

Higher Education Reform in Morocco

I - Introduction

In the 1980s, Morocco embarked on a set of reforms which aimed at liberalizing the economy. The main scope of the adjustment program was to increase the competitiveness of the economy. Morocco liberalized its foreign trade, achieved current account convertibility for residents and capital account convertibility for foreign investors, relaxed price controls, undertook important fiscal and monetary reforms, liberalized its financial sector, and undertook a privatization program targeting the many publicly owned firms. The important transformation of the economy and the resulting change in the role of the state transformed the skills required from university graduates. In fact, instead of training high school professors and civil servants, the university was now in need of training graduates able to accompany the growth strategy of an economy open to the rest of the world and led mainly by the private sector. Very few of the establishments of higher learning in the system were capable at the time of producing graduates with this "new" type of training.

The system of higher education in

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Morocco is based on the French model. It includes fourteen public universities, one university with a special status, thirty-three specialized institutes, a large number of teacher-training schools, and eighty-three small private institutes of higher education. Each university is divided into faculties and schools of engineering and other types of establishments recently created. There exist three types of faculties: first the faculties of law, economics and political sciences, second the faculties of letters which train in philosophy, literature and foreign languages and third the faculties of science which train in mathematics, biology, physics and other hard sciences.

All students who successfully pass the baccalaureate examination (that is the examination attesting to successful completion of high school and required for university entrance) have the right in the same year to enroll in one of the public universities free of charge. They are also often offered a small stipend to cover part of their living expenses. The students, however, are required to register at the university which is closest to the place where they received their high school diploma. The best students usually go to public institutes where entrance is highly selective. The private institutes offer training in a small number of fields such as business and computer science and require the payment of a fee and sometimes a selection process.

Some 250,000 students are enrolled in the public universities, the majority of whom are divided equally in the faculties of law, economics and political science on the one hand, and in the faculties of arts and sciences on the other. The remainder conduct their studies in public institutes (9,000 students) or in schools preparing teachers for primary and secondary education (16,000).

Every year some 30,000 new students seek a place in one of the existing universities. This number puts great pressure on existing establishments given that, as we will see below, most colleges and universities already enroll more students than they can properly train, and there are very few new establishments created due to budget constraints. This pressure is expected to continue given the age structure of the population and its growth rate. In this context it is worth noting that only some 60 percent of all students attending the last year of high school pass the baccalaureate examination.

The Ministry of Higher Education plays a significant role in the

management and functioning of public universities. The professors and administrators are civil servants and the budget of each establishment is set by the Ministry of Higher Education. The program and degrees in each field are set by decree.

The status of the public institutes is slightly different from that of the universities because they were created by specific ministries (such as the Ministry of Trade and the Ministry of Planning) to respond to shortages of graduates in a field they needed to have developed. If the graduates of these institutes are no longer hired automatically, the respective ministries still play an important role in their management. The private institutes of higher education are authorized for operation and supervised by the Ministry of Higher Education.

As discussed above, the existing system is unable to generate the type of skills required by an open economy. At the same time the stabilization program, in order to reduce the high budget deficit of the 80's, strongly restricted hiring by the state. These two trends combined translated into a very high rate of unemployment – around 28 percent – among university graduates, which is about twice the country's overall rate.

The inadequacy of the training provided by the existing system of higher education together with the needs of the job market led, after some attempts at readjusting the system, to the conviction that a total reform was required.

Though the reform currently being undertaken includes a number of innovative and positive elements, it still faces some serious hurdles. For example it does not specify a timetable for the execution of recommended actions; it does not rank the elements of reform in terms of priorities; it does not specify the financial requirements for the implementation of the reform. Beyond these relevant questions the reform program does not adopt a strong position on two politically sensitive questions: the matter of non selective access for all high school graduates to the university and the payment of fees by the students.

The paper will first describe the various attempts at reforming the system that were undertaken since independence. The second section will highlight the elements that act as constraints to reforming the current system. The third section will evaluate the content and progress of the

ongoing reform essentially by looking at the "Charter of Education," at the new law of higher education, and at the work of the various committees presently preparing to implement the reforms.

II- The History of Higher Education Reform in Morocco

Morocco hosts one of the oldest universities in the world, "El Karaouyne," founded in the 9th century. However, the first modern university was founded in July 1959. It resulted from the transformation of schools and research centers founded in Morocco during the French protectorate. Two centers of higher education date from the 1940's and were established during the French protectorate: one dealt with law, the other with science. Two schools of higher education (the school of agriculture in Meknès and the school of administration) and two research institutes (in the study of natural resources and sociology respectively) were also established during that period. These centers, schools, and institutes were transformed at the end of the protectorate into scientific research institutes. In the 1960's the school of Ech-charia (Fès), Al Logha, Ossoul Eddine and Echaria (Agadir) were added to the University El Karaouyne and other higher education schools were created (a School of Engineering, a research center in Arabisation, and the School of Medicine).

In 1970 the first generation of students who had begun their primary education after independence arrived at the university. A first major conference, the "Ifrane Conference," aimed at reforming the system, took place. It concluded that Morocco should reorganize, re-structure, and support its system of higher education. This led to a set of measures among which were the generalization of scholarship to all higher education students, and the increase in the amount of scholarships in 1974 and 1977. It should be noted here that at the beginning of the 1970's the price of phosphate was increasing, so Morocco undertook major projects on the assumption that the price of phosphate would continue to increase, making it a clear case of "Dutch disease." In 1975 a new law on higher education was passed reorganizing the university system, which then consisted of six universities. Despite significant construction efforts and an increased capacity, it was necessary to send a large number of Moroccan students to study abroad in order to meet the demand.

In 1980 the demand was so high that a second Ifrane Conference met to decide whether a selection process should be introduced at the university or whether entrance should be left open to all high school graduates. The decision was to leave the university open to all high school graduates, to increase the system's capacity, and to create new schools and faculties. In an attempt to diversify the existing system, establishments copied from the French schools of trade (Ecoles de commerce) were introduced but required teachers. The latter were trained within the university in the equivalent to a master's program that was called "La Formation des Formateurs," but this was abandoned a few years latter.

In the 1990's the problems within the system of higher education were becoming more and more evident as the number of unemployed university graduates increased. A reform project was launched that introduced new types of higher education establishments, such as the Higher Schools of Technology (EST), the faculties of Science and Technology (FST) and the Trade and Management Schools (ENCG). They aimed at offering more diversified curricula and at increasing the likelihood of students finding work after graduation. However, they enroll only a few hundred students each and are economically inefficient because they require large investments to operate.

In 1994, H.M. the late King Hassan II invited a parliamentary committee to which experts were added to discuss and propose a new education strategy and a reform of the educational system. This national commission included 330 members representing the unions, the administration and the socio-professionnal groups. The commission was adjourned in 1995.

In 1997, a new reform project was launched. It included a revision of the status of university professors following discussions with the unions. A transformation of the master's and doctoral programs was conducted through new legislation. Doctoral programs could now be entered only after a selection process and a large degree of autonomy was given to the university regarding the management, curricula and conduct of these programs. Various committees were created to discuss an overall reform of the higher education system and a reform proposal based on experiences and on suggestions by professors at various Moroccan

universities was elaborated. A discussion of an education charter and the need to reform the 1975 higher education law had become evident.

III- The Constraints to Reform

Everyone agrees that a reform of the higher education system is necessary. If one analyses the rate of waste and the number of years taken by the average student to complete his or her degree this becomes even more evident.

At first one has to note that it is mainly the "traditional" universities, namely the faculties of law, and arts and sciences that face the greatest difficulties.

However, even if that is true, and even if the other establishments of higher education are different, they have their own hurdles to cross, and should be included in the overall picture of the system for it to be understandable. The fact that some schools, for instance, have a selection process at entry makes them significantly different from those that allow free access. While this allows them to control the quality and the number of students, and thus to offer higher quality training, (though to a very small number of students) it does not mean that the utilization of their resources is optimal.

When the university is taken as a whole, the resources that it can draw upon may disguise the significant differences in academic units within each university. The ratio of teachers per student may for example look "sufficient" for a university, but when one looks at a particular faculty or school within the university, that ratio can be either extremely low or extremely high given the resources of the country. Furthermore, the teaching staff in some units might have a majority of professors holding a Ph.D. degree or equivalent, while others might have a large majority of professors holding only a master's degree. This is especially important in Morocco because the various establishments belonging to a university are under the supervision of the university, but act independently one from the other.

All of this is to say that the average numbers given at the national or at the university levels hide significant establishments and regional differences and may be misleading. This is to some extent taken into account in the ongoing reform project, because it plans to create a large

degree of interdependence between the various institutes or faculties within a university, where the professors would now teach in one or another of them as required.

To present the constraints to reform and to illustrate the differences between faculties included in the same university, we calculated some ratios based on data for the year 1995-1996 for Mohamed V University in Rabat (Agdal).

We also indicated the important regional differences by comparing the University Mohamed V in Rabat (Agdal) with the University Moulay Ismaïl (Meknès).

The University Mohamed V in Rabat (Agdal) is composed of six establishments: the Faculty of Letters, the Faculty of Law, the Faculty of Science, a public Institute training engineers called the Mohamedia Engineering School, a technology school in Sale and a scientific institute. Tables 1 through 5 give a number of ratios for each of these units calculated on data available for the year 1995-1996. Recruitment in the public sector being low and budget constraint very high, the demand for higher education on the rise, we do not expect the ratios to have changed very much since then. The same tables are repeated in table 6 to 10 for the University Moulay Ismaïl of Meknès to highlight the important regional differences.

Table 1 clearly indicates that the bulk of the students are in the Faculty of Law in which students earn degrees in law, economics or political science. Within this faculty the degree in economics is the one that draws the largest number of students essentially because it is the one that is perceived as providing the highest likelihood of finding employment. As a result of the automatic and free access for all high school graduates to the faculty the enrollment has significantly expanded during the last decade.

Table 1 also shows the stress on existing resources. A very small percentage of those who enroll graduate within four years (the time theoretically required to obtain the "licence" degree which is equivalent to a Bachelors degree). This rate is the lowest in the Faculty of Science where only 11 percent of those who enroll complete their degree within four years. It is still low in the Faculties of Law (23 percent) and Letters (30 percent). The dropout rates are extremely high – between 52 and 72

percent. This significantly increases the cost per student. The units other than faculties that are part of the university are the Schools of Engineering and the School of Technology that train students in two year programs that are very selective. They have very low drop rates but as we will see later are in economic terms extremely expensive.

The pedagogical resources are insufficient in some faculties such as the Faculty of Law where there is around one teacher per 100 students. This is aggravated when one looks at the exact position of the teacher. The rate drops to .55 when we differentiate between teachers with a Ph.D. or equivalent and others. At the same time, the faculty of science counts some 10 teachers per 100 students and the Mohamedia School of Engineers some 20 teachers per 100 students.

The third table shows that the equipment is often lacking and that some faculties are overcrowded. If the number of seats per 100 students is as high as 758 and 547 seats per 100 students in the schools with restricted access, it drops to 113 in the Faculty of Science, to 87 seats per students in the Faculty of Letters and to 26 seats for 100 students in the Faculty of Law. The library and administrative space also differs widely from one establishment to the other.

The structure of the operational budget given in table 4 shows that the largest part of the budget goes to civil servant teachers. Almost 80 percent of the budget is spent on salary expenditures in the Faculty of Science and more than 50 percent in all other establishments except the EST.

When the social expenditures are added to salaries almost all the operational expenditures are accounted for. The remainder – which is less than 10 percent in the faculties – is also spent indirectly in the form of salaries to visiting professors.

The cost per student is the lowest in the Faculty of Law and the highest in the School of Engineering. It is worth noting that the cost per graduating student is in effect even higher in the Faculty of Science than in the engineering school.

The administrative staff is very insufficient in some faculties. By administrative managers, we basically mean staff holding the equivalent of a bachelor's degree. The other staff really includes low skill personnel. In the Faculty of Law for example, only one administrative staff member

is available for every 100 students and only one administrative manager is available for every 500 students. These rates are very high in the specialized schools with more than 20 administrative staff per 100 students. The availability of qualified administrators is particularly important for the reform that we will present below in which we believe the credit system should be introduced.

The problems in the faculties are compounded by the fact that academic undergraduate programs are very rigid. The programs are set by decree and there is no possibility of transfer from one program to another or from one faculty to another.

The trends found for the faculties and schools with restricted access continue to hold for more recently created universities. If anything, the problems there are even more important. The extent of these shortcomings as well as the perceived lack of relevance of the actual training for the job market has led to the elaboration of an education charter which includes a strategy for the entire educational system and a law of higher education.

IV- The Present Reform of Higher Education

Today's reform centers around two new legal documents: the education charter, which defines an overall educational strategy and the law on higher education, which organizes the system of higher education.

1) The Education Charter

The education charter provides an institutional framework, and a significant reform program including a number of specific measures dealing with the system of higher education.

The task of elaborating this charter was given to a national committee known as COSEF (Commission Spéciale de l'Éducation et de la Formation or The Special Committee on Education and Training).

The committee sought to be highly representative of various segments of the society. 23 members of the committee (2 advisers to His Majesty the King, 13 members of political parties or political associations, 8 members of the unions) represented the political sphere and the unions. The cultural aspects were taken into account as representatives of the councils of ulemas, the heads of faculties and

schools of higher education in different disciplines, specialists in education, and lawyers, were all part of the committee. However only 6 members of the committee represented the private sector, the civil society and the parents of students (Cheddadi in Prologues 2001).

The commission published the results of its investigations in October 1999. A synthesis was adopted by the parliament and named The Education Charter.

The following presents a number of reforms in the higher education system considered as necessary by the charter.

a) The Role of the Administration and University Autonomy:

The charter recognized that the existing administrations of the educational system are too costly in terms of budget expenditures and that their number is so large that it leads to inefficient policy. The charter recommended the audit and evaluation of these administrations and their reorganization to make them more efficient and operational. It considered that unless this effort of redefinition of the role of the central agency is made, the implementation of the charter could be hindered. The university should be given a large degree of autonomy and it should be recognized that the Ministries cannot face the challenges of science, culture and pedagogy, all of which should be left to the university itself.

Supervision by the Ministry can be maintained, but the role of the central agencies versus the role of the universities should be reevaluated to insure a significant process of decentralization. By autonomy of the university the charter means autonomy in scientific, pedagogical, financial and administrative aspects of university life. For example, the universities will be able to offer their own degrees as well as those set by the state and related to the new programs of the higher education system. These degrees could be in continuing education, in languages or in other fields.

The universities will receive state subsidies on the basis of specific criteria that have yet to be defined. However, they will also have their own financial resources, which they will be free to manage. These funds will be the product of research financing, continuing education, partnerships with the private sector, and tuition fees. As far as

administration is concerned, the charter innovates by stipulating that the university "manages its personnel in all their categories" (Article 150)⁽¹⁾, thus going beyond the day to day management of infrastructure and equipment. This would imply the decentralization of all personnel (professors and administrative staff) from hiring to retirement and promotion or the annulment of contracts.

The spirit of the charter also implies that professors and administrative staff will in the future be hired on a contractual basis, but the charter stops short of being explicit about the contractual terms, essentially because it fears the reaction of professors and because it wishes to respect the autonomy of the universities.

The important question of what criteria to use in hiring personnel at the universities that permit free access is often not raised because the possibility of hiring civil servants "for life" is just not there due to budget constraints. A diversification of the status of personnel would allow the hiring of more professors and members of the administrative staff on a contractual basis. Furthermore, the procedures for evaluating, selecting and promoting the professors (whether they are civil servants or on contract) must be made more reliable and equitable.

b) Integration of the university

The present situation is such that each academic unit within a given university operates almost independently from the other. Each university has a name, a rector, an administration, and a council, but has little value added as to the management of the university.

The integration of the university means that it would become a living entity, able to share infrastructure, teachers and other resources among its different units. It should also be able to establish common curricula, to allow the movement of students from one-degree program to the other, and to set interdisciplinary research teams. This integration should apply not only to the faculties, but also to all other establishments of higher education, which are today highly separated. In some establishments this would reduce underemployment of resources, and in others it would decrease the stress on existing resources for

(1) The articles refer to articles of the Education Charter

infrastructure, maintenance, supervision, equipment and the like.

The charter emphasizes this integration. It stipulates that, while awaiting the reform, which should be completed within three years, establishments may continue to manage their own sections (Article 152).

Most evidently the charter does not recommend taking resources away from the establishments with sufficient resources and transferring them to "poor" establishments. Rather it seeks to rationalize and to optimize existing resources in order to improve the overall level of all academic units by integrating them into the university.

In the past, bureaucratic, security and real estate motivations as well as improvisation led to the spatial, institutional and pedagogical dispersion of units within the university. Recognizing this constraint, the charter recommends the careful management of the different steps of the transition to an integrated university.

Beyond the scientific and curriculum synergies to be generated from this integration, there exist a potential for scale economies in each university in terms of the utilization of managerial skills, professors and external partnership. Modern tools of management should allow scale economies at the level of the registrar, examinations, budget planning, personnel management, library resources, maintenance, and others.

These services would perform better with a university whose size is "manageable". One criticism that has been made here is that this process would remove these services from the students. One has however to take into account the fact that existing services are operating in a rudimentary way without prospect for improvement, simply transferring information to the ministry of higher education or to students.

c) Pedagogical Reform

The charter abolishes the degree known as "licence" and instead introduces new notions. Among the new concepts are the semester (the yearly evaluation period is replaced by two semesters per year or three if the summer semester is included), the common trunk, and the possibility of reorienting students during their program.

The new degrees recommended by the charter are degrees of higher education which are either professional or fundamental (Diplôme d'Enseignement Universitaire Professionnel DEUP or Diplôme d'En-

seignement Universitaire Fondamental DEUF) and require five semesters of study each. This first university degree is based on a common trunk including courses in methodology, communication, basic concepts, and some progressive specialization. A second university degree leads to a "master's" degree after a second set of five semesters of study.

A third university degree is composed of one year of study plus three to four years of a doctoral program. A number of points in this system will need to be clarified, and the charter allows three years for the reform to be clearly and specifically delineated. Some comments, however, can already be made. The notion of a semester cannot apply only to a particular duration or time-scale: it assumes the introduction of the credit system. At the same time a time frame should be set for the degree requirements to be completed to avoid students spending too much time in acquiring their degrees and thus losing the coherence of a program.

We have seen above that both a professional and a fundamental degree are planned for in the charter. In fact the charter clearly stipulates "the integration of structures of a general, academic or professional nature" (Article 79) and advocates the need to "regroup and coordinate the different components of the post high school apparatus, at present scattered"(Article 78).

The introduction of the credit system also requires the orientation and follow-up of students during their program. The charter plans for counseling services to be set at the university. The staff of these services is yet to be trained. The charter advocates as well the creation of a national agency for the evaluation and orientation of students.

d) Coordination and Inter-University Regulation

Despite the increased autonomy of the university, there is a need to harmonize the norms, the academic and pedagogical principles, and the management of the system of higher education of which the universities will be in charge. Taking this into account, and in an effort to avoid bureaucratic and authoritative supervision, the charter recommends, in very prudent terms, the creation of a "national agency of higher education coordination" in charge essentially of the harmonization of pedagogical and scientific norms and criteria. According to the charter this agency should be created on the basis of a large consultation in order

to permit both university autonomy and the need for coherence in the orientations of the system of higher education. Even if this is not explicit in the charter, the inconclusive results of the existing formal national committees calls for the establishment of an agency that would be more of an association or a private federation regrouping the various universities.

e) The Private Sector of Higher Education

The charter plans for incentives to be given to the private sector of higher education and for the regulation of its units. The recommended incentives are to be provided for a period of 20 years and given to establishments answering to specific criteria. How these planned incentives will be established depends on the political will and the priorities set by the government in terms of the distribution of resources.

The charter did not go so far as to recommend that the state should supply an across the board subsidy of the private sector of education.

As for the regulation of this sector, the multiplicity of actors should be avoided. One possible solution would be to have the programs of the private establishments accredited by the federation of universities described above.

f) Tuition Fees

The charter recommends the introduction of tuition fees at the university level within three years, after taking into account the student's merit and family income. This is a very sensitive question and was the subject of intensive debate. The charter gives many conditions to the establishment of fees and recommends that only those who have the financial means should contribute to the financing of their learning.

Before instituting the fees, the universities will have to improve the quality of the training offered and to introduce the participation of the students into the management of the university. All tuition receipts will have to be kept in the university. Furthermore it is specified that the objective of the tuition fee is less to reduce the budgetary cost to the state than it is to induce the involvement of its users into the working of the establishment.

g) The Language of Instruction

Another sensitive issue is the language to be used in teaching at the

university. The charter recommends that efforts be made to bring about national scientific expertise in the Arabic language and the creation of higher education "branches" of scientific, technical and vocational training in Arabic. This is to open the possibility for students trained in Arabic in secondary schools to follow a program. However, the existing training in French will be maintained.

The second direction is to reinforce the knowledge of foreign languages. These languages will be introduced earlier in the primary schools and it is recommended that scientific subjects be taught in secondary schools in the language used at the university. This means in effect using French to teach scientific subjects in high schools.

2) The Higher Education Law

The charter's recommendations for the institutional aspects of the university were organized within a law passed in June 2000. This law reiterates the principles set down in the charter and puts into law many ideas presented above.

One hundred articles are grouped under six headings. The first section deals with public higher education. It covers the role and organization of the university (describing the composition and status of the university council and president as well as listing the budget components and the structure of the programs), and presents the role and organization of higher education establishments whether or not they are part of the university system.

The second section covers units within the private higher education system, which will be allowed to apply for accreditation and therefore allow its students enter the public higher education system.

The third section describes the social services to be made available to students.

The fourth section discusses the regulatory bodies, such as the national committee for higher education coordination and the evaluation of the system of higher education.

The fifth section describes the fiscal incentives and the sixth the transitory dispositions.

Conclusion

When one looks back at the history of higher education reform in Morocco, one cannot but see a number of missed opportunities. Most of the previous reform projects saw the real problems, but delayed taking corrective actions essentially for political reasons. The present ongoing reform faces the risk of not reaching its ambitious objectives for similar reasons.

It correctly identifies the constraints to the progress and proper functioning of the higher education system and develops an apparatus to respond to these problems. The projected integration of the university should lead to economies of scale and allow a useful redistribution of resources among faculties presently operating completely independently from one another. The projected autonomy of the university is useful for the implementation of reform as establishments ready to introduce elements of reform can do so independently. The universities that are ready to introduce significant elements of reform are encouraged to do so. The ones that need more preparation time will be able to delay the introduction of the new strategy, but only up to a point.

The plan to make possible the reorientation of students during their study, introduced in the reform project, responds to a recognized problem faced by the students today. The introduction of the credit system should make for a more optimal use of resources and should partly attenuate the problem of waste. The private sector of higher education will be reinforced by the new regulations provided in the education law.

However the question of admission and of selection is addressed only indirectly. Given the autonomy that will be given to each university, they will be allowed to set their admission criteria a priori. However it is not explicitly said that students with high school diplomas could consequently find themselves unable to enter an establishment of higher learning. The same problem applies to tuition fees. There are so many conditions surrounding the introduction of tuition fees that it is not clear that they can be introduced. The question of fees is relevant because the type of reform planned could entail significant costs.

Unless the universities can control the number of students they

accept as well as the means to supervise them, it will be difficult for the changes advocated by the charter to materialize. A possible solution could be that access control be made possible at the end of the first two years of university studies, and that at the same time an alternative, such as distance learning, be offered. It is also possible to hope that the new organization might reduce the pressure during each semester.

However, as long as the unemployment rate among the country's youth does not decrease significantly, and the change in the population growth rate does not translate into smaller numbers leaving high school in any given year - and neither of these two contingencies appear imminent - the demand will remain very high.

**Table 1: A Study of Student Graduation Time (cohort)
University Mohamed V Rabat - Agdal (1995-1996)**

	FLSH	FSJES	FS	EMI	EST	IS
Percentage of students graduating after 4 years	30	23	11	—	—	—
Drop out rates	52	59	72	,0	—	—
Cost increase coefficient	1.91	2.26	2.83	,0	—	—
Total number of students	6847	19510	4689	845	181	—

FLSH: Faculté des Lettres et Sciences Humaines, Rabat, Faculty of Letters

FSJES: Faculté des Sciences Juridiques, Economiques et Sociales, Faculty of Law

FS: Faculté des Sciences, Faculty of Science

EM: Ecole Mohamedia d'Ingénieurs, Mohamedia School of Engineers (2 years)

EST: Ecole Supérieure de Technologie, Salé, Superior School of Technology (2 years)

IS: Institut Scientifique, Scientific Institute.

Table 2: Pedagogical Resources
University Mohamed V Rabat - Agdal (1995-1996)

	FLSH	FSJES	FS	EMI	EST	IS
Number of teachers per 100 students	3.90	0.98	9.06	12.29	11.05	–
Number of teachers holding a Ph.D. or equivalent per 100 students	1.91	0.55	4.88	11.01	1.10	–
Number of teachers holding a master's or equivalent	1.99	0.43	4.18	8.28	9.94	–

Table 3: Equipment
University Mohamed V Rabat - Agdal (1995-1996)

	FLSH	FSJES	FS	EMI	EST	IS
Number of seats per 100 students	87.10	26.16	113.2	547.7	758	–
Number of m2 of library per 100 students	13.70	0.00	27.47	73.37	553.6	–
Number of m2 of administrative space	13.70	5.95	18.66	–	278.4	–

Table 4: Budget Constraint
University Mohamed V Rabat - Agdal (1995-1996)

	FLSH	FSJES	FS	EMI	EST	IS
Share of salaries in the operational budget	73.63	53.33	79.81	67.26	36.49	83.32
Share of social expenditures (scholarship, etc)	19.23	40.51	10.76	5.99	4.81	–
Others in operational expenditure	7.13	6.17	9.42	26.76	58.70	16.68
Annual operational expenditure per student (in US\$ 1000)	10	4	20	55	48	–
Annual operational expenditures per graduating student (in 000 dh)	19	8	57	–	–	–

**Table 5: Administrative Staff
University Mohamed V Rabat - Agdal (1995-1996)**

	FLSH	FSJES	FS	EMI	EST	IS
Total administrative staff per 100 student	3.21	1.09	6.93	26.15	20.99	–
Administrative managers per 100 students	1.14	0.20	1.15	6.39	8.84	–
Other administrative staff per 100 student	2.07	0.89	5.78	19.76	12.15	–

**Table 6: A Study of Student Graduation Time
University Moulay Ismail, Meknès (1995-1996)**

	FLSH	FSJES *	FS	FST	EST
Percentage of students graduating after 4 years	23	–	3	–	–
Drop out rates	54	–	79	–	–
Cost increase coefficient	2.02	–	3.56	–	–
Total number of students	6211	6148	5810	827	207

**Table 7: Pedagogical Resources
University Moulay Ismail, Meknès (1995-1996)**

	FLSH	FSJES	FS	FST	EST
Number of teachers per 100 students	2.29	0.76	4.08	6.41	9.18
Number of teachers holding a Ph.D. or equivalent per 100 students	0.31	0.08	1.39	0.24	1.45
Number of teachers holding a master or equivalent	1.98	0.68	2.69	6.17	7.73

Table 8: Equipment
University Moulay Ismaïl, Meknès (1995-1996)

	FLSH	FSJES	FS	FST	EST
Number of seats per 100 students	75.99	114.1	73.08	452.2	772.5
Number of m2 of library per 100 students	15.15	31.36	16.23	90.69	144.0
Number of m2 of administrative space	14.73	18.90	9.62	95.53	189.9

Table 9: Budget Constraint
University Moulay Ismaïl, Meknès (1995-1996)

	FLSH	FSJES	FS	FST	EST
Share of salaries in the operational budget	52.09	28.35	64.01	56.34	52.79
Share of social expenditures (scholarship etc)	41.71	63.34	27.18	22.16	12.69
Others in operational expenditure	6.20	8.31	8.81	21.50	34.51
Annual operational expenditure per student (in 000 dh)	6	3	9	13	29
Annual operational expenditures per graduating student (in 000 dh)	12	–	31	–	–

Table 10: Administrative Staff
University Moulay Ismaïl, Meknès (1995-1996)

	FLSH	FSJES	FS	FST	EST
Total administrative staff per 100 student	1.21	0.36	1.76	4.23	16.91
Administrative managers per 100 students	0.42	0.08	0.36	1.33	6.76
Other administrative staff per 100 student	1.21	0.28	1.39	2.90	10.14

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Document 1: Organisation générale, Février 2001

Document 2: Etudes de Cas, Février 2001

Document 4: Ressources Humaines Administratives, Avril 2001