

Ministry of Economic Planning and Development

CENTRAL STATISTICAL OFFICE

1990 HOUSING AND POPULATION CENSUS OF MAURITIUS

ANALYSIS REPORT

VOLUME IX — Education: Characteristics, Prospects and Implication

December 1996

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VOLUME IX - EDUCATION : CHARACTERISTICS, PROSPECTS AND IMPLICATION

FOREWORD

The Central Statistical Office conducted a complete Housing and Population Census in 1990. This was the sixteenth census for the country. A series of tabulation reports covering various topics such as housing, demography and fertility, economic activity, education, household characteristics, migration and disability was published during the following years. At the same time, an evaluation and analysis of the census data was carried out with the help of a regional advisor from the United Nations Economic Commission for Africa (UNECA).

This report, forming part of a series of analytical reports prepared by the Central Statistical Office covers educational characteristics, prospects and implications. The first part presents the educational system and structure in Mauritius and goes on to analyse the available data from census and surveys. The second part looks into the evolution of the participation of children in education and projects the school population for the coming few years. Implications of the projections are then presented in terms of teacher and classroom requirements.

I would like to convey my gratitude to the staff of the local analysts for the efforts put into the analysis and preparation of this report. My thanks also go to the United Nations Population Fund (UNFPA) and the United Nations Economic Commission for Africa (UNECA) for financial and technical assistance. Finally, the analyst team and myself are most grateful to Dr. K.V. Ramachandran for his guidance and supervision.

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Director of Statistics

Central Statistical Office
Ministry of Economic Planning and Development
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CHAPTER 1: INTRODUCTION

1.1 Focus

Education is an important aspect of each individual as it affects his/her life and career. It is a process through which one gains knowledge, develops attitudes, abilities and skills. While formal education is acquired through established systems like schools and institutions and is considered to be the principal means of imparting knowledge or making children literate, informal education is gained through day-to-day experience, contacts with the media, electronic or otherwise, films, books and so forth.

The necessity for literacy skills in daily life has been formally recognised, as everyone encounters situations requiring ability to read, comprehend, communicate or produce written symbols. Education serves many purposes: social, cultural, economic and political. An educated society helps a country to progress.

In Mauritius, education has been perceived by everyone as being a key to personal, economic and social progress. It has been made free, thus giving equal chance to everyone for being educated. From an economy based on agriculture, Mauritius has now developed important manufacturing and service industries sectors. More technicians and professionals will be needed to take up the challenge of the second phase of our industrial development. Thus education and skill acquisition will play increasingly important roles in the progress of the country.

The White Paper on Education was prepared in 1984 to review the education system that existed. The education was principally of the academic type, forsaking the technical and vocational skills necessary for direct employment. The white Paper proposed a system that would give equal opportunity to everybody at all levels and would also prepare people to fit the skills actually required by the labour market. The paper emphasized among other things, the need for a workforce more suitably prepared in terms of vocational and technical skills. The Industrial and Vocational Training Board (IVTB) was set up in 1988 with this purpose in view.

The Education Sector Master Plan (ESMP) was prepared in 1991 with a view to improve the education system and make it more efficient and adaptable to future needs; to reduce the low efficiency attributed to repetition and drop-out. In this context, the plan proposed a system of nine years of normal education with, in some cases, 3 years of vocational/technical education. To enable the achievement of this objective, legislation was passed in 1992 making primary education compulsory. This was to enable more children to leave the formal school system with a higher level of literacy and numeracy while at the same time reducing the extent of child labour. To meet the needs of industry emphasis is now being placed on the teaching of Science, Information Technology and Computer education among others.

The National Development Plan again points out the changes referred to in the Master Plan, that need to be brought in the existing system of education. The implementation of the Master Plan has started already and some of the proposed changes are taking place accordingly.

In this report, an attempt is made to evaluate, analyse and compare the educational statistics obtained from the 1990 Census and other surveys in order to delineate the characteristics, prospects and implication of education in Mauritius.

1.2 Historical Background

The Republic of Mauritius comprises the main island of Mauritius, the islands of Rodrigues, Agalega and Saint Brandon. Formerly a colony of France (1715-1810), Mauritius became a British possession in 1810. It became an independent sovereign state in 1968 and a Republic in 1992.

The Mauritian Society is plural. As a result of historical factors its population is made up of immigrants and descendants of immigrants from three continents- Africa, Asia and Europe. The population of the Republic of Mauritius at the 1990 Census was 1,056,660 (1,022,456 for Mauritius and 34,204 for Rodrigues). French creole is the lingua franca spoken by nearly the whole population, with English being the official language and medium of instruction and French the second language of social and business interaction.

The history of education in Mauritius can be traced back to 1767 with the opening of the first school in Port Louis. Education at that time was an exclusive right of a few privileged children. The development of popular or mass education was initiated in 1815, yet the provision of education for the masses progressed slowly, culminating in 1950 with a government sponsored programme of **Education for All**. This led to the immediate expansion of both government and aided primary schools so that primary school enrolment doubled from 42,340 in 1946 to 85,500 in 1957. At the secondary level, progress in education was relatively slow.

The educational system which Mauritius inherited from the British was more or less geared towards the training of students for white-collar jobs. Since Independence in 1968, the government's aim has been to transform the academic tradition into a modern one geared to meet the requirements of a young and developing nation. Though remarkable progress has been made so far in providing education for Mauritians, yet the most acute problem at present in the educational system exist in the intense competition at the primary level to secure a place in one of the high performing secondary schools.

CHAPTER 2: PRESENT EDUCATION SYSTEM

2.1 Structure

The education sector is divided into pre-primary, primary, secondary, tertiary and technical/vocational. Pre-Primary schools are run by Parent - Teacher Association (PTA) and private individuals. Primary schools are administered by government and religious bodies. The secondary schools are managed by government, religious bodies and private individuals. But all schools are ultimately controlled by the Ministry of Education, Science and Technology (MOEST) especially since 1977 when education became free. Primary education has always been free.

The present education system is originally based on the British pattern: it has six years of primary education leading to the Certificate of Primary Education (CPE); five years of secondary education leading to the Cambridge School Certificate (SC) or General Certificate of Education (GCE-O level) and an additional two years preparing students for Higher School Certificate or GCE (A level).

The first five years of Secondary Schooling are divided into two parts: the lower secondary (F1 - F111) where pupils follow a more or less common general course while FIV and FV prepare students for the SC Examination. In addition to the conventional SC, students may opt for the Technical School Certificate or the Business School Certificate. As from FIV, pupils may study both core subjects and a wide range of options. Unlike primary level, repeating a form is possible at any stage (with a maximum of one repeat at any one level), but students are however not retained in secondary schools beyond the age of twenty.

Tertiary education is offered in three local institutions. The University of Mauritius (UOM) offers Postgraduate and graduate courses, as well as a variety of sub-degree courses; the Mauritius Institute of Education (MIE) is principally concerned with teachers training, and educational training. Previously curriculum development also fell within the ambit of the MIE, but with the restructuring of the MOEST, the National Curriculum Centre for Research and Development has now assumed responsibility for that area, with the MIE providing vital consultancies on different subject panels. The Mahatma Gandhi Institute (MGI) emphasizes mainly Asian and African Culture and the humanities. Degree courses in Asian languages are also run in collaboration with the University. The Mauritius College of the Air (MCA) offers media services at all levels, inclusive of the Tertiary. In addition, a significant number of Mauritians study in institutions abroad in various fields.

The present system however has certain weaknesses, some of which are:

- 1. The non-attendance in pre-primary schools before joining the primary school of about 10-20% children (pre-schooling being generally fee paying except for those classes attached in primary schools)
- 2. The existence of a large disparity among schools at both primary and secondary levels and
- 3. High rates of drop-out and low internal efficiency.

The main objectives of the Education Sector Master Plan are to reduce inequalities, to rationalise the system and to increase its efficiency. Other implications of this objective include the following:

- (a) every child should attend a pre-primary school;
- quality of education should be improved at all levels and every child should reach an agreed standard of basic education.
- (c) the commitment and professionalism of primary school teachers should be improved;
- (d) difference in standards of schools should be reduced.
- the educational system should be compatible with the continued economic and social development of the country, and links between secondary education and the labour market should be strengthened.
- (f) more seats should be made available in tertiary institutions.
- (g) opportunities for lifelong education should be increased to enable adults to update their professional knowledge and skills.
- (h) the different abilities and aptitudes of those passing through the system should be developed to the fullest practicable extent, and should be assessed as a means of orienting them appropriately

2.2 Pre-Primary Education

Pre-primary education is mainly provided by private schools. They are mostly owned and run by non governmental organisations or private individuals. A survey was carried out in May 1993, where some 848 such pre-primary schools were contacted. It is estimated that there may be a total of some 900 - 1000 pre-primary schools operating in the country, of which 735 have applied for registration with the MOEST.

Government policy is to gradually extend pre-primary schooling opportunities to all children. Already, it is encouraging the opening of pre-primary classes in those government primary schools where spare classrooms are available.

The 1990 census figure showed that two thirds of children aged between 3 and 5 were attending pre-primary schools prior to their attendance at primary schools.

Pre-Primary school teachers are being trained at the MIE. About 75% of pre-primary teachers have followed some sort of training in their field and the Mauritius Institute of Education intends to set up new courses for that category of teachers.

2.3 Primary Education

Primary education is compulsory, lasts for six years, and is provided free and there is no discrimination on any grounds. Its objective is to provide a grounding in basic skills such as reading, writing and numeration and help the child to develop his potential to the full. The subjects taught are English, French, Mathematics, Environmental Studies. Seven Asian languages, namely Arabic, Hindi, Marathi, Modern Chinese, Tamil, Telugu and Urdu, are also taught to pupils who opt to study any one of them.

Pupils enter standard I at the age of five and take the Certificate of Primary Education Examination after six years of schooling. This examination is also used to rank pupils in the competition for access to the best secondary schools. To obtain a better ranking and thus improve their chances in securing places in those highly prized secondary

schools, many pupils repeat standard VI even if they have passed, take private tuition and resit the CPE.

By the end of March 1993, there were 281 schools providing primary education in the Republic of Mauritius with a school population of 125,543. These schools included 223 government administered schools, 51 administered by the Roman Catholic Education Authority, 2 run by the Hindu Education Authority and 5 non-aided schools. Government schools with a total of 94,958 pupils accounted for 76% of the school population.

Promotion in primary schools is automatic and so far there is no provision for remedial education, so that many low achievers and late developers leave school without a certificate. The CPE pass rate for Republic of Mauritius is 59% for 1993. Nearly a quarter of all children fail the CPE even at a second attempt. Many of them do not even acquire an acceptable minimum standard of literacy and numeracy. Among the causes of failures are:-

- (i) the curriculum which is overloaded in certain subjects(this explains whychanges are being brought in);
- (ii) automatic promotion, combined with a lack of remedial teaching. In this context, it is expected that in 1994, the CPE will be made to assess Essential Learning Competencies (ELC) and Desirable Learning Competencies (DLC).

In 1993 there were 5,931 teachers in the Islands of Mauritius and Rodrigues. Out of these, 80% were employed in Government primary schools and the rest in aided and non-aided schools.

In order to increase the level of literacy and numeracy in the population, it is proposed to assess children as from Std III and consequently provide remedial assistance to those in need. In this context, the CPE Examination has been redesigned as the ELC & DLC. The ELC assess the basic knowledge, understanding, skills, abilities, interests, attitudes and values which are considered the minimum essential for all students to acquire at the end of a particular standard or stage. The DLC is meant for those who can go beyond the minimum essentials.

2.4 Secondary Education

Free secondary education was introduced in 1977. Secondary Education is to complete the process of basic education started in primary schools. After passing the CPE Examination, children are admitted to secondary schools or colleges for five years of schooling leading to the School Certificate (SC) Examination and a further two years after successful completion of SC, leading to the Higher School Certificate (HSC) Examination. Secondary Schools are locally referred to as colleges.

By the end of March 1993, there were 123 secondary schools in the Republic of Mauritius with an enrolment of 87,661. Out of these schools, 23 are state secondary schools and 100 confessional and private schools which are under the supervision of the Private Secondary School Authority (PSSA). Some 20% of all children go to state schools and 80% to private schools.

Table 2.1 - Number of schools, pupils, teachers and pupil/teacher ratio (Primary & Secondary Education) Republic of Mauritius (1983 - 1993)

	Pupil /	Teacher Ratio	26	21	20	19	19	20	21	21	21	21	21
	Total p	no. of Teteachers F	3,010	3,563	3,603	3,631	3,683	3,700	3,757	3,728	3,949	4,050	4,160
	T	· · · · · · · · · · · · · · · · · · ·	88	61	989	19	959	165	740	011	060	591	961
dary	slic	Total	77,188	73,961	71,686	69,719	71,059	73,765	77,740	78,110	81,090	83,591	87,661
Secondary	Number of Pupils	Private	61,622	58,200	55,887	53,833	54,882	57,585	62,115	62,883	64,595	66,577	266,69
	Nu	Govt.	15,566	15,761	15,799	15,886	16,177	16,180	15,625	15,227	16,495	17,014	17,664
	Number	of Schools	129	128	127	127	127	127	127	124	125	122	123
	Pupil /	Teacher Ratio	32	33	34	35	35	35	34	33	33	30	29
	Teachers	Oriental Language	1,753	1,754	1,664	1,651	1.702	1,683	1,675	1,743	1,727	1,718	1,668
	Number of Teachers	General Purpose	4,375	4,140	4,170	4,161	4,075	4,069	4,030	4,188	4,103	4,322	4,263
Primary		Total	138,790	135,391	140,714	144.697	144.130	140,486	137,929	137,491	135,233	129,738	125,543
	Number of Pupils	Private	31,016	31,471	32,582	33,373	33,665	33,225	33,514	33,341	32,894	31,447	30,585
	Nun	Govt.	107.774	103,920	108,132	111,324	110,465	107,261	104,415	104,150	102,339	98,291	94,958
	No of	Schools	278	277	278	277	277	278	286	287	288	283	281
	Vear		1983	1984	1985	1986	1987	1988	1989	0661	1661	1992	1993

Though secondary level education is free, the gross enrolment rate (for forms I to V) is only 50%. The minimal legal age for taking up a job being 15 years, it would seem that some children may be following some courses at the technical and vocational institutions, some working illegally and others are just idle at home. Also there is a significant number of drop- outs throughout the course, the higher rate being at form V with about 49%.

To remedy the situation, government is proposing compulsory nine years of schooling for all children. This implies that a child will only be eligible to enter the labour force after the age of 15. As per the Education Sector Master Plan, children who pass the CPE will follow the normal stream, whereas the rest will be taken care of by prevocational schools

In 1993 the number of teachers employed in the secondary sector numbered 4,160. Out of these 26% are employed in state secondary schools whereas the remaining 74% are employed in confessional and other private schools. The recruitment of teaching staff of state schools rests with the Public Service Commission whereas, in the case of Private Secondary Schools, it is done by the managers themselves with the approval of the Private Secondary Schools Authority.

Table 2.1 shows the time trend in primary and secondary situation in the country.

2.5 Technical and Vocational Training

The current system of education is more of the academic type, but some technical and vocational subjects are included in the curriculum at School Certificate level. However, the students opting for these subjects are relatively few in number. This may be due to lack of equipments in schools, unavailability of trained teachers, inadequate information on career prospects and higher studies, or generally the present perception of low status of technical jobs in the labour market. Since the country has changed from an agricultural to an industrial economy, it is expected that technically trained manpower will be in greater and greater demand, and hence, the necessity to equip young people with these practical skills.

There are four institutions, namely Sir Kher Jagatsingh Industrial Trade Training Centre, Prof. B.S. Upaddhya Industrial Trade Training Centre, Lycee Polytechnique Sir Guy Forget and the Industrial and Vocational Training board which provide technical and vocational training. The minimum qualification required to be enrolled at the two ITTC's is Form III but most of the students hold an SC Certificate. For the Lycee and University of Mauritius, the minimum qualification required is the School Certificate and Higher School Certificate or 2 A levels respectively.

The Sir Kher Jagatsingh Training Centre set up in 1967 runs courses of one year duration. The different courses offered are basic course in Mechanical Engineering and Craft Practice, Electrical installation and maintenance, Automechanics, Welding and Metal fabrication, Plumbing and Pipe fitting, Carpentry and Joinery, Cabinet Making, Masonry and concrete. Enrolment of full time students for year 1992 totalled 97.

The Prof. B.S. Upadhya Training Centre situated at Piton started its operations in 1980. Courses are offered in Maintenance and Fitting, Sheet Metal Work, Tractor Mechanics, Cabinet Making, Carpentry and Joinery, Radio and TV repair, Air

conditioning and Refrigeration. In 1992 there were 96 students enrolled for the full time courses.

In view of the increasing demand for such type of education, government set up the Lycee Polytechnique Guy Forget in Central Flacq in 1982. Among the different courses offered in this institute at skilled worker level and technical level are Automechanics, Maintenance and Production Mechanics, Electro technique and building construction. At the beginning the skilled worker level course was of a duration of three years but as from 1992, it has been reduced to two years and the technical level course which was previously four years has been reduced to three. In 1992, 231 students were enrolled for the skilled worker level course and 139 for the technical level.

The Industrial and Vocational Training Board (IVTB) situated at Ebene, was established in 1988 by the Government and became operational in 1989. It is funded by a grant from Government and a levy paid by the employers. It is autonomous and managed by a Council made up of seven representatives each from the private and public sectors.

The main objectives of IVTB are (a) to monitor the needs for training in consultation with relevant authorities; to administer and operate training schemes, and (b) to provide for, promote, assist and regulate the training or apprenticeship of persons who are or will be employed in commercial, technical or vocational fields. IVTB has identified the need for training in the following sectors and occupational skills: Agroindustry Agriculture, Automative, Bakery, Building construction, Clothing industry, Electronics, Footwear & Leather craft, Furniture making, Hotel and catering, Information Technology, Jewelry, Plastics Industry, Precision Engineering, Tool & Dye making and Printing. The occupational skills are: electrical and electronic skills, management skills, office skills, quality assurance, supervisors skills and trade skills.

The Board also monitors the quality of training through registration of private training institutions/firms which satisfy certain criteria in respect of the physical facilities, courses and trainers registered with the IVTB. As at July 1993, out of about 90 private training institutions, there were 59 already registered with IVTB. The full-time courses offered by IVTB are of three months to one year duration.

The IVTB also provides a 2-3 year pre-vocational training course to children of age 12-14, leading to a Certificate of Pre-vocational Training. This training is given in 11 centres including one in Rodrigues. Three more centres are under construction, one being a multipurpose centre in Rodrigues.

2.6 Tertiary Education

The tertiary education system comprises four institutions, namely the University of Mauritius (UOM), Mauritius Institute of Education (MIE), Mahatma Gandhi Institute (MGI) and the Mauritius College of the Air (MCA). The institutions possess their own decision-making mechanisms and have progressed in their own ways. They have laid more emphasis on certificate and diploma courses, applied and profession-oriented courses in the past. Many Mauritian also go overseas for higher studies. At present, there are about 2000 Mauritians studying in Universities abroad. The limited range of subject specialisation and concentration on diploma and certificate courses in Mauritius may be some reasons for students studying abroad.

It is important to note that a networking of these institutions is now in the offing - a Tertiary Education Development Plan has already been prepared with the assistance of foreign expertise and action on the Institutional Development Plans is nearing completion. The Tertiary Education Commission (TEC) has been conferred the responsibility of making the networking a reality.

2.6.1 University of Mauritius

The University of Mauritius (UOM) was set up in 1972 with a view to provide middle level manpower. It started as a development university. It is today expanding and offering more courses relevant to the demand of the country. For the past few years, the emphasis of the University's activities has changed: more degree courses have been initiated in different fields. The enrolment of first year degree students rose from 123 in 1986-87 to 613 in 1992/93.

The University is made up of five faculties namely the Faculties of Agriculture, Engineering, Law and Management, Social Studies and Humanities, and the Faculty of Science. The total enrolment for all level courses is about 1860 for year 92/93. Provision is being made to provide for more degree and post-degree courses and research. Cost recovery measures have been partly applicable for some courses.

2.6.2 Mauritius Institute of Education (MIE)

The MIE was set up in 1973 as a corporate body under the direction of the Ministry of Education and Science It is responsible for the training of pre-primary, primary and secondary teachers, and formerly, for curriculum development. MIE offers courses at certificate, diploma, degree and post graduate level to teachers. It collaborates with the MGI in the running of courses for teachers of Asian languages; with the University of Mauritius in the mounting of Bachelor of Education Courses, and with the Inspectorate of Ministry of Education and Science in the running of primary school teachers training and programmes. MIE also provides a seventeen-month course to pre-school educators, who are subsequently awarded a Certificate of Proficiency on completion of course Courses in Educational Administration are also organised for heads of school for better management and administration of educational institutions.

2.6.3 Mahatma Gandhi Institute (MGI)

The aim of the Mahatma Gandhi Institute (MGI) is to establish a Center of Indian and African studies and develop research. The Institute runs courses at Certificate, Diploma and Degree level The degree courses are conducted jointly with the University of Mauritius The courses are offered mainly in the following broad areas viz the Performing Arts, Fine Arts and Indian languages.

2.6.4 Mauritius College of the Air (MCA)

The Mauritius College of the Air (MCA) was set up with a view to promote education, arts, sciences and culture by providing media services at all levels of education. The services provided by this institution help to upgrade the standard of teaching and learning, and also to bring opportunities in life-long education. The audio-visual materials are prepared by MCA for formal and non-formal sectors, for example Environmental Studies, Sciences, Nutrition, Family Life Education, Health and

Distance Education. Various ministries also have recourse to the media services of the MCA for their various programmes.

So far education in Mauritius has been delivered through face to face contact. If more people have to be trained, then there is some constraint of places and thus people have to wait to be enrolled. Thus Distance Education, which is used by a large number of institutions world-wide, can be an effective strategy for training people. Mauritius has started on this project helped by the Commonwealth of Learning. People can thus benefit from this without disrupting their normal activities.

CHAPTER 3. EDUCATION CHARACTERISTICS

3.1. Introduction

Education has demographic and socio-economic implications. In Censuses and sample surveys educational statistics are collected from two types of questions: the first on attendance and the other on highest level attained. Both these questions relate to formal education only. Information on informal education has been collected through the question related to Vocational and Technical training.

In Mauritius there are two main sources for collecting information on education namely the Annual Survey in schools and the Population Census. Some ad hoc surveys carried out by the Central Statistical Office or other organisations also usually include one or two questions on school attendance and/or educational attainment.

3.2 Annual Surveys

Educational statistics are regularly collected from all primary and secondary schools by the Statistics Division of the Ministry of Education, Science and Technology through an annual survey. The information asked refers to school infrastructure and facilities; enrolment by sex, age and grade; teaching and non-teaching staff by age, sex, qualifications, years of service, marital status, place of residence, etc.

Questionnaires are used to collect information on schools and pupils. Regarding personnel, a database exists in the Statistics Division and every year a computer list with all particulars is sent to schools for validation. Both questionnaires and stafflists are sent to schools by post and the reference date is usually the last working day of the month of March Once these are filled in and updated, they are returned to the Statistics Section. They are edited, coded, and processed. Queries are cleared by phone or by calling at the schools. A 100% response is ensured.

The questionnaires are processed by computer and different tabulations are worked out. Since 1984, the Central Statistical Office publishes an annual Digest of Educational Statistics to disseminate the information collected. The digest contains tables on primary and secondary schools, enrolment by age, sex and grade; teaching and non-teaching staff by sex, occupational status, qualifications, length of service; pupil/teacher ratio, examination results. Information gathered from the tertiary institutions are also included in the report.

Statistics on the pre-primary sector are being collected since 1990. Some schools in fact are not registered, ostensibly because they do not satisfy certain criteria in respect of physical facilities and teachers' qualification. Hence the schools are not recognised. The inspectorate is carrying out a survey by calling at all the schools, to ensure that all the schools operating at pre-primary level are known and registered.

3.3 Population Census

Data on education are also obtained from the Population Census conducted by the Central Statistical Office. The 1990 Population Census (reference day: 1-2 July) included five questions on education namely: school attendance, primary and secondary education, tertiary education and vocational/technical training. In addition, questions were asked about linguistic group and languages usually spoken. A question

on languages read and written was included with a view to obtain the Literacy level. The detailed questions on education were required by the human resource development planning of the country which has started experiencing shortages of manpower in certain critical skill sectors.

Based on the answers to these questions the population 2 years and over was distributed by school attendance, (now, past, never) and by level reached. Also the population aged 12 years and over was tabulated by age and sex with language spoken and linguistic group.

Those who were attending school, had to report the grade being attended and those who had attended in the past reported the highest grade obtained. A person who was working and studying on part time basis had to report 'past' as school attendance. Similarly the school attendance for a person studying privately, on his own was 'past'.

Persons above 12 years of age, were required to answer the questions on tertiary education and vocational/technical training. The duration of full-time schooling/training together with the highest qualification had to be entered for someone having had a tertiary education. Similarly a person having completed some kind of training, apart from regular primary, secondary and tertiary institutions (i.e in private or public vocational and technical schools, secretarial or business colleges, institutes of technology) had to report both duration of course and the highest certificate obtained.

3.4 Quality of data

Most of the information on enrolment collected from annual surveys is extracted from the pupils' registers kept by management of different institutions. This information together with an up-to-date list of primary and secondary schools, is always available at the Ministry of Education, Science and Technology. However, information obtained from schools may be subject to mistakes like misreporting of age, whereas data collected during the 1990 Population Census may be subject to the usual errors like omission, misreporting of age, grade, etc.

3.4.1 Comparison of Census and survey data

The Census and survey took place more or less at the same time as the reference date for census was 1-2 July and for survey 30th June 1990. Therefore the data collected from both sources should not differ much and could be compared. We shall compare data both on grade and age distribution by sex obtained from the census and the annual survey in 1990 to assess the quality of census data.

3.4.2 Primary enrolment by grade

The 1990 Census reported 70,191 male and 67,832 female students in the primary sector while school survey (Tab 3.1) showed 69,555 males and 67,936 females. Comparing the two data, it is found that census enumerated 532 students more than the survey. While the boys showed a surplus of 636, the girls showed a deficit of 104. If we add up the number of children of primary age who haven't reported the grade, the number comes to 750 surplus male and 6 less females. Since the surplus appears for males, it may be possible that children who were attending the Pre-Vocational

Training Centres (where more courses are held for males) but may be giving the CPE Examination have been reported as attending Std VI.

Table 3.1 Comparison of Primary school enrolment by grade and gender from Census and annual survey - Republic of Mauritius - 1990.

GRADE		MALE		FEMALE				
	Census	Survey	Diff.	Census	Survey	Diff.		
I	9,777	9,870	-93	9,393	9,576	-183		
II	10,090	10,145	-55	9,829	9,848	-19		
111	10,736	10,744	-8	10,510	10,549	-39		
IV	11,529	11,548	-19	11,265	11,413	-148		
V	12,065	12,042	23	11,824	11,808	16		
VI	15,994	15,206	788	15,011	14,742	269		
Total	70,191	69,555	636	67,832	67,936	-104		

A gradewise analysis shows that less pupils have been enumerated in lower standards (Std I-IV) and more in higher standards at census. The surplus at Std VI (reported at census) can be accounted for by the students studying privately for CPE Examination who may have reported themselves as attending Std VI at the time of Census. On the whole census showed an extra 0.4% children in primary schools.

3.4.3 Secondary enrolment by grade

The secondary enrolment at Census was 40,583 for males and 39,254 for females (excluding 150 boys and 101 girls whose grades were not stated). The corresponding figures obtained from school survey was 39,108 males and 39,002 females respectively (Table 3.2). Thus, the Census seems to have registered 1,727 more students (1475 males and 252 females). Since the highest surplus was for F V, it is possible that some students who were then studying privately for the Cambridge School Certificate or General Certificate of Education (O Level) have been reported as attending school, though instructions were given at the census not to include them.

Table 3.2. Comparison of Secondary school enrolment by grade and gender from Census and annual survey - Republic of Mauritius, 1990.

GRADE	MALE			 	FEMALE		
	Census	Survey	Diff.	Census	Survey	Diff.	
I	6,902	6,733	169	6,980	6,974	6	
l II	7,580	7,571	9	7,864	7,856	8	
III	7,267	7,133	134	7,256	7,350	-94	
IV	7,358	7,459	-101	7,245	7,514	-269	
V	7,219	6,084	1,135	6,177	5,611	566	
VI	4,257	4,128	129	3,732	3,697	35	
Total	40,583	39,108	1,475	39,254	39,002	252	

A study by grade shows that apart from FIV, boys have been over-enumerated in all other forms. The surplus in FIII and deficit in FIV can be explained by misreporting of grade in favour of FIII, while the surplus in FV can be accounted for by boys studying privately for GCE (0) and having been reported as attending school. It seems that the data at FI and FII are more or less accurate but some deficits appear at FIII and FIV. Girls also are over enumerated at FV and here again private students may have been included. On the whole, the difference is slightly more than 2% (around 3.6% for boys and 0.6% for girls).

The information collected from primary schools and the data from the census do not differ much. At secondary level, the data by grades seem to be slightly higher at Census, but the overall difference is not large.

3.4.4 Enrolment by single year of age (5-19 years)

The official age for primary and secondary school children ranged between 5 and 19. In our study we therefore consider only children of these ages by sex. Table 3.3 compares the numbers of pupils enrolled by age, reported at Census and at Survey.

The Census included a question on attendance which was asked about everyone above the age of two years. At around age five children can go to pre-primary or to primary schools, due to the restriction on the age of entrance to primary school, that is, a child should be five years before being admitted to primary school. While the survey data refers to pupils going only to primary schools. Census data includes all children in Primary and Pre-Primary schools. Also, there are private students aged 19 or less who may be studying beyond the secondary level and have been included at Census, but not

Table 3.3 Comparison of school enrolment by single year of age and gender from Census and Survey - Republic of Mauritius, 1990.

AGE		MALE			FEMALE	
(Yrs)	Census	Survey	Diff.	Census	Survey	Diff.
5	9,177	5,068	4,109	8,686	4,893	3,793
6	9,749	10,000	-251	9,422	9,737	-315
7	10,059	10,204	-145	9,855	10,053	-198
8	10,902	11,240	-338	10,722	10,981	-259
9	11,547	11,741	-194	11,207	11,483	-276
10	11,992	12,303	-311	11,815	12,106	-291
11	10,650	10,831	-181	10,637	10,769	-132
(5 - 11)	(74,076)	(71,387)	(2,689)	(72,344)	(70,022)	(2,322)
(5 17)						
12	8,714	6,782	1,932	8,615	7,143	1,472
13	7,210	6,585	625	7,106	6,648	458
14	5,983	6,094	-111	6,143	6,310	-167
15	5,936	5,775	161	5,700	5,571	129
16	4,939	4,750	189	4,763	4,925	-162
17	3,406	3,410	-4	3,009	3,079	-7 0
18	2,576	2,329	247	2,066	1,989	77
19	1,553	1.194	359	1,103	983	120
(12 - 19)	(40,317)	(36,919)	(3,398)	(38,505)	(36,648)	(1,857)

in survey since they are not attending schools. The Census figure for children aged 5 enrolled in pre-primary school is 8540, representing 48% of the five year old population. Similarly, for age-group 15-19, some 152 students were reported attending post secondary level, but the larger number are at age 18 and 19 years. Thus the 7902 additional children aged 5 years in school reported by the Census may be mostly the pre-primary school children. Again the 803 additional children aged 18 and 19 years may be mostly students who no longer attend regular school.

An analysis by single years of age shows that the Census has consistently enumerated less boys and girls at the younger ages 6-11, that is primary school age children. At higher ages except at ages 14, 17 for boys and 14, 16, 17 for girls there seems to be an over enumeration.

It is to be noted that the difference between the school population at Census and Survey at age five is as high as 4,109 for boys. In fact only around 52% of children aged five join primary school each year, due to the restriction on admission. Therefore the enrolment figures from the survey regarding children aged five refer to registration at the start of school year. The Census data refer to beginning of July. Thus the other (48%) children would have reached age five in the interval of six months at Census time. This difference can also be explained by the fact that half of children of age five would be in pre-primary school at Census time and are not accounted for in survey, which takes care only of primary school children.

The Census figures show an over-enumeration of 2,557 boys and 1,930 girls of age 12 and 13. After the CPE examination, some pupils get enrolled in pre-vocational training centres (PVTC) which admit pupils of age 12-14. Part of this overenumeration may be because of attendence at PVTC and thus reporting as attending school. Part may also be due to misreporting of age, especially since there's a deficit at age 14 for both boys and girls.

A surplus of 952 boys and 94 girls is recorded at Census at age-group 15-19. The difference can be explained by those students who study privately for GCE '0' and 'A' level examinations, students in ITTC and other private institutions, students in university and those in special schools, who are not covered by the survey.

Though differences are found between Census and Survey, yet part of them can be explained by the different system of enumeration, the types of persons included or excluded, etc. In any case, the differences are not very large (5.3% for boys and 3.8% for girls).

Information from the survey provides only statistics on children who are found in schools, but not those outside schools. Census on the other hand collects information both on children attending and not attending school by age. The data may be subjected to age and grade reporting errors, yet on the whole the enrolment ratio is less susceptible to error. Since there is a high correlation between age and grade, it is better to study the enrolment ratio at different levels.

3.5 School attendance

Analysis of 1990 data on school attendance of population aged 5-24 years compared to that of 1983 data indicate that more children have been attending school than in 1983 (Table 3.4).

The percentage of children in that age-group currently attending school has increased with a corresponding reduction in school attendance in the past and those who have never been to school.

An analysis by sex shows that the percentage of boys attending school is higher than girls in the Republic of Mauritius, though the increase was higher for girls than boys. Thus we observe a decrease in the gap that existed between the boys and girls attending school.

Though the percentage of those attending school is lower in the Island of Rodrigues compared to the Island of Mauritius, yet the percent increase between 1983 and 1990 is higher for Rodrigues and the gap is closing. Also in Rodrigues more females are attending school than males. Thus the gaps are closing and in Island of Mauritius girls are fast catching up with boys. Also the percentage of those who never attented school is seen to have decreased from 2.0 for males and 2.6 for females in 1983 to around 1.5 for both sexes in 1990. With free education and developments in the last few years, this ratio can be expected to have further decreased.

Table 3.4 Percentage of population aged (5-24) years by school attendance and sex (1983 & 1990 Censuses)

School	Repub Maur		Island of Mauritius		Island of Rodrigues	
Attendance			1983	1990	1983	1990
	1983	1990	1963	1990	1703	
Male						
Now	51.7	55.0	52.1	55.3	43.7	47.5
Past	45.9	43.5	45.8	43.3	48.4	47.6
Never	2.0	1.4	1.7	1.3	7.9	4.9
Not stated	0.4	0.1	0.4	0.1	-	- _
Total	100.0	100.0	100.0	100.0	100.0	100.0
Female		'				1
Now	49.5	54.5	49.7	54.7	42.2	49.1
Past	47.6	43.9	47.5	43.8	49.9	46.8
Never	26	1.5	2.5	1.4	7.8	4.1
Not stated	0.3	0.1	0.3	0.1	0.1	<u> </u>
Total	100.0	100.0	100.0	100.0	100.0	100.0

3.6 General enrolment Rates

The general enrolment rate is usually defined as the total enrolment at all levels and ages expressed as a percentage of the total population of school going age. Persons

customarily enrolled in educational institutions in Mauritius are of age 5-24 yrs. Therefore this age-group is used to calculate the general rates.

The enrolment rate for the Republic of Mauritius at 1990 Census was 62.5% for males and 61.9% for females, against 61.6% and 59.3% respectively at 1983 Census.

3.6.1 Age Specific enrolment ratios

The age specific enrolment ratios are purely demographic measures, showing the proportion of children of specific age studying at school. It is advisable to study the participation by single year of age because at the very young and higher ages, the variation in the rates could be sufficiently large as to hide some of the differences in the situation when aggregated ages are utilised. Ratios by single year of age make it easy for future calculations if any policy changes have to be made with regard to changes in the entry or withdrawal age of the education system. Moreover, data by single year of age make it possible to calculate approximate gradewise distribution and hence projections become more useful and relevant to planners/users of educational statistics.

The age-specific enrolment ratios for 1983 and 1990 Censuses for Republic of Mauritius given in Table 3.5 show a reduction in the enrolment rates at ages 5,11,12,13 for males. It is only after age 15 that substancial increases are reported. Regarding females apart from age 5, there has been increases in all ages but as from age 9 onwards the increases are significant. Graph 1 depicts the situation more clearly.

The reduction in rate at age five can be explained as the admission age being strictly brought to 5 years in 1990 against 4 1/2 years at 1983 Census. The rates at age-group 11-14 for males show a deterioration in attendance at academic school. This may be partly due to the fact that some children might be studying in pre-vocational schools after having completed the sixth standard. Also being a transition from primary to secondary schooling, some children might have withdrawn from school. The 1990 Census enumerated around 3200 children aged 12 to 14 years (representing 5% of population in that age group) in the labour force, though the legal age of taking up a job is 15 years. Unlike in 1983 when jobs were scarce and children had no alternative but to stay at school, in 1990 the situation had changed and jobs which were easily available did not require any qualification. This situation might be attracting children, and once they have completed primary school, they don't find the importance of continuing education. Also manual workers in construction are well paid, and need not be educated. So many people may not want to go through the pain of pursuing study when they can easily earn a living.

This deterioration in attendance may spread to higher ages as more and more jobs requiring less academically based education become available Moreover many children may prefer to go in for technical/vocational courses instead of academic studies. The Nine-year schooling system which aims at keeping the children in school (up to the age of 14), academic or vocational, therefore seems to be designed with this in view.

However, there has been substantial increase in the rates for higher ages for girls. Previously girls were retained at home after primary schooling to look after the household and younger ones in the family. But, nowadays people are more conscious

of education and there's less discrimination between boys and girls. The increase at secondary level is quite significant.

Table 3.5. Age specific enrolment rates (%) by sex, Republic of Mauritius - 1983 & 1990 Censuses

AGE (yrs)	1983 CENSUS		1990 C	ENSUS	% INCREASE 1983 - 1990		
	Male	Female	Male	Female	Male	Female	
5	97.0	97.1	95.6	94.4	-1	-3	
6	98.2	98.2	98.6	98.6	-	-	
7	97.9	98.2	98.5	98.5	1	-	
8	98.1	97.7	98.2	98.0	-	-	
9	96.8	96.7	97.4	97.5	1	1	
10	95.1	94.8	95.9	96.4	1	2	
11	91.2	88.6	90.6	91.6	-1	3	
12	80.0	74.1	75.1	76.1	-6	3	
13	67.5	60.9	65.2	66,6	-3	9	
14	58.6	53.5	58.4	60.0	-	12	
15	50.8	47.1	55.1	54.2	8	15	
16	42.6	39.7	47.8	46.7	12	18	
17	36.7	32.0	37.0	34.3	l	7	
18	24.5	19.6	27.4	22.0	12	12	
19	13.4	9.1	16.3	12.2	22	34	

Note: The rates at age 5 are irrespective of grade attended and include children in Pre- primary schools.

3.7 School Enrolment by grade

According to United Nations, school enrolment refers to enrolment in any regular educational institutions, public or private, for systematic instruction at any level of education during a well defined and recent period. Data on school enrolment are used to measure the extent of participation in the school systems by persons of school going age. For planning purposes, education planners use the current enrolment statistics to show the trend in school population in both absolute and relative terms. They are also effective measure in projecting future school population, under appropriate assumptions.

A comparison between the two censuses (Table 3.6), in absolute terms, indicates that at the primary level enrolment has remained more or less the same for both males and females. At secondary level the number for males is about the same whereas for females it has increased by 3000 as compared to census 1983. A study by grades shows that there has been a decrease at the early primary level. Similarly for secondary, less boys have been enumerated in F I, IV, V and more girls at all grades except Form V. Thus it is found that more girls are being educated nowadays than in the past. Also the gap that existed in the past between male and female enrolment has reduced considerably.

Gragh 1 - Age Specific enrolment rate (%) by gender -Republic of Mauritius

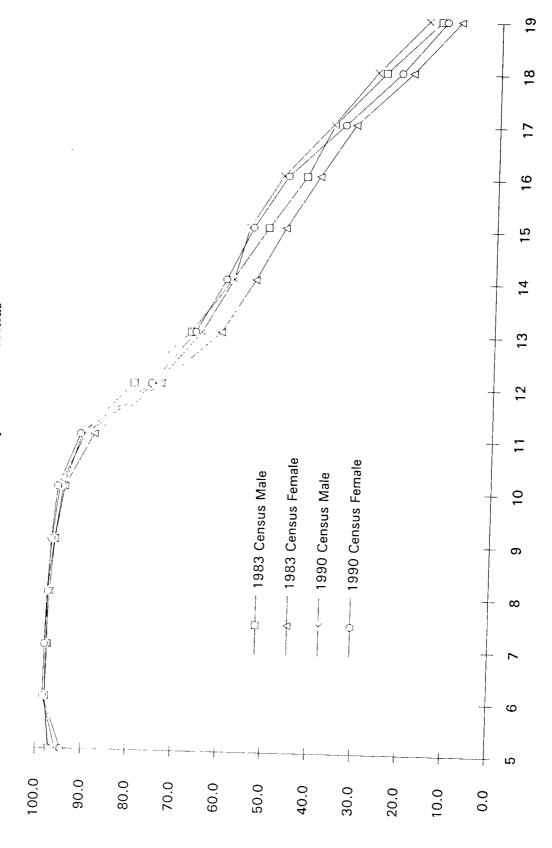


Table 3.6 - School enrolment by grade and gender 1983 - 1990 Census (Republic of Mauritius)

Grade	MA	LE	FEM	ALE
j	Census 83	Census 90	Census 83	Census 90
Std I	11,222	9,777	10,951	9,393
II	11,558	10,090	11,135	9,829
III	13,528	10,736	13,653	10,510
IV	10,371	11,529	10,049	11,265
v	9,777	12,065	9,673	11,824
VI	13,354	15,994	12,379	15,011
Total	69,810	70,191	67,840	67,832
		6.002	(925	6,980
Form I	7,607	6,902	6,835	1
II	6,492	7,580	6,158	7,864
III	6,685	7,267	6,014	7,256
IV	7,821	7,358	7,223	7,245
V	8,716	7,219	7,502	6,177
VI	3,267	4,257	2,467	3,732
Total	40,588	40,583	36,199	39,254

In relative terms, enrolment has decreased at primary level between 1983 and 1990 census from 93.8% in 1983 to 90.8 % in 1990. But the rates at secondary level increased from 42.9% to 49.2% (Table 3.7). The primary enrolment rates for both 1983 and 1990 censuses have been calculated on population aged (5-11) years. But enrolment at 1983 Census included children aged 4 1/2 years who were admitted in Std I and this explains the high rate of enrolment in 1983. If we do not consider children of this age, then the rate is on the increase.

3.7.1 Age - Grade distribution

For many practical purposes, it is necessary to have, in addition to age specific enrolment ratios, the distribution by grade also. For instance, if one were to plan for the type of teachers needed, for laboratory and equipment etc., one ought to have the number of children by grade.

Table 3.8 shows the age-grade distribution of the population aged 5-19 years in school at the time of Census in 1990. This table has been prepared from raw data and therefore contains certain inconsistencies as to compatibility between age and grade attended. The discrepancies may have arisen at the processing stage. However, there are very few cases to affect the quality of data on grade attending.

At the entrance age 5 years, the enrolment rate is 95.6% for boys and 94.4% for girls, of which 46% of boys and 44.8% of girls were found in the pre-primary sector. The enrolment rate at ages 6,7,8 are 98% for both boys and girls. It starts decreasing at age 6 onwards. At 12 the reduction in rate is substancial. This is due to the fact that age (11-12) years represent the transition from primary to secondary school when many drop out of the system. The rates are slightly higher for males till age 8 after which female enrolment rates are higher, but by age 15 boys again pick up. Thus, after age

15, less proportion of girls continue in schools. This may be due to preparation for household chores, entry into marriage and entry into labour force which might have removed them from schooling. If this be the case, it is a negative trend as it has implications on fertility, mortality, etc. The level specific enrolment rate has been worked out in table 3.7 and these rates are usually used for planning for the specific levels.

The level specific enrolment rate is the enrolment at a certain school level expressed as a percentage of the total population in the age-group corresponding to that same level. For Mauritius the age-group 5-11 is used for primary and 12-19 years for secondary. Although most children going to primary school are in the age-group 5-11 years, some will still be in pre-primary and some will be above that age. The same applies for secondary. The numerator, therefore is not necessarily wholly included in the denominator.

Table 3.7. Level-specific Enrolment Rates (%) by gender (1983, 1990 Censuses)

	Repub	lic of Ma	nuritius	Island	d of Mau	ritius	Island	d of Rod	rigues
School	Both	Male	Female	Both	Male	Female	Both	Male	Female
	sexes			sexes			sexes		
Primary									
Census : 1983	93.8	94.4	93.2	94.4	95.1	93.7	81.3	81.1	81.5
: 1990	90.8	91.3	90.4	91.0	91.5	90.4	87.7	86.8	88.7
Secondary									
Census : 1983	42.9	44.8	41.0	43.9	45.7	41.9	18.5	20.7	16.2
: 1990	49.2	49.4	48.9	50.2	50.5	50.0	24.8	24.4	25.2

From Table 3.7, it is observed that enrolment rate for the 1983 Census was higher than that of 1990 in the Republic of Mauritius so far as primary levels concerned. It was due to the fact that 4 1/2 year old children were in Std I in 1983. Whereas the rates in the Island of Mauritius has decreased for primary, those for the Island of Rodrigues show a significant increase of about 8% compared to 1983 Census. For the secondary, Rodrigues had a higher increase especially for girls. Though the rates have increased for Rodrigues compared to 1983 Census still they are lower than those in the Island of Mauritius. The rates for girls at both primary and secondary level are higher than for boys in Rodrigues and in the Island of Mauritius girls have almost caught up with boys.

Considering the fluctuation in the rates for 1983 and 1990 Censuses, what will be the future rates of participation? May be with the application of compulsory education at primary level, the rates may increase at primary. Before projecting the future rates of participation the situation has to becarefully considered. Care should therefore be taken in choosing the trend that it will follow.

Table 3.8 - Age/Grade distribution (%) of population aged (5-19) years attending school by sex 1990 Census (Male)

Total		92.6	5.86	98.4	0.86	97.2	95.7	90.4	75.0	65.0	58.3	54.9	47.6	36.8	27.0	15.5
	F VI		1		1	•		-			•	0.2	4.4	9.4	12.3	9.6
	FV	,	1			-			-	-	0.3	10.0	20.9	20.8	13.1	5.3
Secondary	FIV	'	,	,	,	1	ı	•		9.0	5.61	26.2	17.2	5.3	1.4	0.5
Seco	FIII	-	1	1	ı	ı	ı	•	8.0	23.8	25.0	13.7	3.9	1.0	0.1	0.1
:	F iI	,	1	ı	ı	•	ı	0.7	26.2	26.9	6.6	3.7	9.0	0.1	•	
	FI	,	ı	•	ı	-	6.0	19.0	28.7	6.8	2.0	0.4	0.1	1	,	1
	IA	ı	t	-	à	3.2	41.3	64.8	18.3	4.4	1.4	0.4	0.2	0.2	0.1	1
	Λ	ı	ı	-	2.8	42.6	48.0	4.9	9.0	0.2	0.1	0.1	0.1	ı	,	•
Primary	IV	•	•	3.5	43.2	47.2	5.2	0.6	0.1	0.1	0.1	0.1	0.1	,	•	,
Prir	III	i	2.7	45.5	47.7	3.7	0.4	0.2	-	0.1	0.1	0.1	•	-	-	,
	II	2.9	45.7	46.8	3.8	0.4	0.1	0.1	0.1	0.1	ı	ı	ı	-	-	•
	Ι	46.7	48 6	2.3	0.2	-	0.1	0.1	0.1	,	1	,		1	,	-
Pre-	primary	46.0	1.4	0.2	0.2	0.1	0.1	ı	•	•	1	1	ı	ı	,	-
Age		5	9	7	∞	6	10	П	12	13	14	15	91	17	18	19

Table 3.8 - Age/Grade distribution (%) of population aged (5-19) years attending school by sex (contd) 1990 Census (Female)

Total		94.4	98.4	98.3	97.9	97.4	96.2	91.5	76.0	6.99	59.9	54.0	46.5	34.1	21.8	11.4
	FVI	,		ļ		•			-			0.2	5.0	10.1	11.5	8.0
	FV	,					,	•	4	1	0.5	11.0	21.3	17.7	8.8	3.0
Secondary	FIV		ı	'	ı	•		,		9.0	20.9	26.5	15.8	5.3	1.2	0.3
Seco	F III		1	ı	1			1	6.0	25.6	26.2	12.5	3.5	9.0	0.1	0.1
	F II	ı	ı		•	ı	t	8.0	29.8	28.4	6.7	3.0	0.5	0.1	•	•
	I	-	-	-	•	-	0.7	20.8	29.8	8.2	1.8	0.3	0.1	•	-	-
	IN	-	•	-	•	3.0	41.0	64.6	14.7	3.3	9.0	0.2	0.1	0.2	0.1	•
	٨	-	ı	•	3.0	42.3	49.2	4.4	0.5	0.1	0.1	0.1	0.1	0.1	ı	1
Primary	IV	-	-	3.7	43.2	47.7	4.8	. 0.5	0.1	ı	0.1	0.1	0.1	-	ı	
Prin	III	1	3.1	43.9	48.3	3.9	0.4	0.1	1	0.1	ı	•		•	•	ı
	II	2.7	45.8	47.7	3.2	0.3	0.1	0.1	0.1	0.1	ı	ı	ı	1	ı	•
	Ι	46.8	47.7	2.8	0.2	0.1		0.1	0.1	ı	•	1	ı	,	,	•
Pre-	primary	44.8	1 7	0.2	0.1	0.1	0 1	0.1	•	•	•	•	1	•	ı	-
Age		S	9	7	∞	6	10	П	12	13	14	15	16	17	18	19

3.8 Literacy

According to the 1990 Census, some 19% of all residents aged twelve years and over in the Republic of Mauritius were unable to read or write any language. The rates for the Island of Mauritius was 18.4% while that of Island of Rodrigues was 43%. Table 3.9 gives a breakdown of the illiteracy rates by age-group and sex.

The proportion of illiteracy among the age-group 12-14 that is, roughly primary school leavers, was 8.4% (7.4% for Island of Mauritius and 28.9% for Island of Rodrigues). The rate of illiteracy increased among the higher age-group until nearly 46% of the population aged fifty-five and above were illiterate. This age-group includes older people and the high rate can be explained by the fact that older people never had the opportunity of going to school. There's substantial difference between the total illiteracy rates for males and females; as high as 23.9% for females and 14.4% for males.

Table 3.9 Illiteracy rates by age-group and sex - 1990 census

Age Group	Republic o	f Mauritius	Island of	Mauritius	Island of	Rodrigues
	Male	Female	Male	Female	Male	Female
Total	14.4	23.9	13.5	23.3	44.1	42.8
12 - 19	9 3	7.5	8.3	6.7	33.2	25.3
20 - 24	· 9.3	8.9	8.5	8.3	33.6	26.2
25 - 44	10.8	18.2	10.2	17.7	41.3	42.3
45 - 54	22.4	44.2	21 1	43.4	64.3	69.3
55 & over	32 1	56.9	31 1	56.4	73.5	75.8

Literacy is seen to be lower for the older generation. This is most probably a consequence of the improving education opportunities available to the younger generations. Thus the illiteracy rate averages 8.4 for the age group 12-19, 9.1 for the group 20-24, 14.5 for the group 25-44 and 33.3 for the group 45-54.

At the same time female literacy which averages lower than males for the over twenty fives, show the reverse tendency for the younger age group. Girls are taking advantage of increasing assess to education opportunities.

3.9 Educational Attainment

Educational attainment is usually measured by the highest grade which a person has completed. A percentage distribution of the population 5 years and over with no education in the Republic of Mauritius presented in table 3.10 shows that in 1983 nearly 14% of the population five years and above have no education and still 11% in 1990, were in that position. The younger generation 5-19 has similar rates for males and females. The rates are high at age 35 and above, with 15% for males and 37% for females. The latter can be explained by the fact that females now age 35+were not sent

to school in their younger years but instead retained at home to look after younger ones or to do household chores. or were married off The situation has however improved from what it was 7 years before, as seen from the data for 1983 census.

Table 3.10 Percentage distribution of population aged 5 and over with no education by age-group and sex - Republic of Mauritius (1983 and 1990 censuses).

Age group	1	983 Census	3	1	990 Census	3
	Both sexes	Male	Female	Both sexes	Male	Female
Total	13.5	8.3	18.6	10.9	6.5	15.4
5 - 19	1.9	1.9	2.0	1.2	1.2	1.2
20 - 34	6.8	6.8	9.7	3.6	2.7	4.5
35 & over	33.8	33.8	45.8	26.3	15.0	36.8

3.9.1 Level attained

The level of educational attainment is measured by the highest academic qualification that a person has obtained. Basically secondary schools allow children in school up to the age of 19, but many leave school earlier. From table 3.11 it is found that 24,338 children aged 10-14 years are not in school, the greater number of which having studied up to the primary level only. It seems that they drop out after Std VI. Among those aged 15 and over not attending school, 14.6% have no education while 48% have attained the primary level. The percentage having studied up to the Tertiary is only 1.5%

Table 3.11 - Population 5 years and over, not attending school, by educational attainment and age-group - Republic of Mauritius - 1990.

Age (years) Educational attainment	5 - 9	10 - 14	15 - 19	20 - 24	25 - 34	35 - 44	45 and over	Total
Nil & Preprimary	1,115	1,045	1,544	2,422	8,452	16,919	73,479	104,976
Primary	960	21,123	33,792	39,078	88,456	74,030	100,670	358,109
Lower Secondary	-	2,139	21,823	35,668	56,536	26,997	13,466	156,629
Passed SC & HSC	-	_	4,850	22,126	40,428	19,150	11,179	97,733
Tertiary	-	-	7	284	4,013	3,921	2,092	10,317
Not stated	7	31	83	135	331	336	940	1,863
Total	2,082	24,338	62,099	99,713	198,216	141,353	201,826	729,627

3.9.2 Technical and vocational Training

Besides academic education, emphasis is being laid on vocational education, thus more directly preparing people for the labour market. According to 1990 Census (Table 3.12) 38,064 persons (23,157 males and 14,907 females) had followed some sort of vocational training. This number does not include those who have not gone through a formal training but have a good hands on experience in their own fields. The choice of training is not the same for males and females: the major field of preference for males seems to be the Trade, Craft and Industrial techniques specifically, the larger number being in the Mechanical and Mechanical repair trades, electrical traders and construction. Part of these people are easily absorbed in the labour market while others become self-employed. On the other hand, more females are trained in Commerce and Business Administration, specifically in secretarial practice, clerical duties and typing. Other fields of studies for both sexes are: primary level teacher training and medical diagnosis and treatment. This is because the teachers in primary sector have to go through a compulsory training of two years when they join the services; similarly the field of medical diagnosis and treatment includes the nurses who, like the teachers, have to go through training when they are recruited.

Table 3.12 Population 12 years of age and over with vocational or technical training by major field of study, age and sex

Field of Study		М	ale			Fem	ale	
	Total	12 - 24	25 - 34	35+	Total	12 - 24	25 - 34	(
Total	23,157	4,621	7,975	10,561	14,907	4,003	5,942	4,9
Teacher training	3,898	96	722	3,080	3,108	204	952	1,9
Commerce and Business Administration	3,311	402	1,235	1,674	5,562	1,824	2,633	1,1
Mathematics and Computer Science	1,210	460	525	225	1,223	671	444	1
Medical diagnostic and treatment	1,521	64	520	937	1,411	78	525	8
Trade, Craft and Industrial Techniques	5,890	1,813	2,428	1,649	610	223	223	1
Engineering	1,241	228	497	516	24	٠ 7	10	
Home Economics and Domestic Science	75	23	29	23	914	257	387	2
Service Trades	1,298	555	539	204	445	38	328	
Other	4,713	980	1,480	2,253	1,610	701	440	4

Computer science seems to be a favorite field of study for both males and females. Some of the females may have also been accounted in Commerce and Business Administration as most of the typists have followed a course in Wordprocessing. Also Computer Science is a new subject and is popular and considered useful. Unlike females, more males are trained in engineering (electrical and electronics engineering and mechanical engineering technology). The field service trades has a substantial number of males, namely in hotel and restaurant trades, bartending and waiter. People are rather easily absorbed in hotels, etc due to the expanding tourist industry. Among the other fields where significant number of females are trained are Home Economics and Domestic Science. Here the majority of them are trained in dressmaking and sewing as free courses are offered by the Sugar Industry in dressmaking and sewing, embroidery, craft.

Only major fields of study with bigger numbers have been presented in the table. On the whole, the average duration of course studied by the males was 22 months and for females 21 months.

3.9.3 Post-secondary degree

The number of people with a post-secondary degree in the Republic of Mauritius was 10,748 at 1990 Census. The average duration of course for males was 4.5 years while for females it was 4.25 years.

Table 3.13 gives the number of qualified people in only those fields where there is a substantial number. It is clear that the field of preference for males is Business Administration and related fields, more specifically in Commerce, Accountancy, Record Keeping and Auditing. Fewer females pursue post secondary education, and they are mostly in the field of Humanities, that is languages and literature, with shorter training periods.

3.10 School Life Table

From the above analysis and from data on mortality, one can see that significant progress has been made in Mauritius both in education and in saving lives and extending life. Children have especially benefitted from increased opportunities for schooling and reduced mortality. This has resulted in increases in the expected length of life at young ages. The improvement in participation rates has increased the number of years in school. The effect of these improvements has been reflected in the increase in the length of time in schooling as seen in the school life table in Table 3.14 and in the general life table as in Table 3.15.

Whereas life expentancy was 64.4 for boys and 71.7 for girls, in 1983 it increased respectively to 65.6 years and 73.4 years in 1990. At the same time, whereas a boy had an average of 11.9 years of school life in 1983, this increased to 12.2 years in 1990 (an increase of 0.3 years) For a girl the increase was only 0.1 years from 11.9 to 12.0. Therefore even though significant progress was made by girls in education in the 7-year period 1983 to 1990, some of the handicaps of low participation in the past affecting the other cohorts have pulled down her achievements.

Table 3.13 - Population 15 years of age and over with a post secondary degree by major field of study, age and sex

Field of Study		MA	MALE			FEM	FEMALE	
	Total	15 - 29	30 - 44	45+	Total	15 - 29	30 - 44	45+
Total	8033	8†11	2085	1800	2715	713	1706	296
Education Science and teacher training	449	. 11	306	132	257	19	161	47
Humanitics	643	45	403	195	529	101	365	63
Social and bchavioural science	808	18	909	122	342	76	210	56
Business Administration and related fields	1189	184	799	206	268	116	140	12
Medical diagnostic and treatment	866	110	586	302	252	89	150	34
Engincering	928	216	548	164	35	61	12	4
Other	3018	501	1838	619	1032	314	638	80

Improvement in mortality had, as expected, only marginal effect on length of schooling, because in this age range already mortality is very low and any improvement can be only insignificant. Increased school life will have to come from higher participation and continuation in the school system for a longer period than now.

At age 5 (entry age into school) a boy had 10.7 years in school in 1983 as against 10.9 years in 1990. For girls it was 10.6 in both periods. It shows that still boys have an edge over girls by 0.3 years and unless female participation at the older ages increase, the gap may remain. The increase seems feasible because already the cohort of girls aged 6-14 are ahead of boys and they will move into higher ages, unless deterioration sets in after age 15 as noted now where teen age marriages and pregnancies have shown an upward trend in recent years and more and more young women are attracted to join the labour force because of the monetary attraction.

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Republic of Mauritius

Nepulation of the									
Age		Male			Female		Age		Male
(vrs)	School	hool Life	Increment	Schoo	School Life	Increment in	(yrs)	Expectati	Expectation in life
	1983	1990	school life	1983	1990	school life	· •	1983	1990
0	68.11	12.18	0.29	11.85	11.96	0.11			
_	12.24	12.46	0.22	12.13	12.17	0.04	o 	64.38	65.57
C 1	12.28	12.48	0.20	12.16	12.19	0.03		64.56	65.68
w	12.18	12.37	0.19	12 07	12.08	. 0.01			
-	11.57	11.75	0.18	11.46	11.46	0.00	2	64 74	65.80
v.	10 70	68.01	0.19	10.55	10.56	0.01		64 61	65.91
9	9.75	9.94	0 19	19.6	9 62	0.01) } }
7	8.77	8.95	0.18	8.63	8.63	0.00	4	62.09	66.03
×	7.79	76.7	0.18	7.65	7.65	00.0		65 27	66 14
6	6.81	66.9	0.18	19'9	6.67	0.00	ر —	7.00	
10	5.84	6.02	0 18	5.70	5.70	0.00	9	64.55	65.38
=	4.88	90 \$	0.18	4.74	4.74	00.00	7	63.87	64.67
12	3.98	4.16	0.18	3.82	3.82	0.00		70.00	2
13	3.23	3.41	0.18	3.06	3.06	00.0	∞	63.10	63.87
14	2.58	2.76	0.18	2.40	2.40	00.00		75 69	63.11
15	2.00	2.18	0.18	1.80	1.80	00.00		6.20	
16	1.45	1.63	0.18	1.26	1 26	0.00	10	61.65	62.35
17	0.97	1.15	0 18	0.79	0.79	00.00	-	89 09	61 37
81	09.0	0.78	0.18	0.45	0.45	0.00	T -	00.00	01:0
19	0.33	0.51	0.18	0.23	0.23	00.00	12	59.71	60.39
20	0.16	0.34	0.18	0.11	0.11	00.00	12	56 75	50.41
21	60'0	0.27	0.18	90.0	90.0	00.0		70.75	1
22	0.05	0.23	0.18	0.03	0.03	00.0	14	57.78	58.43
23	0.03	0.21	0.18	0.02	0.02	00.00		56.81	57.45
7.4	0.01	0 0 1	00.0	0.01	0.01	0.00	CI	70.01	C+: / C

Age		Male			Female	
(yrs)	Expectation in life	on in life	Increment in	Expectation in life	on in life	Increment in
· ·	1983	1990	expect. in life	1983	0661	expect. in life
0	64.38	65.57	1.19	71.69	73.39	1.70
_	64.56	65.68	1.12	71.82	73.45	1.63
7	64 74	65.80	1.06	71.95	73.51	1.56
m	64.91	65.91	1.00	72.09	73.58	1.49
4	62.09	66.03	0.94	72.22	73.64	1.42
5	65.27	66 14	0.87	72.35	73.70	1.35
9	64.55	65.38	0.83	71.64	72.94	1.30
7	63.82	64.62	08.0	70.92	72.18	1.26
∞	63.10	63.87	0.77	70.21	71.43	1.22
6	62.37	63.11	0.74	69.49	70.67	1.18
10	61.65	62.35	0.70	68.78	16'69	1.13
Ξ	89.09	61.37	69'0	67.81	68.93	1.12
12	59.71	60.39	89.0	66.84	67.95	1.11
13	58.75	59.41	99.0	65.87	96.99	1.09
41	57.78	58.43	0.65	64.90	86:59	1.08
15	56.81	57.45	0.64	63.93	65.00	1.07

CHAPTER 4: PROJECTIONS

4.1 Introduction

The Education system and development have been presented in the previous chapters. The 1990 census data on Education and its comparison with data currently obtained from schools through surveys have helped to evaluate and analyse these data. Having described the past and present situation, we now focus attention on what can be expected in the near future, on projected data relating to education.

4.2 Educational Projection: Methodology

Projections of the future enrolment constitute the starting point of quantitative educational planning. They provide the basis for estimating future needs of teachers, classrooms and planning for various educational programmes including the provision of school building, teaching facilities and training of teachers.

Projections are usually worked out at both national and regional levels for effective planning. However, detailed data are not available to allow for regional projections. Also due to the easy day to day mobility of school population from region to region, permitted by easy transport facilities, projections at regional level will not be that helpful. However, the situation in Rodrigues is different. Therefore projection is attempted for Rodrigues as well as for Island of Mauritius. The projections for Republic of Mauritius can be derived from these results. In practice, projections are developed both through the extrapolation of certain trends and by assuming possible changes in one or more of other relevant factors such as legal entry and withdrawal age. This compromise allows the planner to take into account expected changes in educational policy during the projections period. Projections are usually conditional and the factors conditioning the results are:

- (i) the available data on past trends, namely the annual statistics on enrolment by level of education, gender and age group.
- (ii) estimates of population by single year of age and gender.

Two main methods are available for the projection of school enrolment, namely the Participation Rate Method and the Grade Progression Method. The application of the Grade Progression Method requires more elaborate data, like enrolment by grade and efficiency of the system. The Participation Rate Method on the other hand uses only two sets of data namely the projected population by single year of age and the participation rates. Projections by both methods have been worked out. In general, projections on enrolment by level of education are much more complete and useful (frequently also more accurate/reliable) than those based on the Participation Rate Method by age.

The basic information on population is obtained from the projections worked out by the Demography Section of the Central Statistics Office The base for the projections is the estimated 1994 resident population by gender and age. The estimate has been obtained by adding the balance of births, deaths and migration to the 1990 census population adjusted for underenumeration of young children.

The main assumptions underlying the population projection for the medium variant are:

(i) Fertility (expressed in terms of total fertility)

	1990	1995	2000
Island of Mauritius	2.30	2.25	2.05
Island of Rodrigues	3.19	2.40	2.20

(ii) Mortality: sex and age-specific survival ratios improve from current levels in accordance with the Coale and Guang, New Regional Model life tables at high expectation of life. The implied life expectancies at birth for the corresponding years are as follows:

	1990	1995	2000
Island of Mauritius			
Male	66.25	67.85	69.29
Female	73.89	75.58	77.07
Island of Rodrigues			
Male	67.33	69.40	71.12
Female	73.65	75.68	77.23

(iii) Migration (average annual net migration)

	1995	2000
Island of Mauritius		
Male	-600	-300
Female	-1,100	-500
Island of Rodrigues		
Male	-200	-150
Female	-200	-150

4.2.1 Projection of school population

While forecasting the school population, trends in the changes are used to obtain estimates. Based on the trend of recent past and on expected development in education, the values of such rates for the end year of the projection period, that is, the year 2000 have been estimated. Then interpolating between actual rates and estimated 2000 ones, the rates for the intermediate years have been calculated taking the following factors, among other things, into consideration:

- (a) the enrolment rates for lower ages have already attained high levels and it is expected that further increases will be marginal.
- (b) no disparity exists between boys and girls, and hence the rates are assumed to be rather the same.

4.2.1.1 New Entrants to Primary School

The official admission age to primary school is 5 years, that is, a child should have attained age 5 years to be admitted in school in January. The population by single year in the young age 5 have been projected, based on the 1990 census data.

Table 4.1 Projection of 5 year old population by gender and estimated annual intake (1994-2000) - Republic of Mauritius

Year	Mal	е	Female	
	Proj. Population	Est.Intake	Proj. Population	Est. Intake
1994	10,398	10,282	10,200	10,072
1995	10,659	10,542	10,280	10,160
1996	11,153	11,033	10,675	10,555
1997	11,494	11,376	10,893	10,774
1998	11,085	10,974	11,001	10,884
1999	10,698	10,592	10,491	10,383
2000	10,594	10,488	10,625	10,519

The number of children to be enrolled in Standard I is forecasted by applying an estimated intake rate. The 1990 Census figures showed that 96% of the boys and 94% of girls of age 5 years were attending school. Since primary education was made compulsory in 1992, the Intake Rate is assumed to be 99% throughout the projection period. The other 1% who may not be in the schools are the disabled (estimated to be 0.5 at 1990 census) and other social cases. Table 4.1 gives both the projected population and the estimated entrants.

4.2.1.2 Primary and secondary level projection - Participation Rate Method

The school population is projected only for the Primary and Secondary level, that is for the age-group (5-19) years. The future enrolment is obtained by multiplying the projected population at each age (table 4.2) by the corresponding projected enrolment rate (table 4.3). The results are given in table 4.4.

4.2.1.3 Primary and secondary level projection-Grade Progression Method

While using this method of projection, the figures used are the actual enrolment by grade obtained from the Annual Census in schools for the Primary and Secondary Sector for 1993. The intake rate at the primary stage children aged 5 years has been taken as 99% throughout the period as mentioned earlier. The projections are calculated by multiplying the enrolment at each grade by the Promotion Rate in the corresponding grade. Since there is no significant failure in the primary school up to standard V, the progression rate from one grade to the next is assumed to be 99% taking account of 1% attrition due to drop out, migration and mortality. At standard VI the repetition rate is assumed to decrease to reach 29% from the 42% observed in 1993 in Island of Mauritius and to 31% from 51% in Rodrigues in 1993 taking

account of policy for more efficient use of resources. Table 4.5. presents the projected primary school population for the period 1994-2000 separately for island of Mauritius and island of Rodrigues.

For the secondary stage the promotion rate for standard VI of primary is assumed to improve from 54% in 1993 to 62% in 2000 in Island of Mauritius and from 40% in 1993 to 47% in 2000 in Rodrigues. The repetition rates and promotion rates (given in table 4.6) are assumed to improve.

Table 4.7 presents the projected secondary school population by sex and grade for island of Mauritius and island of Rodrigues separately for the period 1994 to 2000. These projections are based on current policy and do not take into account any drastic change in the education system. Any changes in population enrolled in schools will imply policy decisions concerning infrastructure, budget, teachers, among others.

Projections based on the grade progression method being ,more elaborate and therefore of greater value for planning and policy formulation, it is considered for further analysis especially to infer the implications regarding the requirements of teachers, class rooms etc.

Table 4.2(a): Population by single years (1994 - 2000) Island of Mauritius

	——————————————————————————————————————																	
	2000	10,315	10,170	10,660	10,500	10,285	9,865	9,700	9,110	8,530	8,415	8,580	8,875	9,230	10,055	10,565	71,495	73,360
	1999	10,180	10,670	10,510	10,300	9,875	9,710	9,120	8,540	8,430	8,590	8,880	9,235	10,060	10,570	11,345	70,365	75,650
	1998	10,683	10,518	10,301	688'6	9,716	9,132	8,546	8,443	8,596	8,884	9,243	10,070	10,587	11,356	10,824	68,785	78,003
Female	1997	10,534	10,317	9,904	9,731	9,165	8,577	8,473	8,627	8,916	9,302	10,134	10,654	11,431	10,892	10,566	66,701	80,522
	9661	10,332	9,920	9,746	6,197	8,608	8,503	8,658	8,948	9,363	10,197	10,722	11,502	10,962	10,644	9,972	64,964	82,310
	1995	9;636	092'6	9,230	8,638	8,534	8,689	8,981	9,421	10,261	10,790	11,575	11,030	10,722	10,045	9,645	63,768	83,489
	1994	9,775	9,263	8.669	8,564	8,720	9,013	9,480	10,325	10,858	11,648	11,099	10,799	10,118	9,715	9,944	63,484	84,506
	2000	10,274	10.340	10,750	11,131	10,725	10,230	9,905	9,472	8,956	8,923	9,076	9,221	9,217	10,982	11,068	73,355	76,915
	6661	10,350	10,760	11.141	10,737	10,240	9,915	9,482	8,966	8,934	880'6	9,233	9,529	10,392	11,079	11,761	72,625	78,982
	8661	10,760	11,133	10.725	10,228	9,935	9,480	8,964	8,930	9,087	9,312	9,533	10,400	11,085	11,773	11,033	71,225	81,153
Male	1997	11.147	10,738	10,242	9.947	9,497	8,981	8,948	9,103	9,329	9,570	10,440	11,128	11,817	11,075	10,946	69,500	83,408
	9661	10,752	10,255	096.6	9,515	866.8	8,965	9,120	9,346	9,606	10,479	11,171	11,861	11,117	10,996	10,423	67,565	84,999
	1995	10.269	9.973	9.532	9,014	8,982	9,137	9,363	9,643	10,519	11,213	11,905	11,159	11,045	10,470	6,709	66,270	85,663
	1994	986'6	9.550	9.031	8.999	9,154	9.380	089,6	10,558	11,256	11,949	11,201	11,094	10,516	9,752	10,258	65,780	86,584
Age	(yrs)	,0	9	7	~	6	10	11	12	13	14	15	16	17	- 81	19	5 - 11	12 - 19

Table 4.2(b): Population by single years (1994 - 2000)

Rodrigues

Age				Male	;						Female			
(yrs)	1994	1995	1996	1661	8661	1999	2000	1994	5661	1996	1997	1998	1999	2000
5	412	390	401	347	325	348	320	425	344	343	359	318	311	310
9	389	409	388	399	346	325	340	382	423	342	342	358	352	308
7	382	386	406	385	396	346	323	393	377	421	341	341	315	350
∞	364	378	380	404	383	395	342	362	388	373	419	339	355	314
6	418	360	374	376	401	380	. 392	416	358	383	368	417	338	350
10	474	413	357	369	372	400	380	485	411	353	378	363	337	335
=	498	468	408	354	365	370	. 398	468	479	405	348	373	415	336
12	510	486	463	403	350	363	368	558	458	472	400	344	361	414
13	552	499	475	458	398	347	360	572	545	449	467	394	370	356
14	513	540	486	463	452	395	345	546	560	534	439	461	341	368
15	508	501	527	475	452	450	392	440	534	548	521	429	391	339
91	458	496	490	515	463	452	447	467	431	523	535	509	458	388
17	499	445	485	478	503	460	450	483	455	422	512	524	426	456
18	435	486	433	473	466	501	460	437	471	443	413	200	505	424
61	422	424	472	420	461	464	498	436	427	459	432	403	421	502
5 - 11	2,937	2,804	2,714	2,634	2,588	2,564	2,495	2,931	2,780	2,620	2,555	2,509	2,423	2,303
12 - 19	3,897	3,877	3,831	3,685	3,545	3,432	3,320	3,939	3,881	3,850	3,719	3,564	3,273	3,247

Table 4.3(a): Projected Participation Rates by single year (1994 - 2000)

I able 4.5(a): Frojected Tailtripation I

	2000	0.66	0.66	0.66	0.66	0.66	0.66	0.96	0.06	77.0	70.0	61.5	54.5	43.0	27.0	18.0
	6661	0.66	0.66	0.66	0.66	0.66	0.66	0.96	0.06	76.5	69.5	61.0	54.0	42.5	26.5	17.5
	8661	0.66	0.66	0.66	0.66	0.66	0.66	0.96	80.8	76.0	0.89	60.5	53.5	42.0	26.0	17.0
Female	1661	0.66	0.66	0.66	0.66	0.66	0.66	95.5	9.08	75.5	67.5	0.09	53.0	41.5	25.5	16.5
	9661	0.66	0.66	0.66	0.66	0.66	0.66	95.0	80.4	75.0	0.99	59.5	52.5	41.0	25.0	16.0
	1995	0.66	0.66	0.66	0.66	0.66	0.66	94.5	80.2	74.0	0.59	59.0	51.5	40.5	24.5	15.5
	1994	0.66	0.66	0.66	0.66	0.66	0.66	94.0	80.0	72.0	64.0	58.2	50.5	40.0	24.0	15.0
	2000	0.66	0.66	0.66	0.66	0.66	0.66	0.96	9.08	76.0	0.89	62.0	54.0	45.0	33.0	21.0
	6661	0.66	0.66	0.66	0.66	0.66	0.66	0.96	80.5	75.0	67.0	61.5	53.5	44.5	32.5	20.5
, ,	8661	0.66	0.66	0.66	0.66	0.66	0.66	0.96	80.4	74.0	0.99	61.0	53.0	44.0	32.0	20.0
Male	1997	0.66	0.66	0.66	0.66	0.66	0.66	95.5	80.3	73.0	65.0	60.5	52.5	43.5	31.5	19.5
	9661	0.66	0.66	0.66	0.66	0.66	0.66	95.0	80.2	72.0	64.0	0.09	52.0	43.0	31.0	19.0
	1995	0.66	0.66	0.66	0.66	0.66	0.66	94.5	80.1	71.0	63.0	59.5	51.5	42.5	30.5	18.5
	1994	0.66	0.66	0.66	0.66	0.66	0.66	94.0	80.0	70.2	62.0	59.0	51.0	42.0	30.0	18.0
	Age (v.rs)	16.	9	7	~	6	10	11	12	13	14	15	16	17	18	19

Table 4.3(b): Projected Participation Rates by single year (1994 - 2000)

Rodrigues

Age	ļ			Male							Female			
i	1994	1995	1996	1997	1998	1999	2000	1994	1995	9661	1661	1998	1999	2000
'n	0.96	96.5	97.0	0.86	0.66	0.66	0.66	93.0	94.0	95.0	0.96	97.0	0.86	0.66
9	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	99.0	0.66	0.66	0.66
7	0.66	0'66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
∞	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
6	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
01	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
=	97.0	0.86	0.66	0.66	0.66	0.66	0.66	0.06	91.0	92.0	93.0	94.0	95.0	0.96
12	50.0	51.0	52.0	53.0	54.0	55.0	56.0	58.0	59.0	0.09	61.0	62.0	63.0	64.0
13	31.0	32.0	33.0	34.0	35.0	36.0	37.0	35.0	36.0	37.0	38.0	39.0	40.0	42.0
4	32.0	33.0	34.0	35.0	36.0	37.0	38.0	35.0	36.0	37.0	38.0	39.0	40.0	42.0
51	26.5	27.0	27.5	28.0	28.5	29.0	30.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
16	28.0	29.0	30.0	31.0	32.0	33.0	34.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0
17	22.0	23.0	24.0	25.0	26.0	27.0	28.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
<u> </u>	16.0	17.0	18.0	19.0	20.0	21.0	19.6	10.0	11.0	12.0	13.0	14.0	15.0	16.0
19	8.0	8.5	0.6	9.5	10.0	10.5	11.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0

Table 4.4(a): Projected school population by age and gender (1994 - 2000) (Participation Rate Method)

Island of Mauritius

				Male							Female			
Age (vrs)	1994	1995	9661	1997	8661	6661	2000	1994	1995	9661	1997	8661	6661	2000
'/	988 0	10 166	10 644	11.036	10,652	10.247	10,171	9,677	9,837	10,229	10,429	10,576	10,078	10,212
2	9,000	9.873	10.152	10.631	11,022	10,652	10,237	9,170	9,662	9,821	10,214	10,413	10,563	10,068
2	8,941	9,437	9,860	10,140	10,618	11,030	10,643	8,582	9,138	9,649	9,805	10,198	10,405	10,553
· ∞	606.8	8,924	9,420	9,848	10,126	10,630	11,020	8,478	8,552	9,105	9,634	9,790	10,197	10,395
6	9.062	8,892	8,908	9,402	9,836	10,138	10,618	8,633	8,449	8,522	9,073	619,6	9,776	10,182
01	9 286	9,046	8,875	8,891	9,385	9,816	10,128	8,923	8,602	8,418	8,491	9,041	9,613	9,766
2 =	660.6	8,848	8,664	8,545	8,605	9,103	9,509	8,911	8,487	8,225	8,092	8,204	8,755	9,312
12	8.446	7,724	7,495	7,310	7,180	7,218	7,634	8,260	7,556	7,194	6,953	6,822	7,686	8,199
13	7.902	7,468	6,916	6,810	6,724	6,701	6,807	7,818	7,593	7,022	6,732	6,533	6,449	6,568
2 7	7 408	7.064	6,707	6,221	6,146	680'9	6,068	7,455	7,014	6,730	6,279	6,041	5,970	5,891
: '	609'9	7,083	6,703	6,316	5,815	5,678	5,627	6,460	6,829	6,380	6,080	5,592	5,417	5,277
91	5,658	5,747	6,168	5,842	5,512	860*5	4,979	5,453	5,680	6;039	5,647	5,387	4,987	4,837
17	4,417	4,694	4,780	5,140	4,877	4,624	4,148	4,047	4,342	4,494	4,744	4,447	4,276	3,969
81	2,926	3,193	3,408	3,489	3,767	3,601	3,624	2,332	2,461	2,661	2,777	2,953	2,801	2,715
19	1.846	1,796	1,980	2,134	2,207	2,411	2,324	1,492	1,495	1,596	1,743	1,840	1,985	1,902
5 - 11	64,638	65,186	66,523	68,493	70,244	71,616	72,326	62,374	62,727	63,969	65,738	67,841	69,387	70,488
12 - 19		44,769		43,262	42,228	41,420	41,211	43,317	42,970	42,116	40,955	39,615	39,571	39,358
	4													

Table 4.4(b): Projected school population by age and gender (1994 - 2000) (Participation Rate Method)

Rodrigues

Age				Male							Female			
(vrs)	1994	1995	9661	1661	1998	6661	2000	1994	5661	1996	1997	8661	6661	2000
Š	396	376	389	340	322	345	317	395	323	326	345	308	305	307
9	385	405	384	395	343	322	337	378	419	339	339	354	348	305
7	378	382	402	381	392	343	320	389	373	417	338	338	312	347
&	360	374	376	400	379	391	339	358	384	369	415	336	351	311
6	414	356	370	372	397	376	388	412	354	379	364	413	335	347
10	469	409	353	365	368	396	376	480	407	349	374	359	334	332
=	483	459	404	350	361	366	39.4	421	436	373	324	351	394	323
12	255	248	241	214	681	200	206	324	270	283	244	213	227	265
13	171	160	157	156	139	125	133	200	961	991	177	154	148	150
14	164	178	165	162	163	146	131	191	202	198	167	180	136	155
15	135	135	145	133	129	131	118	128	160	170	167	142	133	119
91	128	144	147	160	148	149	152	121	116	146	155	153	142	124
11	110	102	116	120	131	124	126	76	96	93	118	126	107	119
81	70	83	78	06	93	105	06	44	52	53	54	70	92	89
19	34	36	42	40	46	49	55	7	6	11	13	14	17	20
5 - 11	2,885	2,761	2,678	2,603	2,562	2,539	2,471	2,833	2,696	2,552	2,499	2,459	2,379	2,272
12 - 19	1,067	1,086	1,091	1,075	1,038	1,029	1,011	1,112	1,101	1,120	1,095	1,052	986	1,020

Table 4.5(a): Projected Primary school population by grade and gender (1994 - 2000)

Grade Progression Method

Island of Mauritius

						*			
		Total	57,797	57,385	58,351	59,543	61,160	61,909	62,340
		VI	12,847	11,910	11,561	11,028	11,393	11,766	11,840
	,	Λ	8,952	8,545	8,320	8,928	9,296	9,449	9,826
Female	ard	ΛI	8,631	8,404	9,018	9,390	9,545	9,925	10,119
	Standard	III	8,489	9,109	9,484	9,641	10,025	10,221	10,366
			9,201	9,580	9,739	10,127	10,325	10,470	9,977
			9,677	9,837	10,229	10,429	10,576	10,078	10,212
	Total		59,551	59,274	60,225	61,743	63,088	63,915	64,177
		VI	13.517	12,714	12,162	11,733	11,718	12,214	12,488
		>	9.272	8,762	8,697	8.880	96†'6	9,765	10,225
Male	ard	VI	8,851	8,785	8,969	9,592	6.864	10,328	10,708
	Standard	E	8.873	090`6	689.6	9.964	10,432	10,816	10,440
			9.152	9.787	10.064	10.538	10,926	10,545	10,145
			9,886	10,166	10,644	11,036	10,652	10,247	10,171
	Year	I	1994	1995	9661	1997	8661	6661	2000

Table 4.5(b): Projected Primary school population by grade and gender (1994 - 2000)

Grade Progression Method

Rodrigues

	Total		2,569	2,420	2,270	2,183	2,098	2,011	1,920
		VI	613	909	526	472	471	468	392
		>	434	368	349	365	364	298	301
Female	ard	>1	375	356	373	372	304	307	325
	Standard		364	380	379	310	313	331	296
		П	388	387	317	319	338	302	299
		I	395	323	326	345	308	305	307
	Total	1	2.656	2.530	2,491	2.395	2.298	2,242	2,161
		VI	159	604	578	552	513	507	482
		^	439	387	395	365	380	361	374
Male	lard	Λl	391	399	369	384	365	377	330
	Standard	III	+03	372	388	369	381	333	316
		11	376	392	372	385	337	319	342
		Ы	396	376	389	340	322	345	317
	Year		1994	1995	9661	1997	8661	1999	2000

Table 4.6(a): Projected Participation Rates by grade and gender (1994 - 2000)

Island of Mauritius

Year I II III III III III IIII IIII IIII IIII IIII IIII IIII IIII IIIII IIIII IIIII IIIIII IIIIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII										
I II 0.91 0.90 0.91 0.91 0.91 0.91 0.92 0.92	Promotion						Repetition			
0.91 0.90 0.91 0.91 0.91 0.91 0.92 0.92	VI III	>	VI(L)	_	11	1111	IV	>	VI(L)	VI(U)
0.91 0.91 0.91 0.91 0.92 0.92	89.0 98.0	0.33	98'0	0.05	90 0	80 0	0.23	0.29	0 10	0.30
0.91 0.91 0.92	69.0 2.00	0.34	0.87	0.05	0.05	0.07	0.22	0.28	01.0	0.29
0.92 0.92	0.70	0.35	88.0	0.05	0.05	0.07	0 22	0.28	60'0	0.29
	0.88 0.71	0.37	68 0	0.05	0.04	0.07	0.22	0.27	60'0	0.28
1998 0.92 0.92 0.8	0.88 0.72	0.39	06.0	0.05	0.04	0.07	0.21	0.27	80.0	0.27
0.92 0.92	0.88 0.73	0.40	06'0	0.05	0.04	0.07	0.21	0.26	80 0	0.26
2000 0.92 0.92 0.8	0.88 0.73	0.40	06.00	0.05	0.04	0.07	0.21	0.26	0.08	0.26

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Fe

Voor			Promotion	otion						Repetition			
Cal	-	11	III	VI	>	VI(L)	1	II	III	VI	Λ	VI(L)	VI(U)
1661	0.93	0.91	0.88	0.70	0.34	0.90	0.04	0.05	0.07	0.19	0.28	0.07	0.24
1995	0.93	0.92	68.0	0.71	0.35	0.91	0.04	0.04	90.0	0.18	0.27	0.07	0.23
1996	0.93	0.93	68.0	0.72	0.36	0.91	0.04	0.04	90:0	0.18	0.27	90.0	0.23
1997	0.94	16.0	06.0	0.73	0.38	0.91	0.03	0.04	0.05	0.18	0.26	90:0	0.22
8661	0.94	0.95	06.0	0.74	0.39	0.92	0.03	0.03	0.05	0.17	0.26	90.0	0.22
1999	0.94	0.95	0.91	0.75	0+0	0.92	0.03	0.03	0.05	0.17	0.25	90.0	0.21
2000	0.94	0.95	0.91	0.75	0.40	0.92	0.03	0.03	0.05	0.17	0.25	90:0	0.21

VI(L) - Form six lower

VI(U) - Form six upper

Table 4.6(b): Projected Participation Rates by grade and gender (1994 - 2000) Rodrigues

Male													
Year			Promotion	otion						Repetition			
	I	II	III	ΛI	Λ	VI(L)	-	II	III	ΙΛ	>	VI(L)	VI(U)
1661	08.0	82.0	0.72	0.74	0.14	0.73	0.14	0.20	0.19	91.0	0.45	0.12	0.2
1995	0.81	0.79	0.73	0.74	0.15	0.74	0.14	0.20	0.19	91.0	0.44	0.12	0.2
1996	0.82	08'0	0.74	0.75	0.15	0.74	0.13	0.19	0.18	0.15	0.44	0.11	0.2
1997	0.83	0.81	0.75	0.75	0.15	0 75	0.13	0.19	0.18	0.15	0.43	0.11	0.2
8661	0.84	0.82	0.76	0.75	0.16	0.75	0.12	0.19	0.18	0.15	0.43	01.0	0.2
6661	18.0	0.82	0.77	0.76	91.0	0.76	0 12	0.18	0.17	0.14	0.42	01.0	0.2
2000	0.84	0.82	0.77	0.76	0.16	0.76	0.12	0.18	0.17	0.14	0.42	01.0	0.2

Female

Year			Promotion	otion						Repetition			
	I	11	III	N	>	VI(L)	_	II	Ш	11	>	VI(L)	VI(U)
1994	† 8'0	92.0	0.78	0.58	0.12	78.0	0.12	0.21	0.15	0.31	tt 0	0.04	0.26
1995	0.85	0.76	0.78	0.59	0.13	88 0	0.12	0.21	0.15	030	0.43	0.04	0.25
1996	98.0	0.77	0.79	09:0	0.13	88 0	0.11	0.21	0.15	0.30	0 43	0.04	0.25
1997	98.0	0.77	08.0	19:0	0.14	68 0	0.11	0.20	0.14	0.29	0.42	0.03	0.24
8661	0.87	0.78	0.81	0.62	† 1 0	68 0	Е	0.20	0.14	0.29	0.42	0.03	0.24
1999	0.87	08.0	0.81	0.63	0.15	06.0	0 11	0.20	0.14	0.28	0.41	0.03	0.23
2000	0.87	08.0	0.81	0.63	0.15	06 0	0.11	0.20	0.14	0 28	0.41	0.03	0.23

VI(L) - Form six lower

VI(U) - Form six upper

Table 4.7(a): Projected Secondary school population by grade and gender (1994 - 2000)

Grade Progression Method

Island of Mauritius

		2			6	∞	63	8
	Total	44,755	45,533	45,578	45,469	44,998	44,833	44,878
	VI(U)	2.722	2,906	3,026	3,217	3,413	3,890	4,123
	VI(L)	2,502	2,591	2,771	2,973	3,412	3,594	3,600
ale	^	7.106	7,398	762,7	8,510	8,689	8,462	7,961
Female	IV	7,726	8,168	8,896	8,872	8,382	7,795	7,769
	III	7,614	8,343	8,170	7,539	7,077	7,081	6,757
	II	8,583	8,336	7,579	7,128	7,081	6,740	7,037
		8.502	7,791	7,339	7,230	6,944	7,271	7,631
	Total	12.912	43,721	13.897	43,840	13,684	43,564	43,696
	VI(U)	2.735	2,926	3,006	3,242	3,497	3,854	4,113
	VI(L)	2.449	2,480	2,694	2,909	3,234	3,456	3,514
ıle	>	6,772	7,194	7,618	8,032	8,199	8,093	7,788
Male	71	7.691	8,121	8,427	8,494	8,165	7,787	7,538
	III	7.386	7,633	7,632	7,155	906.9	6,708	6,578
	II	7.824	7,800	7,276	956'9	6,766	0,640	6,729
	_	8.055	7,567	7,244	7,052	6,923	7,026	7,436
Vear		1994	1995	9661	1997	1998	1999	2000

VI(L) - Form six lower

VI(U) - Form six upper

Table 4.7(b): Projected Secondary school population by grade and gender (1994 - 2000)

Grade Progression Method

Rodrigues

1								
	Total	1,320	1,424	1,506	1,545	1,543	1,535	1,522
	VI(U)	6	15	24	33	37	4	50
	VI(L)	15	23	31	33	39	45	52
Female	>	183	231	245	273	312	336	346
Fer	<u> </u>	259	247	280	323	331	331	310
	I	213	264	303	296	291	268	252
	=======================================	305	346	326	323	292	268	265
		336	298	297	264	241	243	247
	Total	1,156	1.270	1,363	1,434	1,481	1,505	1,507
	VI(U)	15	18	24	29	33	38	9†
	VI(L)	20	28	32	36	I+	51	56
Male	>	181	192	215	249	290	320	334
M	ΛI	150	177	206	244	260	262	260
	III	212	244	288	298	294	290	283
	II	261	306	308	297	289	285	269
	-	317	305	290	281	274	259	259
Year		1994	5661	9661	1997	1998	1999	2000

VI(L) - Form six lower

VI(U) - Form six upper

CHAPTER 5: IMPLICATIONS OF THE PROJECTIONS

5.1 Introduction

The Grade Progression Method gave better results (in comparison with the actual figures in 1994) than the Participation Rate Method, and thus observations will be made on results obtained from the former one.

As per projections the future enrolment of the male in primary school shows a slight decline from 62,206 in 1994 to 61,804 in 1995. Afterwards it increases to reach 66,336 by year 2000, thus representing an annual increase of 1.2%. The female school population also is expected to follow a similar pattern, that is the number decreases in 1995, to take off in 1996 at an annual increase rate of 1.1% till the year 2000. The fluctuations are mainly due to the changing number of births.

The secondary school age population, comprises children aged (12-19) years. The projected figures for both boys and girls show a fluctuating trend. The enrolment reaches the highest number 92,341 in 1996 and then declines. This may be caused by (i) the changing number of births and (ii) the assumptions regarding the efficiency rates. The more the system improves, students pass and are promoted, less number are retained, thus influencing the total enrolment.

5.2 Teachers requirement

The future school population will have an effect on the number of teachers required. However, the need for teachers does not depend only on trend in future enrolment, but depends also on other factors like government policy concerning pupil/teacher ratio, changes in the educational system, regional changes in demand and supply, among others.

5.2.1 Primary Level

In this sector, there are two categories of teachers: -

- (i) the General Purpose Teachers who teach the core subjects namely English, Environmental Studies, French and Mathematics.
- (ii) the Asian Language teachers who teach only Asian Languages: Arabic, Hindi, Marathi, Modern Chinese, Tamil, Telugu and Urdu.

For this exercise, it is not possible to estimate the future needs of Asian language teachers because such projections would require a series of population projections by religion/mother tongue and such projections are not available and are also difficult to prepare.

The number of general purpose teachers required to cope with the new enrolment has been calculated under the assumption of the pupil/teacher ratio of 33 observed in 1993 to remain constant. Each year a number of teachers leave the profession permanently or temporarily through death, retirement, resignation, movement to other occupations, temporary secondment, study leave, in-service courses, transfer to administrative work or to other levels of education, and other causes. An attrition rate of 1.5% is assumed to take care of the annual loss. Based on the above assumptions, calculations

show that the number of additional teachers required by year 2000 will be 584 or an annual average of 97. (Refer table 5.1)

Table 5.1 Projection of teachers (primary and secondary schools) and additional teacher required for the period (1994-2000)

		Prim	nary		Secondary	
Year	School population	teacher required *	Additional teacher	School Population	teacher required **	Additional teacher
1994	122,572	3,714		90,143	4,292	
1995	121,610	3,685	27	91,945	4,378	150
1996	123,340	3,737	107	92,341	4,397	84
1997	125,863	3,814	133	92,289	4,394	62
1998	128,645	3,891	134	91,708	4,367	38
1999	130,080	3,941	108	91,436	4,354	52
2000	130,595	3,957	75	91,604	4,362	73

^{*} Based on a pupil teacher ratio of 33

5.2.2 Secondary Level

The projection of teachers for the secondary sector is a more complex exercise because the number of teachers will depend on the subjects taught in schools. Such assumptions are not easy and therefore the forecast will be based on pupil/teacher ratio. The pupil/teacher ratio has remained constant for the past three years. Hence for further calculations, it is assumed that the number of pupils per teacher will be 21 till year 2000.

The effect of teachers retiring from the system has also been shown in table above. Here also as in primary sector, an attrition rate of 1.5% is applied throughout. It is found that for the next forecasted period 1994-2000, an additional 76 teachers will be needed on an average yearly.

5.3. Classrooms

From available data, it is found that there were 4601 classrooms being used in the primary sector in 1993. This gives 27 pupils per classroom. If this classroom size is maintained in future, then some 97 classrooms will be released in 1995 due to a reduction in enrolment, and 235 additional classrooms will be required in the year 2000.

In the secondary sector, in 1993 there were 2,515 classrooms giving thus a pupil/classroom size of 35. Keeping this classroom size constant for the coming years, some additional 102 classrooms will be needed by 2000.

5.4 Other Implications

Besides the implications of teachers and classrooms, the change in enrolment will also affect the cost of education, the facilities, equipment, distribution of administrative staff, and provision of infrastructure (laboratories workshops, etc). In the absence of detailed information, the study is restricted to teachers and classrooms only.

^{**} Based on a pupil teacher ratio of 21