired. However, after only a few years the need to limit the ability of authorities to make discretionary decisions concerning hiring and labor conditions was planted. In this context the Independent Union of Workers of the UAM (SITUAM) was created, in which academics participated actively.

In the 1970s the SITUAM achieved two objectives that in later years would forge a difficult relationship with the authorities of the university and also with the academics. The first was the right of the union to participate by means of Joint Commissions in the processes of recruitment and promotion of academic and administrative university personnel; the second was the right of the SITUAM to be recognized as single union that represents both academics and administrative workers of the UAM (Gatica, 1994). Due to both inexperience and a concern for giving the best possible conditions to the members of the new university community, while criteria and procedures for hiring academic personnel were fine-tuned in an objective way, the establishment of requirements to insure the quality of the work of the personnel did not receive equal attention, subsequently creating performance problems.

The prerogatives won by the Union on the Collective Work Agreement were seriously questioned with the reform of the Federal Constitution done during July of 1980, the change consists to give the universities the authority to define unilaterally the terms of hiring, promotion and incentives for the academic personnel. Besides in October of the same year was established in the Wok Federal Law the principle upon which the universities have the right to regulate all the academic matters.

With this context the concept of a strong union involvement in academic matters was visualized by some university authorities as a negative factor for strategic decision-making in matters of institutional development. Hence, in 1981 the authorities of the UAM went to court, demanded and obtained the nullification of the clauses of the Collective Work Agreement that established the intervention of the union in the procedures of hiring and promotion of the academic personnel. Thus it remained firmly established that the Academic College would be the supreme authority in deciding policy around academic personnel. In addition, Reporting Commissions were created in order to carry out the process of quality assessment of academics, according to the directions defined by the Academic College. There are several Reporting Commissions, and they encompass different disciplinary areas: Humanities; Social Sciences; Economic and Administrative Sciences; Biological Sciences; Health Sciences; Engineering; Basic Sciences; Analysis and Methods of Design; Production and Context of Design. Each Reporting Commission is composed of nine members (three for each Unit of the UAM), six elected by secret ballot by academics from the discipline to be evaluated, and three designated by university authorities.

From an operational point of view the quality assessment of academics remains entrusted to the Reporting Commissions, which have broad functional autonomy in the execution of their task, with two specific limitations. The first is that the Commissions must adhere to quantitative measures fixed in a special scale which lists almost all of the separate activities into which academic life can be broken down. On this scale, each activity has a range of maximum and minimum scores that serve for the purpose of quality assessment. The principal categories on the scale are: research; teaching;

academic management and co-ordination of teaching and research programs; working on the quality assessment itself; participating as a representative to one of the collegiate organs; cultural preservation and diffusion; acquisition of academic degrees; and the practice of specialized professional tasks. The highest scores are granted for studies published and academic degrees obtained. As an example, an article published in a journal qualifies for between 880 and 3 300 points; a book, depending on how long it is, fluctuates between 2 200 and 6 660 points; a professor with a teaching degree who finishes a doctorate gains 8 800 additional points. Teaching, on the other hand, obtains fewer points depending on the number of hours of class given annually and whether classes are at the undergraduate or graduate level.

The second limitation to the autonomy of the Reporting Commissions is that all of their decisions are reviewed by an Appeal Commission that verifies that they have been issued in accordance with university law. Professors can request a formal review of the judgments issued by the Reporting Commissions before the Appeal Commission. The UAM is thus one of the few institutions of higher education in Mexico in which appeal of judgments made by quality assessment committees is admitted by regulation. Under this scheme the participation of the union in the hiring and promotion process of academics is limited to some minor issues.

4.2. Fellowship and incentive programs of the UAM

Given that it was founded with the idea of creating a modern university, the UAM planned, from the first, to carry out quality assessment activities. But two periods can be clearly distinguished in this regard, the first stretching from the UAM's foundation in 1974 until 1988, during which quality assessment acted predominantly as a formality and had limited impact on academic life, and a second period, initiating in 1989, in which quality assessment has had a truly vitalizing effect.

In the first period, quality assessment concentrated on the competition to attract new academics and the periodic review of plans and curriculum. Research projects and their results were also evaluated, but under merely formal criteria. Academics were evaluated in order to decide about their promotion to higher-ranking positions, but the effort was limited, because as with little differences in salary between positions, professors had few incentives to demand review.

In contrast, since 1989 the quality assessment process has become a central element in mobilizing academic life, especially with regard to the linking of individual evaluations to economic rewards. The new programs of incentives and fellowships try to reward an academic's intensive dedication to university tasks by measuring it with indicators such as classroom-hours, research published, acquisition of graduate-level degrees, and service on committees and in academic management positions.

The program is designed in such a way that professors can enter into a variety of different programs detailed below, or else can opt for some at the expense of others, intensifying one of the two substantive activities, teaching or research. There are conditions governing the granting of fellowships which try to guarantee that a balance is maintained between teaching activity and research, however, this is not easy to achieve, as we will see in section 5.

Another factor to take into account is that, to the extent that the chosen term is "fellowship" and not "wage", legally the allocation of money on the basis of individual evaluations remains outside the sphere of bilateral negotiation, and accordingly the union cannot intervene.

For the purpose of protecting the resulting compensation from inflation, and depending on the fellowship or incentive program, the payments are either calculated in reference to the minimum wage which is adjusted periodically in the Mexico City metropolitan area by the government, or to the individual's base salary, which is subject to annual increases.

The five principal programs for payments associated with individual quality assessment are: Incentives for Teaching and Research, the Fellowship to Support the Permanence of Academic Personnel, the Fellowship in Recognition of the Teaching Career, Incentives for Academic Degrees and Incentives for an Outstanding Academic Career. Most of these incentives -- except for the Teaching Career Fellowship and Incentives for Academic Degrees -- are obtained through a periodic review played out before the Reporting Commission in the academic's disciplinary area.

There are also annual awards given to recognize significant work in research or teaching in some areas of study. These are less important as compared with the five above mentioned programs, and for this reason they will not receive a detailed treatment.

In order to understand the operation of the individual quality assessment mechanisms, it is necessary to take the academic structure of the UAM into account. There are three broad categories for professors: Assistant Professors, Associate Professors, and Full Professors, and within each category exist subcategories identified by letters. Thus there are three types of Assistant Professors, identified with the letters A, B and C; four types of Associate Professors, A, B, C and D; and three types of Full Professors, A, B and C. The highest level is that of Full Professor C.

In addition there also are two categories of Academic Technicians (who work primarily in laboratories), with their respective subcategories: Auxiliary Technicians A, B and C; and Full Technicians A, B, C, D and E.

In accordance with the quantity of daily working hours, contracts can be full-time, half-time, or part-time. With regard to duration, contracts can be of indeterminate length, that is to say "definitive" -- the equivalent of tenure -, or they can specify the date of termination, that is, without tenure. The great majority of the contracts are full-time and definitive.

Academics with non-definitive contracts (without tenure) are excluded from the System of Fellowships and Incentives. The lower academic categories (Assistant Professors and Auxiliary Technicians) are also excluded; however there is an exception in the case of the Incentive for Teaching and Research, for which full-time Assistant Professors can apply.

In fact, since these fellowships and incentives try to avoid human resource loss or dispersion, they function on the condition that professors devote full time to the University, allowing nine hours a week to be devoted to tasks carried out in other institutions. However, there also is a special exception in the case of the Fellowship in Recognition of the Teaching Career, which can be granted to half-time professors who are not required to give exclusive dedication to the UAM.

4.3. The Incentive for teaching and research

The first economic incentive resulting from the quality assessment of individual academics to be established in the UAM was the Incentive for Teaching and Research, which first went into effect in 1989. It was also the first mechanism of this type applied in Mexico's public higher education system, since, as has already been explained, the UAM was a pioneer in these initiatives. As its name

indicates, this program takes the academic's previous year's activities of teaching and research into account in order to determine if an extra annual bonus will be paid for exceeding a certain minimum score, in accordance with the criteria established by the scale. There are three different levels different of remuneration according to the score obtained, and within each of these levels there are also monetary differences, because the payment is calculated according to the base wage of the academic, which varies depending on the labor category an individual occupies (see Table 1).

Table 1

Scaled Score	Method of calculation	Bonus ⁴
5 000	1.5 x base salary	\$570 to \$1 185
8 000	2.5 x base salary	\$950 to \$1 972
11 000	3.5 x base salary	\$1 330 to \$2 760

All full-time academics in the Assistant, Associate or Full Professor categories, as well as Full Technicians can request this assessment.

4.4. The fellowship to support the permanence of academic personnel

The second program of wage incentives based on quality assessment was born in 1990: the Fellowship to Support the Permanence of Academic Personnel. It affects full-time, tenured academics, in the categories of Associate and Full Professors and Full Technicians. It consists of a monthly payment in addition to the basic wage, calculated on the basis of the minimum wage and varying according to the labor category of the academic. Thus, for example, an associate professor can receive a minimum of 0.5 additional minimum wages per month (\$40 approximately) while the same figure for a full professor can go up to 5.5 minimum wages per month (\$440 approximately). The objective of increasing the differentiation of wages between labor categories is to reward the more highly qualified personnel and thus avoid attrition.

In calculating the scoring for this Fellowship all of the activities included on the scale, with the restriction that they be carried out "in and for the University" must be recorded. This means to say that activities that the professor carries out in other institutions are not recorded, unless there is an agreement of collaboration between the UAM and the other institution. In order to obtain the Permanence Fellowship, the academic must demonstrate an annual minimum number of points in accordance with the scale, depending on his or her category. For example, an associate professor should have an annual minimum of 3 500 points; and a full professor, 5 000 points. To give a clearer idea of the effort required, since the Fellowship is granted for at least two years at a time, for a full professor to get 10 000 points over two years, for example, he or she would have to publish at least three articles of intermediate level, earning around 6 300 points; dictate at least three courses per year adding 2 000 points over two years; present papers in two specialized congresses, for 440 points; and have written at least two cultural diffusion articles. (In this example, the academic would not have to undertake any committee, management or quality assessment work.)

Since the objective of this incentive is also to strengthen teaching, in order to get the Fellowship, it is not enough obtain the required score by means of any combination of activities contained on the scale; it is compulsory to give at least one course each year.

The Permanence Fellowship is obtained through a competitive scoring system and is granted, on a case by case basis, for a two to five year term, after which if the academic wishes to maintain it, he or she must reapply to the competition. The length of this Fellowship aims to ensure stability in the extra monthly payments, and also give the academic who carries out research or other long-term work the possibility of doing so without being pressured to present annual results.

4.5. The fellowship in recognition of the teaching career

The previous mechanisms, which were the first to be applied, did not greatly favor teaching, because the scale provides greater rewards for other activities, especially publications and even academic management activities. Hence, in 1992 this fellowship was created to complement the others. It provides rewards for teaching activities carried out over the year prior to the time of the quality assessment. All academics with tenure, full-time or half-time, belonging to the categories of Associate and Full Professors and Full Technicians can apply for this award.

Currently this economic incentive is paid in variable quantities, depending on the number of class hours given over the year and the category of the professor, so that a full professor, for example, receives more than another of lower rank, although both may have the same number of teaching hours.

When this fellowship was established in 1992, the UAM began to apply a quarterly survey of students in order to find out their opinion concerning the classroom performance of their professors. In addition, at the end of each quarter each professor was required to present a report on the development of each of his or her courses. This type of quality assessment is very unusual in Mexican public universities, in fact, in the UAM it was only accepted by the professors because of the fact that it was associated with the payment of the teaching incentive.

The granting of the Teaching Career Fellowship has an ad-hoc regimen of quality assessment, since it does not depend on the Reporting Commission, but rather on the Division Councils, and the form of calculation is not based on scaled scores, but rather classroom hours. Also taken into account, although not decisively, is the content of student evaluations, the professor's own quarterly reports and the opinions of the Department Chief and the Program Co-ordinator concerning the performance of the professor.

Together with the Incentive for Academic Degrees, which will be discussed below, the Teaching Incentive is one of the easier incentives to obtain and is successful in guaranteeing that a large number of academics, even those who do not carry out research, have access to extra remuneration's subject to quality assessment. At the same time it tries to strengthen the activity of the university that has the greatest scope and social demand: teaching.

4.6. The incentive for academic degrees

For the purpose of promoting the professionalization and improvement of its professors, in 1995 the UAM created the Program of Incentives for Academic Degrees, which establishes an additional bonus

with relation to the highest degree obtained (undergraduate, masters or doctorate). This is only granted to full-time, tenured academics in the categories of Associate and Full Professor, or Full Technician, on the condition that the individual has also achieved at least one of the two fellowships mentioned above (Permanence or Teaching Career).

This incentive provides an extra monthly stipend that depends not only on the academic degree held, but also on the labor category of the individual. The variation is very large, granting a high of around \$440 per month to professors of the highest labor category (Full Professor C) who hold doctoral degrees, an intermediate benefit to academics with masters degrees, and a very small compensation for professors with undergraduate degrees. However, the advantage of this incentive is that it is easier to obtain, because it does not require any procedure of evaluation aside from presenting one's diploma and achieving simultaneously at least one of the two fellowships (permanence or teaching carrier). Thus, along with the Teaching Career Fellowship, it is of large scope. Indeed, given their accessibility, these two types of incentive have functioned in a latent way to generate consensus regarding the quality assessment process, and to insure that extra payments are not over-concentrated in reduced sectors of the academic body, inducing excessive economic differences between professors.

4.7. The incentive to outstanding academic trajectory

The Incentive to Outstanding Academic Trajectory is only granted to full-time academics of the highest category. As already mentioned, the scale of categories and academic levels has a maximum limit, that of Full Professor C or Full Technician E. In 1994 the maximum had already been reached by 34 per cent of the academics of the UAM who participate in the system of individual evaluation. In this sense, it was necessary to look for a mechanism to promote the continuous improvement and productivity of academics once they reached the highest point on the scale. Since 1990, an incentive was established for high-level academics who continue their intense academic activity, making it possible for them to accumulate points. The mechanism that was designed for this is a bonus payment which consists of an additional minimum wage per month, for every additional 22 000 points earned according to the scale. Points for a Full Professor C with a full-time tenure contract, can accumulate up until reaching a maximum of 121 000 points and 5.5 additional minimum wages (\$440 approximately). These additional amounts are granted permanently, on the condition that the individual has also achieved at least one of the two fellowships mentioned above (Permanence or Teaching Career).

The Incentive to Outstanding Academic Trajectory is earned by a mechanism similar to a competition, presenting respective merits before the Reporting Commissions

5. THE IMPACT OF QUALITY ASSESSMENT OF INDIVIDUAL ACADEMICS

5.1. The incorporation of academics into quality assessment and fellowship and incentive mechanisms

Now that the complex program for fellowships and incentives has been described, it is easy to understand why we stated that starting in 1989, despite its ups and downs, quality assessment has become a vitalizing element in the institutional life of the UAM. If the number of professors who have obtained fellowships and incentives from 1989 to 1994 is examined a growing trend toward

participation can be observed: in 1989 only 9 per cent of the professors with the right to request the Incentive for Teaching and Research obtained it, while in 1994 this figure had reached 33 per cent⁵.

A still greater number of professors participate in the Permanence Fellowship; while in 1990 only 18.2 per cent of full-time academics obtained it, in 1994 this number rose to 50 per cent. With regard to the Teaching Career Fellowship it is, as already noted, a program that encompasses the great majority of academics: 78 per cent of the total with the right to request it obtained it in 1994; and the Incentive to Outstanding Academic Trajectory has been achieved by 47 per cent of the higher-level academics (Full Professors C). Finally, the Incentive to Academic Degrees is of almost automatic acquisition, provided that the beneficiary has been capable of earning the Permanence or Teaching Career Fellowship.

5.2. Effects on income and the differentiation of labor categories

Quality assessments have produced a significant rise in faculty income, but also a notable differentiation within the academic body, since income is now highly segmented, depending on up to six different factors: the basic wage plus the five incentive mechanisms described in the previous section. The three decisive points for differentiation are productivity, academic degrees, and job title or category. Those who produce more earn more, but the gain is greater if they hold a doctoral degree and if they are located in the higher labor category, that is, Full Professor C. Some analysts have called this phenomenon “individualized wages.”

The following example can help better understand the scope of the improvement of income and the amplitude of the differentiation. Let us take the case of a professor-investigator, with exclusive dedication to the UAM, with an even division of time between teaching and research activities and an average of 16 classroom hours a week for every quarter of the year⁶. We also assume that the academic in question has obtained all of the fellowships and incentives offered by the system of individual quality assessment. In 1994, approximately 33 per cent of the full-time professors of the UAM with the right to participate in the individual quality assessment were in such position, and the result in income in comparison with the other categories of academics is observed in the following table 2.⁷

Table 2. A comparison of the impact of fellowships and incentives on monthly income of academics by degree and category (US Dollars)

	Teaching Fellowship	Permanence Fellowship	Teaching and Research Incentive	Academic Degree Incentive	Out Standing Career Incentive	Base Salary	Total Supplements	Grand Total
Associate Professor A Undergraduate Degree	24	40	79	10	N.A.	380	153	533
Associate Professor A Master Degree	24	40	79	40	N.A.	380	183	563
Associate Professor D Undergraduate Degree	96	160	112	40	N.A.	540	N.A.	948
Associate Professor D Master Degree	96	160	112	80	N.A.	540	N.A.	988
Full Professor A Master Degree	148	240	120	120	N.A.	575	N.A.	1 203
Full Professor A Ph.D.	14	240	120	240	N.A.	57	748	1 323
Full Professor C Master Degree	27	440	164	220	80	79	1 176	1 966
Full Professor C Ph.D.	272	440	164	440	80	79	1 396	2 186

Note: amounts are approximate and are given in US Dollars.

N.A. = not applicable.

The amount of the base salary does not include antiquity compensation.

With regard to the above, it is worth pointing out the following observations:

- The lower the labor category, the smaller the difference between the basic wage and supplementary income from quality assessment, given that in lower categories like associate professor the base salary is greater than the supplementary wage. As you go up the scale the relation is inverted, such that in the higher categories supplementary income is greater than the basic wage.
- To give an idea of the comparative value of this income, the average family income in Mexico City in November 1996 was estimated to be four minimum wages per month, around \$395.

- The greatest economic benefits in all categories are achieved by exclusive or almost exclusive dedication to academic work in general, and to teaching and the acquisition of graduate degrees in particular.
- The system of fellowships and incentives implies a more uncertain remuneration than the basic wage, because it depends on periodic quality assessment. However, some components permit greater certainty, such as the Permanence Fellowship (which in some of its modalities is possible to renew for terms of four to five years)⁸ or the Incentive for Outstanding Trajectory and for Academic Degrees. The two most ‘unstable’ programs, demanding an annual review of productivity, are the Incentive for Teaching and Research and the Teaching Career Fellowship.
- Although the system allows access to the fellowships and incentives programs, even with limited or null research activity, as will be seen in section 5.4, any academic who wants to obtain a substantial increase in income is forced to reach a certain average number of publications.

5.3. Changing job categories and acquiring graduate degrees

Before 1989 academics had few reasons to request a change in job category, given the limited differentiation of the salary scale. Nor did Mexico’s education system produce strong motivations to undertake graduate study, given that educational institutions did not require their academics to have graduate degrees, and those who did hold such degrees did not receive particular distinguishing benefits with respect to colleagues who held only undergraduate degrees.

The fellowship and incentive system produced immediate changes in this situation. The report of the General Rector in 1990, barely a year after the first incentives began to be applied, states: “In 1990, 526 job category promotions were given to professors, 85 per cent more than in 1989 (...). This meant that 25 per cent of the academic plant obtained a promotion during the year, giving substantial raises to those who obtained titular (full) status”⁹.

Indeed, the trend toward an increase in the number of full professors was spectacular. Between 1990 and 1994 they grew by approximately 90 per cent; within this category, the increase in Full Professors C, the highest level, was much greater, with 221 per cent growth. As a result, at present more than 50 per cent of the professors of the UAM are Full Professors of levels A, B or C. This is obviously associated with their expectation of economic gain, and has raised criticism around the practices of the Reporting Commissions, as we will see further on.

The same happened with the impetus to undertake graduate studies. In 1989, 185 full-time professors of the university enrolled in graduate programs. In 1994, this figure had increased to 494 full-time professors, of which 303 were at the doctoral level. The UAM has implemented, to this effect, a special program of scholarships which financed 4 per cent of the professors that attended graduate courses in 1994, during the year of 1996 the number of academics enrolled in postgraduate programs was 614, of which 362 were at the doctoral level, and for this year the special program of scholarship financed 9 per cent of the professors attending postgraduate courses.

5.4. Unintended effects

The quantitative scale used as a reference for scoring the quality assessment has unquestionable merits, for example, making it possible for each academic to estimate the number of points she or he will earn, and, accordingly, the degree of access she or he can have, based on productivity, to the mechanisms of extra-salarial payment. This objectivity and transparency was precisely the intention behind the design of the system of individual quality assessment at the UAM, and it *makes it possible for an academic to use the scale as an instrument for programming his or her annual activities, by calculating respective monetary gains.*

However, because of its current design and the different forms of management that it permits, the scale also has loopholes that can be manipulated by the individual academic. It records too many activities of little importance, at the same time that it does not limit the maximum scoring that can be accumulated by means of many of them. This permits a certain “score inflation” and has even led to individual strategies of applying energy to the realization of numerous low scoring, lower quality activities, that nonetheless can accumulate to produce a relatively high score, permitting, for example, attainment of a promotion of labor category or the Permanence Fellowship despite the fact that the individual is not carrying out significant or systematic research activities. Ultimately these manipulations obscure qualitative differences in work performance of the personnel, which could explain the marked growth in few years in the category of the highest level professors.

The diversity of quality assessment mechanisms, and the difficulty of establishing the necessary interrelationships between said mechanisms, makes it possible for academics to use the system as a “menu” of alternative paths. Thus, for example, instead of research, they can take on other activities such as the development of computer packages whose scoring fluctuates between 660 and 6 600; the design of equipment with scores that go from 660 up to 1 980; or a combination of cultural diffusion articles (which score a great deal lower than scientific articles) and an intense teaching load (10 cultural diffusion articles per year at 220 points each added to two courses per quarter can produce nearly 5 000 points in a single year). Another option would be the combination of academic committee positions, which also generate points, with an intense course load.

In addition, although the system attempts to be homogeneous, each Reporting Commission determines and applies its own criteria for evaluation, depending on the different disciplinary traditions and the type of work accepted as satisfactory. This variability can affect ease of access to fellowships and incentives, depending on the disciplinary area to which an academic belongs.

In some cases, “soft” criteria for quality assessment have a political or ethical background. Within the system of peer quality assessment, some evaluators perform their task with rigor but others assume it to have a redistributive economic function, relatively independent of scientific judgment in and of itself. In this way resistance to quality assessment in specific and to government policy in general is channeled. Such resistance cannot be expressed as an explicit rejection of quality assessment, since this process ensures that most of the academics of the UAM could attain income levels higher than those usual in other public and private Mexican universities.

5.5. Differentiation between research and teaching

The fellowship and incentive mechanisms try to counteract a universal tendency of most professional researchers to dispense with their teaching commitment whenever possible, aside from perhaps

directing a promising student thesis. This rejection of teaching is expressed especially with respect to undergraduate courses. Also, in sectors such as the Social Sciences, where team research is less common, giving special importance to research strengthens a trend toward the individualistic development of many academics, reflected both in a limited attention to students outside the classroom and the reticence to participate in collegiate tasks characteristic of academic life, trends sometimes reinforced at the UAM by a lack of infrastructure that make it difficult for many full-time professors to stay and work on campus outside of class hours.

Furthermore, although one of the initial objectives of the UAM was that its academic body would be composed of professors who at the same time were researchers, in practice there exists a virtual separation, as is common in most public and private universities of Mexico, between a large group academics devoted exclusively to teaching and another important but minority group that effectively conjugates teaching with research. This shows that the close relationship sought between research and teaching is more problematic than was believed twenty-two years ago, when the university was founded. Hence, shortly after establishing the reward system on the basis of productivity, the need for some mechanism that recognized this reality became evident, so as not to leave the majority of educators who do not carry out research out of the system.¹⁰

This has been the role, as we saw, of the Teaching Career Fellowship. This fellowship rewards those who are primarily devoted to teaching and also has the effect of forcing researchers to overcome their reticence to give class. We already saw that the Permanence Fellowship includes an obligation to give classes, but in very limited quantities. On the other hand, the money provided by the Teaching Career Fellowship is greater or smaller according to the number of class hours given per year. This has determined a growth in the demand for class time on the part of the academics so significant that it has practically resolved the scarcity of teachers sometimes felt, especially at the undergraduate level.

5.6. The dissociation between academic and administrative sectors

In the UAM there is no system of quality assessment of individuals nor of additional salary supports for the administrative sector. This generates a social polarization within the university, by strengthening a disparity of salaries that was already important before the system of quality assessment of academics got under way. This social polarization involves political intricacies, given that although the union of the UAM encompasses both academics and support staff, the administrative personnel predominate statistically. One of the factors which partially explain this situation is the right given in a clause of the Law Contract to the unionized workers to propose the aspirants to occupy the vacancies of the administrative workers. The same clause does not govern the contracts of the academics, and although a large number of professors are active in the union, the majority of the academic body is not unionized, and an important proportion does not tend to support, up to where it can be observed, the positions of the union in its often conflictive relations with the General Rectorship.

We have already mentioned the form in which the SITUAM was excluded from the contracting, quality assessment and promotion of academic personnel. Since then the union has consistently demanded that the funds paid according to the system of quality assessment of academics be included as normal wages and taken into account with regard to pensions, which would make it possible to include them in labor negotiations with the authorities. This demand has been denied, helping to introduce a species of status quo: the union does not intervene in the evaluation of academics and in

exchange, quality assessment does not reach the administrative sphere. Despite the fact that in the UAM a system of quality assessment for administrative workers was proposed much earlier than in other universities, it has been blocked by this virtual separation of spheres of influence.

This implies a potentially critic situation since part of the problems of operation of the university are in the administrative area. The union blockade and the refusal of university authorities (and implicitly of the government) to give additional remuneration's in the administrative area without mechanisms of quality control and of measuring productivity, has closed off the possibility for improving the income of the administrative personnel, which historically has been very low. This acts as a vicious circle, reproducing problems of operation, deficiencies in the training of personnel and reiterating a union practice geared more to obstruction than to negotiation of better working conditions in exchange for increases in productivity and in the quality of the work. Although establishing a system of administrative incentives has been proposed on the part of the authorities of the university, (and subsequently rejected by the union), it has had neither the same emphasis, nor a comparable strategic design, nor financial calculations equal to those behind the launching of the system of quality assessment of academics.

Both from the point of view of the union and of university authorities, the need to develop a more dynamic labor policy that has the capacity to disentangle this difficult situation is evident. Thus, if one of the risks of the system of quality assessment was that of generating an exaggerated diversification of labor situations and of income among the academic personnel -- an effect partially mitigated by the broad reach of mechanisms such as the Teaching Fellowship, as well as by certain criteria already mentioned with regard to the tolerance of the Reporting Commissions -- a much greater risk has been run with regard to the excessive economic separation between academics and support staff.

6. INSTITUTIONAL QUALITY ASSESSMENT

6.1. Identities

While the mechanisms of individual quality assessment form a single, homogeneous system for the university as a whole, every Unit of the UAM has a different system of institutional quality assessment. At this point it is necessary to refer to "substrategies" of institutional quality assessment developed in each Unit, which accentuate the different organizational identities.

The two extreme cases are, respectively, that of the UAM-Iztapalapa and the UAM-Xochimilco. The Iztapalapa Unit was the closest to the government's model of quality assessment, because many of their high-level academics have functioned over the years as advisors or evaluators in the CONACYT system, which in several aspects is the basis of the current system of quality assessment of higher education at the national level, particularly at the graduate level. This circumstance is related to characteristics present since the foundation of the Unit. Since its founding, a nucleus of basic sciences researchers accustomed to academic operations and standards of quality characteristic of scientific production on an international level have had weight in the UAM-Iztapalapa. For the same reason, these people have been frequently called to participate in the governmental agencies involved in peer quality assessment of higher education, such as CONACYT, SNI, etc. This academic nucleus has even defined a strategy in order to maintain a constant presence in these agencies by systematically accepting their invitations to participate. Hence the model of institutional quality assessment accepted for Iztapalapa was based on indicators that are of international utility: quantity

of academics, intellectual formation of the same, number of academics belonging to the National System of Investigators (SNI), international publications, articles published in scientific journals, etc.

The Xochimilco Unit, on the other hand, both for reasons of the prevailing political and ideological orientations of its academic and administrative body, and of its particular academic model, was the most divergent not only from government proposals, but from the general leadership of the university itself. Accordingly it accepted the general idea of quality assessment but with some reluctance following its own Institutional Development Plan, designed to allow for the particularities of its academic model.

The third unit, the UAM-Azcapotzalco, tried initially to propose a homogeneous system of institutional quality assessment for the three units, but when it did not obtain a favorable response from the other units it looked for its own path, distinct from the two extremes. At first, it adopted a technique of overall institutional self-assessment, as advised by a group of hired experts. Subsequently this method was exchanged for another, focused on the evaluation of the research areas that constitute the basis of the academic structure.

This diversified strategy of methods of self-assessment is respected by the General Rector which monitors the evolution of the different processes through centralized planning mechanisms, trying at the same time to maintain a homogeneous information system based on common indicators. At the same time, the General Rector carries out pertinent budgetary and political negotiations with government education authorities and has also promoted in the entire UAM, since the beginning of the present decade, the adoption of the program budget technique, for the purpose of homogenizing and making the use of financial resources more efficient.

6.2. Institutional quality assessment in the Azcapotzalco unit: A focus on research areas

The Azcapotzalco Unit participated in the process of discussion in which the general strategy of quality assessment of the UAM was defined. In this process some of the key ideas were, as has already been discussed, emphasizing institutional self-assessment in order to have a system of evaluation solid enough to form the basis for negotiation with the government, generating compensatory mechanisms in order to avoid an internal polarization between academic sectors of excellence and sectors that were left behind, and preserving broad freedom on the part of each Unit of the UAM to determine its own mechanisms of institutional quality assessment.

The position of the UAM-Azcapotzalco had initially been to propose a system of overall institutional self-assessment, formulated according to ideas borrowed from experiences in other countries (basically the United States). But this proposal did not have a positive response given that the other units of the UAM each took their own road. So, their proposed technique of overall self-assessment, based on a thorough retrieval of information concerning the operation of multiple institutional variables was only undertaken by Azcapotzalco, between 1989-1993.

Subsequently, however, there was a change of unit rector, and the Unit turned to the system that currently continues to function, involving the quality assessment of research areas. The research areas are departmental subdivisions that function as the basic cells of academic operation. The idea behind them -- in agreement with the model that governs the UAM -- is to form nuclei in which research is combined systematically with teaching. In theory (although not always in practice) every professor in the UAM should be assigned to one of these areas.

The original idea of the evaluation of research areas in the UAM-Azcapotzalco was to depart not from the concept of quality assessment in itself (a word that always arouses suspicion), but rather planning. In this new experience it was proposed that the academics of the Unit, either individually or in groups, would define a work plan to carry out over a three to five year term, accompanied by a request for resources and a justification of conditions that ensured the feasibility of their activities. This very general planning project was explained in a brief document entitled "The Process of Planning, Quality Assessment and Budgeting", which put special emphasis on the programming of activities and linking funding to the fulfillment of goals. About quality assessment itself little was included, although the term was present in the title of the document. This attempted to bypass the concept of coercion and mistrust that many academics linked to the term. The authorities of the Unit wanted to generate an environment of confidence and consensus in the academic community and hence the strict application of quality assessment was left to the future, albeit the near future. For immediate purposes, the principle of budgetary rationalization on the basis of goals was the principal demand. At the same time the system tried to actively involve the academic community in the planning process. Quality assessment of individual academics continued, by means of the system of fellowships and incentives. Institutional quality assessment, meanwhile, was left for the future. In this manner, institutional action did not center on the painful process of extensive paperwork, but rather in the circulation of a very simple, brief document, outlining the basis upon which the discussion and interaction of academics with different levels of authorities would be generated.

Based on this, the Unit Rector implemented periodic meetings for discussion with the three Division Directors, the 14 Department Heads and the 58 Research Area Heads of the UAM-Azcapotzalco, in which the execution of the functions of research and teaching, as well as issues relative to the administrative support of said principal functions were discussed. This was accompanied by a broad campaign of internal dissemination in order to promote participation. This confidence-building process, directed at both individuals and the collegiate organs of the Unit, lasted two years, which gave it the appearance of a process that was slow, but which tried to plant a seed of consensus based on new forms of academic interaction, and which would bear fruit in the long term.

The budgeting mechanism was conceived within this frame of reference, as not only a technical but also participatory exercise, linking resource allocation to the realization of goals freely defined by the researchers. Logically, the promise of funding within this interactive framework was an incentive to participation.

Care was taken that the process be imposed in a parallel manner in the three divisions and in the 58 areas of the Unit, in order to prevent imbalances that would generate resistance or rivalries. Once goals were programmed, resources were granted and after certain time, if the researchers and the areas proved capable of realizing their goals, more funds were delivered. The logic requiring measurement of results was fluid, because of the idea that the university was in a transitional phase. They tried to distinguish between more and less efficient areas and to give support to those that had problems but prospects for improvement, but avoided rigid, equal treatment of all of the unproductive areas, because in the opinion of the authorities, if a radical system of awards and punishments was imposed, the Unit could become trapped in a logic of extreme differentiation between areas of excellence and areas that were falling behind. In this way the Unit sought -- and achieved -- a greater decentralization of budget management, which had previously been concentrated in the central agencies of the Unit (the Unit Rector, General Secretariat, Division Chiefs and Department Heads) and is now to a great extent administered directly by the research areas.

After an initial period of over two years in which budgeting mechanisms were adjusted, complaints were attended and suspicions abated, in 1996 the Unit entered into the formal quality assessment phase. To this effect quality assessment of research areas has been announced, and will be implemented by the maximum collegiate authority of the Unit, the Academic Council. By involving the Council, the objective is to guarantee greater continuity to the project, because executive authorities in the UAM, such as the Rector, only serve four years terms and cannot be reelected.

The first step of the procedure of quality assessment of research areas was carried out in the course of 1996. Three committees were formed which coincide with the disciplinary specialties included in each one of the three Divisions of the Azcapotzalco Unit (Basic Sciences and Engineering, Design Sciences and Arts, and Social Sciences and Humanities). Each quality assessment committee was formed by ten academics of recognized prestige, external to the UAM-Azcapotzalco (although they could be members of one of the other two Units of the UAM). Working on the basis of documents presented by each area and interviews with members of the areas, or with staff members of the academic administration, each committee issued a judgment in August 1996. These judgments were not seen as the definitive qualified opinions; instead a second phase (currently pending) under the supervision of the Academic Council of the Unit is foreseen. The Council will receive the committees judgments and send them immediately to the Divisional Councils, where institutional quality assessment oriented towards specific decisions, for example, the desirability of dissolving research areas with lesser prospects for development, creating other new areas and handling new criteria for budgetary allocations will be initiated. These decisions will be made by the Division Councils and will be subsequently ratified by the Academic Council.

The second phase was programmed to finish in December 1996, once a schedule of commitments that each area must fulfill in the immediate future in order to correct its deficiencies had been established. For a period of five more years the Academic Council will annually review the fulfillment of the goals. After five years there will be another overall review of the areas, of the fulfillment of goals in that period and of the necessary adjustments that should be recommended in programming, taking into account the experience that has been accumulated. Then, on the basis of the registered advances and the consolidation achieved by these areas, a decision concerning whether the overall quality assessment process will continue on the basis of five or ten year periods will have to be made. If within five years, a satisfactory maturity on the part of the research groups has been achieved, the term of periodic evaluation would be set at ten years, which would be coherent with the idea that quality assessment aims to give greater independence to the research areas, rather than submit them to a new superstructure of bureaucratic control.

In conclusion, the experience of quality assessment implementation by the UAM-Azcapotzalco shows, in the first place, a change and progressive adjustment of strategies, from the proposal of a common system of institutional quality assessment to the current experiment in the evaluation of areas. In the second place, if this latest strategy works, it will result in the greater financial and operational autonomy of the research areas, although many aspects still need to be perfected for the new system to be firmly established. In perspective, it seems clear that the UAM-Azcapotzalco has looked for a path of institutional quality assessment that without contradicting the general policy, tries to ensure the autonomy of its research groups.

6.3. Institutional quality assessment in the Iztapalapa unit: The division of basic sciences and engineering

As previously mentioned, the division of Basic Sciences and Engineering (CBI) constitutes the principal academic nucleus of the Iztapalapa Unit. We have also pointed out that in light of the recognition of its higher international standards of academic performance a certain number of the members of the CBI in Iztapalapa had experience prior to 1989 in the quality assessment of academic issues related to CONACYT activities, including planning of graduate programs, requests for fellowships for graduate study in Mexico or abroad and requests for financial support for research projects. Said experience in CONACYT, beginning in the 1970s, was previous to the process of quality assessment initiated in the 1990s with the CONAEVA. The quality assessment practices of high-level academics of the UAM-Iztapalapa (and of other Mexican universities) can be seen as an example of the interpenetration between the government system of quality assessment and higher level academic sectors that, under the auspices of the system of peer review, provide evaluators to governmental agencies. Toward 1989 the academics of the CBI of Iztapalapa were not only familiar with the practice of quality assessment, but they themselves had also contributed in years past to designing the parameters of operation of CONACYT, which led to a relative minimization of the differences between the criteria for internal and external quality assessment of the Unit.

In this context, when the CBI perceived in 1989 that a new process of generalized quality assessment of higher education was approaching, they decided to carry out a preventive internal evaluation of their undergraduate programs (which would later be subject to external quality assessment by CONAEVA) and graduate programs (which would be evaluated externally by CONACYT).

In order to evaluate the operation of *graduate* programs, indicators to assess the quality of the academic body were defined, including the academic level of the professors, their research products and the number of masters and doctoral theses directed by each academic, among others. In order to evaluate the performance of the students, indicators such as average time of study, quality of theses with regard to the later appearance of articles co-authored by students and professors and similarity between professors' research interests and students' thesis topics were chosen. Where poor performances were discovered, they looked for the causes of the problem and recommended pertinent changes.

In 1990 CONACYT solicited information on the graduate programs of the CBI for the purpose of considering requests for support, and for the inclusion of these programs in a new classification of Programs of Excellence at the Graduate Level which CONACYT had created for the purpose of prioritizing funding. Among other things, CONACYT reformulated its policy of fellowships for graduate study, granting them only when the program a student had applied to belonged to the Program of Excellence at the Graduate Level, which in turn had begun to prepare its own quality assessment committees.

The academics of Iztapalapa felt that the criteria for required information were not sufficiently specified, probably because the quality assessment committees of CONACYT had not had time to define them with precision, given the urgency with which the new policy of quality assessment of higher education at the national level had been approved and implemented. The Committees of CONACYT met to define the new policy, but in a hurried form and without time to define operational criteria with clarity and homogeneity. Thus, since the CBI of Iztapalapa brought together two different areas of study (Basic Sciences and Engineering) it had to deal with two different CONACYT committees, and found that each had different demands for information. And since the criteria of the

quality assessment committees of CONACYT with regard to information collection were not clear, presumably the parameters with which they would judge said information would not be either, a hypothesis that produced uncertainty in the CBI as to exactly which data to present, since the judgment of the evaluators would depend on the information presented.

In this situation the accumulated experience of the CBI of the UAM-Iztapalapa was useful, from the aforementioned exercise of self-evaluation, to presentations made to CONACYT prior to 1989. The fact that there were academics from the CBI on both CONACYT quality assessment committees was also of great assistance in specifying what information to present. Certainly CONACYT requested concrete information, but the format in which the presentation should be made was not well determined, and this specification was ultimately made by the CBI itself in accordance with its accumulated experience. With this background, an interactive relationship was produced between the CBI and CONACYT which helped clarify the situation.

Given that CBI brings together, as its name states, two disciplinary fields, this interaction was created with two different committees of CONACYT, that of Basic Sciences and that of Engineering. The result of the first quality assessment (1990) was very positive for the CBI in both committees. Of five masters programs in the Division of CBI (three in basic sciences and two in engineering) four were admitted unconditionally into the Program of Excellence of CONACYT. In the case of the Doctorate in Sciences of the same division, a problem of miscommunication arose between the CONACYT and the authorities of the CBI. This “umbrella” program, connected with the five masters degrees was conceived as a doctorate; it accordingly combined basic sciences with engineering in interdisciplinary study. But CONACYT felt that only the part of Basic Sciences, not that of Engineering could be approved. Accordingly it wanted to register it in the Program of Excellence as a physics program, changing the official name given to it by the university. But the CBI categorically refused to accept this possibility, alleging that the structure of the doctorate was an institutional prerogative that CONACYT could not question; it could only accept or reject the program as a whole. Finally, CONACYT accepted the argument, and approved the doctorate.

This moment having passed, the CBI continued with institutional self-assessment, attacking a problem that was seen as generalized in the graduate-level of the entire UAM: the excessive requirements of the masters degrees, due to a heavy load of courses and the thesis requirement, which, added to the time required in turn by the doctorate, induced the tendency to exaggerated length of studies, limiting the competitiveness of the programs. An adjustment (still in the process of approval currently) was planned in order to more fluidly co-ordinate the masters and doctoral degrees, concentrating course work at the masters level and leaving time in the doctorate specially for research, taking into account, in addition, the fact that many people currently undertake a masters degree for reasons of updating their professional practice, and not so much out of interest in research.

With regard to the quality assessment of the *undergraduate* program, under government policy initiated in 1990, the latter was placed under the supervision of the recently founded CONAEVA. In this case the CBI of Iztapalapa had also prepared by doing a self-assessment of its careers on the basis of ad-hoc quality indicators. The intuitive impression was that the undergraduate programs were home to the greatest number of problems in all of the divisions of the Unit, and accordingly, also in the CBI. The indicators on professors showed good results, but others such as student desertion were not good, revealing among other problems a lower commitment to teaching at the undergraduate level.

When the CBI finally received a visit from the evaluators of the CONAEVA, both positive and negative interactions like those that had already been experienced during the external quality assessment of graduate programs by the committees of CONACYT were produced. Given its interdisciplinary character, the CBI was visited by two different committees from the CONAEVA: that of Basic Sciences and that of Engineering. Once again there were evaluators who belonged to the CBI of Iztapalapa, and that was of great assistance in achieving agreements concerning the management of information. The committees of CONAEVA had the same problem as those of CONACYT in that upon beginning to apply a new policy they confronted a situation of great indefiniteness with regard to the criteria for obtaining and evaluating information, and to a great extent they functioned on the intuitive principle of “learn as you go.”

The two mentioned committees of CONAEVA made several visits to the CBI. The first problem arose around the fact that the forms requesting information were based on a faculty-type academic model, typically of the French style of organization that is common in most of the public universities of Mexico. But the CBI, as well as the entire UAM, is based on a departmental model, for which such formats did not coincide. The authorities of the CBI had to speak with the chairpersons of the two committees of the CONAEVA, requesting that the committees jointly carry out the interviews necessary to compile the information for quality assessment because, although in other universities Basic Sciences and Engineering careers exist in separate faculties, in the model of the UAM they are totally integrated branches, with a shared core of basic formation. In opinion of the representatives of the CBI, the opportunity for CONAEVA to understand this articulation could also serve to enrich CONAEVA with respect to the excessive isolation between its committees (as well as between the committees of CONACYT). Initially this proposal was accepted by both committees, but then only the Engineering Committee was disposed to continue to work in close interaction with the CBI, while that of Basic Sciences preferred to carry out its work at a distance, which produced a growing tension expressed in profound discrepancies of the CBI with the first report of quality assessment of undergraduate programs delivered by the Basic Sciences Committee.

On the other hand, in the case of the CONAEVA Committee of Engineering a dynamic relationship was originated in which the Committee progressively adjusted its point of view in the evaluation. The Committee even asked the CBI to explain its own criteria for internal quality assessment, so that the Committee could experiment with these criteria when evaluating other institutions that, like the UAM, were governed by the departmental organization model instead of the traditional faculty model.

Despite this positive relationship it is interesting to note that the CBI of Iztapalapa did not appraise the first report delivered by the Engineering Committee in a positive way. Although the CBI had a critical vision of the state of its undergraduate programs, it did not coincide with the judgment of the committee. And, as at the graduate level, after the external quality assessment of undergraduate programs, it continued to promote internal quality assessment and to propose concrete measures for solving the problems that had been detected. Thus, curriculum changes were studied, an office was created for attention to problems of professors and students (in the CBI as well as in the other Divisions of the UAM-Iztapalapa), laboratories were improved to strengthen experimental training, and workshops in computers and foreign languages were started.

A definite difference between experiences at the undergraduate and graduate level arose. Quality assessment of graduate programs was very positive for the CBI, both in its external and internal phase. This was due to the quality of the programs and to internal leadership, but the dynamic of internal quality assessment independent of governmental agencies, which looks to ensure a certain

autonomy of the Unit from external evaluators by establishing its own, reliable system, is also important.

On the other hand the profound discrepancies which have arisen with the committees of CONAEVA in the process of quality assessment of undergraduate programs show that even in a system of privileged interaction between those evaluated and their evaluators, as is the case of the UAM-Iztapalapa, frictions are practically unavoidable, since the government agencies' committees continue to be outside entities interested in affirming their own criteria for judgment.

6.4. Institutional quality assessment in the Xochimilco unit: The institutional development plan

Given the peculiarity of its educational model, distant from both traditional academic models of organization by faculties and the conventional departmental system, the Xochimilco Unit of the UAM has been informally criticized since its foundation, even by academics belonging to other units of the UAM itself. This situation strengthens an identity of the Xochimilco Unit that is not only expressed in academic organizational issues, but also in frequent divergencies from the other two units in decisions that pertain to the university as a whole.

This underlying tension led authorities of the Unit, on its ten year anniversary (1984) to take action to determine whether or not the model functioned adequately. They began to carry out annual meetings with graduates of most undergraduate programs in order to discuss how they viewed their preparation in light of their professional experience and to solicit suggestions for redesigning the curriculum.

Apart from this action and some smaller studies, there was no other significant form of quality assessment, until 1989 and 1990 when the new policy of higher education based on principles of quality assessment was announced. Together with this announcement arose, as previously noted, the idea that each unit of the UAM would carry out self-evaluation to assess the virtues and defects of its operation.

The new policy awakened more resistance in the UAM-Xochimilco than in the other units, given that there was implicit government pressure to condition new budgetary allocations on the practice and results of quality assessment. One criticism that still exists today and is also heard in the other units, it is that the systems of quality assessment as designed are excessively quantitative and do not assess the qualitative.

But in any case the Xochimilco Unit became incorporated into the quality assessment process, through a self-evaluation of its research and teaching areas that was carried out in 1992 and 1993. In the area of teaching, degree program co-ordinators had to study indicators of efficiency in finishing studies, causes of desertion, delays in the updating of the curricula, etc. With regard to research, an estimate of the productivity of the different areas was carried out.

There were two principal consequences. In the first place, for teaching, goals were set in order to improve efficiency in completing studies. In the second place, research, quality assessment made it possible to identify differences between active areas, and others which did not produce and only placed stress on the budget. As a result of the latter a form of classification to distinguish between consolidated research areas, areas in the process of consolidation, and virtually non-existent areas was created. Since then a process of consolidation of areas which continues to operate presently was initiated by means of new mechanisms of quality assessment and budgetary support. Areas of research that were considered impossible to rescue were dissolved. These processes awakened some

degree of rejection from the academics, either by invoking the issue of university autonomy, questioning the instruments of quality assessment being applied or questioning the evaluation itself as a punitive instrument with dangerous effects for the educational process.

It is necessary to recognize that in the early 1990s all of these processes were new to public higher education in Mexico. Quality assessment by academic peers and external evaluation (which produced the greatest resistance) was only beginning to be discussed. Along with the other units of the UAM, Xochimilco decided to carry on several experiments in internal evaluation in light of the eventual visits of evaluators from governmental agencies. Among other initiatives, the UAM-Xochimilco tried to establish ties between each branch of study and a group of three or four outside universities that had undergraduate programs similar to those of Xochimilco. They sent them copies of the curricula of the Unit together with information on the academic plant, students, infrastructure and other functional characteristics. Varied responses were obtained (praise and criticisms) but this information was not subsequently utilized, since it was not distributed to the Unit's research areas. Aside from this self-initiated experiences the UAM-Xochimilco had to undergo the same experience of quality assessment as other Mexican institutions of higher education, using the new governmental mechanisms of institutional quality assessment, particularly the committees of CONACYT which established the classification of Programs of Excellence at the Graduate Level. We have presented this process with regard to the evaluation of the graduate programs of the CBI of Iztapalapa in some detail, showing that even in the case of the CBI, which had already conformed to a process of quality assessment similar to that of CONACYT and where the result was favorable to the Unit, difficulties were not absent. There is, then, even more reason to expect difficulties in the case of Xochimilco, since due to its academic tradition and ideological inclinations it was not familiar with nor took a positive view of the values and procedures which guide a system of quality assessment such as that employed by CONACYT.

In the first quality assessment done in 1991, no graduate program of the Xochimilco Unit was accepted by CONACYT in the Program of Excellence. The response of the Academic Council of the Xochimilco Unit was to publicize by means of a press releases a questioning of the justness and credibility of the opinions of CONACYT, which in turn motivated a strong public reply from this agency, detailing the reasons for its negative judgment.

This tense situation was saved by means of a process of negotiation and administration of academic measures that made it possible that shortly afterwards -- in 1992 -- several of Xochimilco's graduate programs were admitted in the excellence category of CONACYT. In this process the General Rectorship of the UAM intervened, creating a triangular relationship with CONACYT. In this type of conflict in Mexico the weight of the Rector of a public university as important as the UAM is considerable, and a well-conducted negotiation seldom reaches a bad resolution.

But the differences regarding the graduate programs of the UAM-Xochimilco had two concrete dimensions to treat, one formal and another strategic. With regard to the formal dimension, the experience of the administrators showed that it is problematic to delegate the responsibility for filling out forms and collecting the information requested by the government to subgroups or to the individual academics themselves, as had been done. They learned that such documentation must be reviewed in its final phase and, if necessary, corrected by the head offices to ensure that it conforms with the formal requirements of the external quality assessment agencies.

More important, however, is the strategic dimension. The negotiations based on the conflict raised over the rejection of the programs of the UAM-Xochimilco were carried out within the parameters

defined by the General Rectorship with regard to the government quality assessment policy. The principles involved have previously been outlined: 1) the UAM would try to preserve its autonomy but not in the sense of rejecting a policy of quality assessment that was seen as unavoidable and, in addition, necessary in light of the international opening of Mexico, instead seeking a favorable negotiation with higher education authorities; 2) the UAM would try, by applying the quality assessment policy, to obtain a substantial increase in its income from the public budget; 3) the UAM would defend the principle that quality assessment should not produce a system of awards and punishments that put the academic structure out of balance by strengthening the distinction between more and less advanced sectors. The latter presumes that sectors with weak evaluations should receive additional resources subject to the fulfillment of certain goals that progressively make it possible for them to overcome obstacles.

Thus it was resolved that CONACYT would reserve some of their judgments on the programs of the UAM-Xochimilco, setting a time frame so that the Unit could try to reach certain goals. Meanwhile the UAM allocated resources so that these and programs of the other two units that had not been evaluated positively could be financed while they attempted to achieve the conditions necessary for entry into the CONACYT Program of Excellence. An internal consensus was also reached based on the need to suspend further debate with external evaluators and to work with an eye to future quality assessments.

In addition, the Xochimilco Unit, as well as the other Units of the UAM, using different criteria, formulated its own strategy to guarantee its autonomy in light of government policy. Given budgetary restrictions, it was not possible to reject such policy outright, an action which would have marginalized the Unit from the principal current of development of Mexican higher education. Nor did it wish to adopt a strategy of passive adaptation of government criteria for the purpose of obtaining financing. The resulting position was that if the official educational policy took a long-term perspective towards the orientation of higher education, the Unit would respond with a long-term answer, through the use of ad hoc planning mechanisms. Thus an Institutional Development Plan was formulated for the period from 1993 to 1996, placing the different activities of the Unit in seven strategic programs: Research, Teaching, Academic Improvement, Quality Assessment, Community Ties, Adaptation of Administrative Infrastructure to Academic Functions, and Infrastructure and Information. In addition to trying to implement a strategic response, the plan advanced the principle that quality assessment should not be imposed from outside but rather should be congenial to the UAM (and, accordingly, to the Xochimilco Unit) as envisaged in the original constitution of the university. Before the pressure created by the implementation of the new educational policy in 1989, this principle had remained limited to activities of smaller extension and institutional impact.

The experience of the UAM-Xochimilco reveals a conflict of organizational identity which, in principle, is resolved by traditional methods of resistance both to the government and to the general university leadership; however it is also resolved as a learning experience. What is most significant is that the idea of quality assessment is not rejected, not only for economic reasons, but because a clear-cut rejection would result in the isolation of the Unit. In order to maintain identity, it is also necessary to interact with others; this evens out some basic aspects of operation without denying differences.

7. CONCLUSION

If the UAM is, as we sustain, a case of reference for the study of the system of quality assessment of higher education in Mexico, included in the final observations that must be made is the predominance of self-assessment in this system. Indeed, of the three mechanisms defined by the CONAEVA (self-assessment, peer review and quality assessment of the system as a whole) the first is the one which has functioned most regularly and most effectively, perhaps because it conjugates specific interests of both the universities and the government. The emphasis on self-evaluation permits the universities to function within the traditional criteria of legal autonomy, and the government to preserve a tradition established before the policy of quality assessment, by which public funds for the universities are negotiated informally and on a case-by-case basis, by means of agreements between university authorities and state officials.

In other aspects, quality assessment is shown as a useful instrument of educational policy, because through this method a more dynamic and relevant mode of planning than had previously functioned has been established, penetrating all levels of university operation. The ties between budget and goals, despite the limitations of the arrangement, today permeate all aspects of university life. Staff members of the administration of the UAM that were interviewed for this study point out that the implementation of the quality assessment has been used specifically to rationalize the use of funds and to generate a very valuable information system -- previously non-existent -- thus permitting an effective monitoring of practically all of the tasks that are carried out in the academic area of the university. This information is provided periodically by departments, research areas and especially by individual academics. There had not previously existed an important motivation for individuals to provide thorough information on their activities, because it had no effect on their income or their daily tasks. Now the flow of information is parallel to the operation of the system of fellowships and incentives, and institutional quality assessment can be utilized as a university management tool.

The largest consensus of favorable opinions on the system of quality assessment of the UAM centers on the positive impact that it has had on faculty income. But in other aspects there are criticisms, in the first place, of the exaggerated emphasis that the remunerations resulting from individual evaluation have had on the income of academics. The initial idea of the authorities of the UAM when they designed these mechanisms was that the income from the same should not exceed basic wages by more than 30 per cent. But since the anti-inflationary policies of the government did not permit a significant raise in the base salary, the UAM had to give raises in income to its professors by means of exaggerating the system of fellowships and incentives: today the base salary can be easily doubled by this type of additional remunerations.

One can hypothesize that in the point of view of the government, aside from the anti-inflationary objectives of the wage policy in effect throughout the country, an interest in promoting a productive dynamic and a differentiation of salaries that would break the previous scheme of excessively equal payments in the universities had significant weight.

The new regimen of increased income is based on two principles: differentiation and variability. The dynamics of differentiation of academics' income incorporates some principles of moderation that emanate from the design and operation of the system of individual evaluation. But the potential variability of income is more complicated, since although there are some types of incentives which are easy to attain, the total depends on a permanent measurement of productivity, on the fact that the academic has the consistence (and the good health) to insure a steady or growing rate of work, and also on the ability of the University to maintain an adequate availability of budgetary funds. This

latter is an important point to take into account. Despite the fact that, in general, the system of payment of incentives and fellowships is handled in a fixed way, it is legally stipulated that, unlike basic wages, they do not constitute an acquired right but depend on budgetary availability as annually ratified by the General Rector, and could thus be lowered or canceled as needed. This latent insecurity is the flip side to the salary increases.

Along with this problem, the criticism of specialists and some members of the university administration is that the system of quality assessment of the UAM is too closely tied to individual evaluation, and accordingly to monetary aspects and quantitative indicators. As a result, despite its intentions, the idea and practice of the quality assessment appears linked to a system of awards and punishments. In comparison, and in spite of experiences like those which we have described in section 6, institutional quality assessment is much less developed.

Alongside this, a species of “revenge of the peers” exists, that is, equalizing mechanisms of redistribution put into play by some evaluators in favor of their peers, which produce discontent on the part of university administration and are evidence of the need for introducing corrective mechanisms into the system. In essence, this is the product of the clash between a dynamic of remunerations based on a stimulus-response criteria that achieves a very flexible response from those affected, and other contradictory dynamics generated by the operation of the system itself that on the one hand attempt to preserve elements of equality and economic security, and on the other wish to ensure rigor by means of review mechanisms and periodic restructuring, following a logic of trial and error.

By way of conclusion, we can distinguish several real and hypothetical stages of evolution of the system of quality assessment of the UAM:

- The first stage, still being tested, is what has been called the development of a culture of quality assessment, and can be understood in a double sense: acceptance of the routine of quality assessment and the attempt at converting the same into an effective instrument for institutional development and allocation of resources that will permit a greater efficiency in the educational service that the university provides.
- The second stage consists of achieving an acceptable balance between the different functions of the university, based on an adequate integration of academics into an effectively collective institutional life.
- A third stage, which can be hypothesized based on the design of the system of assessment of areas of the UAM-Azcapotzalco, and perhaps also in other strategies, such as that of the UAM-Xochimilco which defends its autonomy as it develops its institutional capacity for strategic planning, is that of consolidation of the culture of quality assessment on a level that permits greater autonomy on the part of research and teaching areas, such that short- and medium-term quality assessment mechanisms would take care of themselves. Although at this time this is only a possibility, if it works, it could solve from within the system some of the problems contained therein.
- A fourth stage would be the most comprehensive, and can be thought of in terms of achieving of superior educational quality as the result of an integrated and interactive process involving academics, students, academic managers, decision-making bodies and administrative personnel. From this perspective, the need to visualize processes of

quality assessment whose orientation and results permit greater compatibility in terms of benefits to diverse institutional actors -- individually and by area -- is evident. Only in this way can the path to true quality in higher education be effectively pursued.

Finally, the issue of implementing mechanisms which guarantee follow up to the quality assessment process in a way in which takes maximum advantage of this effort is a topic which remains to be treated.

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NOTES

1. There are three Social Sciences and Humanities Divisions, one in each campus; two Basic and Engineering Divisions in UAM-Iztapalapa and UAM-Azcapotzalco; two Biological Sciences and Health Divisions, in UAM-Iztapalapa and UAM-Xochimilco; and two Design Arts and Sciences Division, in UAM-Xochimilco and UAM-Azcapotzalco.
2. People in management positions remain four years and cannot be reelected. Representatives of professors, students and administratives in collegiate organs remain two years and cannot be reelected for the next period.
3. Currently 22% of matriculation in higher education in Mexico is in private institutions.
4. Approximate figures, calculated in US dollars at an exchange rate of \$7.80 Mexican pesos per dollar.
5. The statistics cited in this section come from the Department of Planning and Institutional Development (DIPLADI) of the UAM or were taken from the reports of the General Rector cited at the end of the study.
6. This does not mean that the professor in question gives 16 hours of class per week; according to the form of calculating teaching hours at the UAM, it is equivalent to a moderate workload, averaging 5.3 class hours per week during 33 weeks of the year.
7. This calculation was made taking into account the current minimum wage in the Mexico City metropolitan area in December of 1994, \$623 Mexican pesos per month, or approximately US\$80.00, at an exchange rate of \$7.80 Mexican pesos to the dollar.
8. These terms for the Permanence Fellowship were established in 1994.
9. Mexico. Universidad Autónoma Metropolitana, Informe del Rector General 1990a, p.12.
10. For reasons previously explained, the Permanence Incentive can also theoretically be obtained without being involved in research, by summing other diverse activities. But this would suppose, at any rate, realizing work complementary to teaching, such as occupying academic committee positions or publishing cultural works. Many professors do neither of the above; there is an important contingent whom are exclusively dedicated to teaching, and whom without the Teaching Career Incentive would be excluded from the system of incentive payments.

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