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Gender and Education for All: The Leap to Equality

Gender sensitive educational policy and practice: the case of Jamaica

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*Gender-Sensitive Educational Policy and Practice;
The Case of Jamaica*

ABSTRACT

Formal public education in Jamaica is offered to the 4 to 18+ age cohort through early childhood or pre-primary, primary, secondary and tertiary level institutions. At the early childhood level enrolment favours males. Primary education is offered in 3 types of schools and, overall, enrolment at this level also favours males (51.1%). Secondary education is offered in 5 types of schools and, at this level, overall there is a slight gender gap favouring females. Compared with the secondary level, enrolment for both sexes declines dramatically at the tertiary level but, overwhelmingly, favours females (67.3%).

At the highest level of the education system where policy and decisions that govern the system are determined, there is an approximate 1.5:1 female to male ratio and females are, therefore, well represented in decision-making structures of the system. In the general teaching force there is approximately a 3.3:1 female/male ratio. In spite of the fact that proportionately, females are more highly qualified than males, as a percentage of their group, males are more highly represented in principal positions than are females.

The Mission Statement of the MOEY&C speaks to the need to 'provide quality education for all persons' and one of the strategic objectives makes reference to 'securing teaching and learning opportunities that will optimize access, equity and relevance throughout the education system'. In relation to gender, an explicit concern is expressed in relation to apparent male disadvantage in the system. Data, related to both quantitative and qualitative dimensions of the educational experience at all levels, however, point to clear gender differentials that affect both sexes and which need to be addressed through precise, evidence-based policy positions.

Over the decade of the 90s major curriculum reforms were undertaken at the primary and lower secondary levels aimed at rationalizing offerings and improving quality.

Two innovations in the secondary curriculum are noteworthy: the infusion of **Career Education** elements into five core and eight personal development subject areas and the introduction of an integrated **Resource and Technology** subject. In the former case, the goal is to help students make meaningful and satisfying career choices. Given the fairly fixed occupational sex-segregation of the Jamaican labour market which reflects the typical gender division of labour with women clustered in low-paying, low-status service related occupations, it is encouraging that the curriculum guide makes explicit reference to the fact that educators not only have a responsibility to guide the process of career development but also to 'expose all students to, and encourage them to explore non-traditional careers regardless of sex, race or ethnic background'. Implied in the introduction of the **Resource and Technology** curriculum is the need to expose males and females to the full range of options with a view to facilitating more open choices for career development and dismantling traditional gender stereotypes associated with technical-vocational studies.

The MOEY&C has drafted an **Information and Communication Technology (ICT)** policy framework for governing ICT activities in the education system. However, no cognizance is taken of the extensive evidence, which points to universal issues of inequality and the well documented 'gender divide' in terms of access to these technologies as well as opportunities for pursuing studies in this field at various levels of the education system.

At the lower secondary level **Life Skills** are promoted through a number of personal development subject and through themes in the Social Studies curriculum. The increasing incidence of sexually transmitted diseases and **HIV/AIDS** in the school has prompted the introduction of STDs/HIV/AIDS prevention education to students in Grades 1 to 11 and issues such as reproductive health, responsible sexual behaviour, personal development, values and responsibility in relationships are addressed. **Education for citizenship** is important to prepare persons to participate in civic and political processes at all levels. The main subject through which this is achieved is Social Studies taught at both the primary and secondary levels.

Efforts to prepare and equip individuals with the skills, attitudes and tools to engage in informed decision-making and responsible social action need to take into account the overriding influence of the hidden curriculum which seems to successfully transmit gender stereotypes. One aspect of the hidden curriculum through which gender stereotypes are transmitted is **print and non-print materials** used to support the delivery of curricula at all levels. Many of the sexual inequalities that typify the educational process result from the assumption that men and women are expected to perform different functions in life. Uncritical acceptance of this ideology is achieved through a process of socialisation by a number of agencies, the school being of paramount importance in this respect. In this regard, the images portrayed in curriculum materials are powerful and effective socialisation tools.

Spotlight on Research

Gender Stereotypes in Textbooks

Some researchers have focused on ways in which curriculum materials portray images that convey implicit messages that contribute to the acquisition of differentiated gender identities and the internalization and acceptance of corresponding sex-linked behaviours and roles. Included in this group are:

- King, R. and Morrissey, M. (1988) analysed twenty secondary level textbooks in History, Geography and Social Studies and found that women were invisible in most of the texts and where they appeared they played subordinate or menial roles.
- Ayodike, T. (1989) and Pollard, V. (1989) analysed Literature texts. Ayodike found that damaging concepts of women were projected and there were few images that challenged accepted stereotypes of women. On the other hand, Pollard found that books written by a particular author sought to convey the strength, wisdom and courage associated with Caribbean women.
- Bailey, B. and Parkes, L. (1995) showed that not only were girls/women under represented in Language Arts texts used at the primary level but both sexes were characterized as displaying traditional gender-appropriate behaviours.
- Whiteley, P. (1996) reviewed Science texts and found that there was a gender balance in illustrations of young people but an imbalance in the illustration of adults in favour of males.
- Drayton, K. (1997) examined Caribbean English texts and posited that these books conveyed both eurocentric and patriarchal bias

Differences in performance, which favour females, are evident from the primary level and persist at the secondary and tertiary levels. At the secondary level, achievement gaps favour females in 13 of 17 academic subjects. In the technical-vocational subjects there is a clear gender divide with achievement gaps favouring boys in only two of the eight female dominated subjects and females in only three of the seven male dominated subjects.

Of importance also is the impact of factors such as type of school on performance outcomes. In co-educational settings, boys obtain the higher pass rate in nine of sixteen academic subjects including six of seven science subjects. However, when performance in single sex boys' schools is compared with that of single sex girls' schools, the pattern changes in favour of girls. In the all-female schools the pattern was reversed with girls having the higher pass rate in nine of the sixteen academic subjects including the six science subjects for which there were entries from all-boys schools.

Studies also establish an interaction between sex and socio-economic status in determining educational outputs. Performance of students in different types of schools provides some indication of the relationship. Both sexes in original 'traditional grammar' schools, which serve students from the higher socio-economic groups, have an advantage over students from the other four school types both in terms of participation and performance. In the 'working class' schools, there were much lower rates of participation and performance for both sexes. However, of note, is the fact that boys in these schools obtain better results in the technical-vocational subjects and would therefore, on leaving school, be better equipped to move into more lucrative forms of work in both the formal and informal sectors of the labour market.

At the tertiary level, results for Jamaican undergraduate students at the Mona Campus of the University of the West Indies for 2001 indicate that although numerically there were fewer males than females in all faculties, in terms of performance the rate of pass for males in the First Class Honours category was consistently better than that of females in all but one faculty.

This focus on the quantitative gains that Jamaican women have made in education, masks the fact that when the situation is examined from a qualitative perspective, because of where they are positioned in the school's curriculum, beyond school females actually have less of a competitive advantage than their male counterparts, beyond school. Data suggest that in spite of 'male disadvantage or underachievement' in the educational arena, males nonetheless have a competitive advantage in terms of wider social outcomes.

In spite of the fact that the employed female labour force represents the better source of human capital, women are predominately positioned in sales and service related occupations and, on average, earn less than their male counterparts. This pattern of occupational segregation is partly determined by the sex-segregation of the technical-vocational curriculum and results in females being clustered in the lowest paying sectors of the market and ultimately in women, on average, having lower incomes than men.

Additionally, data on participation and presence in decision-making structures indicate that in spite of their overall higher level of achievement at the higher levels of the education system, structural barriers prevent females from enjoying their rights in this regard. In fact, the inverse relationship between women's level of educational attainment and their participation in decision-making in Jamaica and other Caribbean countries, is commented on in a UNESCO Report on Education in the Caribbean coming out of a 1996 meeting of Ministers of Education of Latin America and the Caribbean it is noted that despite the advances made by women in education, when compared to men, they still have less access to opportunities and rewards and to the corridors and board rooms of political and economic power. Any analysis of the problem, as it relates to males in the system, must take cognizance of the inverse relationship between educational outputs and social outcomes if the problem is to be properly diagnosed and addressed through programme and policy formulation.

It is now acknowledged that schools and teachers play a pivotal role in reproducing and reinforcing gender inequalities. A recent survey of teacher educators, however, showed that there was a general lack of awareness with respect to the concept of gender and ways in which gender operates in the educational process and that these concerns were not being addressed in teacher training institutions.

The Secretariat of the Caribbean Community (CARICOM) in association with the Centre for Gender and Development Studies has therefore developed a module for teacher education, *Gender Issues in Caribbean Education*. It is envisioned that the use of the module for teacher preparation would:

1. build awareness of gender and its impact on the education process and outcomes; and,
2. provide teachers with the knowledge and skills required to adopt and promote a gender-sensitive approach to instruction and all school related activities.

The intention is to introduce the module in all teacher-training institutions and make it a mandatory course for the pre-service preparation of teachers for all levels of the education system. The ultimate goal: to improve the effectiveness of educational institutions, transform power relations in these institutions and increase returns on investments in education for both females and males.

1. Overview of the Education System

The formal public education system in Jamaica, established by the Education Act of 1965, is comprised of four levels that offer education to the 4 to 18+ age cohort; viz. the early childhood or pre-primary (4-5 years old) and primary (6-11 years old) levels, the secondary level offered in two cycles (12-14 and 15-16 years old), and, the tertiary level for persons who have successfully completed secondary education. At the end of the upper secondary cycle, some institutions offer a further two years at grades 12 and 13 for students who wish to pursue advanced studies at the secondary level, considered by some to be part of the tertiary system which includes community colleges, teacher training institutions, three universities and other institutions for specialized training. At the first three levels, there are also special education schools, catering to students with a range of cognitive, physical and emotional needs who need specialised support services.

Data for 2000/2001 indicate that at the primary and lower secondary levels of the system there is a gender gap in net and gross enrolment rates that favour males while at the upper secondary levels (15-16 and 17-19) and the tertiary level (17-19) the reverse is the case with the gap favouring females (See Table 1). It is estimated that, in that same year, approximately 91.0% of the 3-5 year old population was enrolled at the early childhood level enrollment rates but data were not sex-disaggregated for this level.¹ Factors accounting for disparities in enrolment at the various levels will be discussed in the section on participation and performance.

Table 1: Male/Female Net and Gross Enrolment Rates for Public Schools at All Levels, 2000-2001

Age	Net Enrolment Rates			Gross Enrolment Rates		
	Male	Female	Total	Male	Female	Total
6-11	94.9	90.7	92.8	101.8	96.4	99.1
12-14	77.9	76.3	77.1	96.9	93.7	95.3
15-16	47.4	51.0	49.2	75.5	77.9	76.7
17-18	2.0	3.1	2.6	3.9	6.0	5.0
17-19	1.5	2.2	1.9	2.8	4.2	3.5

Source: Statistics Unit, Ministry of Education, Youth and Culture. Kingston, Jamaica

3. Governance of the system, school organization and management

The organizational structure of the Ministry of Education, Youth and Culture (MOEY&C) is shown in appendix 1. In addition to the central office located in Kingston, the capital city, there are six regional offices. At the highest level, there are three political appointments: a female Minister who is a Member of Parliament and two Ministers of State appointed by the Prime Minister. Below that level all employees are a part of the public sector Civil Service. The highest position in this grouping, the Permanent Secretary, is female. There is a male Chief Education Officer (CEO) and one male and female Deputy Chief Education Officer. At the level of middle management, Senior Education Officers (SEO) and Education Officers (EO), there are 44 males and 63 females. Included in these positions are persons who staff the ‘Core Curriculum Unit’ and the ‘Curriculum and Support Services Unit’ both of which are headed by females. These figures indicate that at the level of top and middle management, where policy and decisions that govern the system are determined, there is an approximate 1:1.5 ratio of males to females and that females are, therefore, well represented in decision-making structures of the system.¹

Table 2: Male/Female Composition of Teaching Force at Primary and Secondary Levels

Level	Male	Female	Total
Pre-primary	N/A	N/A	4 529
Primary (1-6)	617 (13.6%)	5 286 (86.4%)	5 903
All-Age (1-6)	313 (11.9%)	2 318 (88.1%)	2 631
Primary/Jr.High (1-6)	138 (8.2%)	1 541 (91.8%)	1 679
All-Age (7-9)	329 (41.1%)	471 (58.9%)	800
Primary/Jr.High (7-9)	310 (28.3%)	786 (71.7%)	1 096
Secondary High	2 996 (33.0%)	6 081 (66.0%)	9 077
Technical High	400 (38.9%)	628 (61.1%)	1 028
Vocational/Agricultural	31 (56.4%)	24 (43.6%)	55
Total (excluding pre-primary)	5 134 (23.1%)	17 135 (76.9%)	22 269

Source: Statistics Unit, Ministry of Education, Youth and Culture. Kingston, Jamaica

Figures for 2000/2001² indicate that, at that time, there was a total of 22 269 teachers at the primary and secondary levels (excluding pre-primary schools) of which 76.9% (17

¹ Information of the sex distribution of persons on staff at the MOEY&C was not available and was obtained from a senior member of staff of the personnel department.

135) was female and 23.1% (5 134) was male, that is, approximately a 3.3:1 female/male ratio with females dominating in all school types except for in the vocational/agricultural schools where, not surprisingly, the proportion of males to females ratio was higher (56.4%) [See Table 2].

The under representation of women in decision-making positions or what is described as the ‘glass escalator’ phenomenon where, proportionately, men in female dominated sectors have greater upward mobility than the women, is evident, however, in the general teaching force. In all school types, except in the vocational/agricultural schools, as a percentage of their group, males are more highly represented in principal positions than are females.

Overall, 7.3% of all male teachers held positions as principals (377 of 5 134) whereas only 3.2% of the female teaching force (555 of 17 135) held appointments at this level. Even at the primary level where the stereotype of female caregiver and nurturer is prevalent, the proportion of male to female Principals in the three school types serving that age cohort was 18% to 4.3% (primary), 27.2% to 6.4% (All-Age) and 18.8% to 2.1% (See Table 3). At the secondary level the same obtains in all school types except for the Agricultural/Vocational schools where a male headed two of the three institutions. At the level of vice-principals, the overall ratio was somewhat more equitable with 2.1% of all male teachers (109 of 5 134) being at that level while this was the case for 2.9% of all females (513 of 17 135).

Table 3: Male/Female Principals as Proportion of Total Number of M/F Teachers in All School Types at Primary & Secondary Levels

Level	No. Male Teachers	No. & % Male Prins.	No. Female Teachers	No. & % Female Prins.
Primary (1-6)	617	111 (18.0%)	5 286	226 (4.3%)
All-Age (1-6)	313	85 (27.2%)	2 318	148 (6.4%)
Primary/Jr.High (1-6)	138	26 (18.8)	1 541	32 (2.1%)
All-Age (7-9)	329	74 (22.5%)	471	60 (12.7%)
Primary/Jr.High (7-9)	310	8 (2.6%)	786	15 (1.9%)
Secondary High	2 996	63 (2.1%)	6 081	67 (1.1%)
Technical High	400	8 (2.0%)	628	6 (0.1%)
Agri./Vocational	31	2 (6.5%)	24	1 (4.2%)

Source: Statistics Unit, Ministry of Education, Youth and Culture. Kingston, Jamaica

Of interest is the fact that, figures from the same source, indicate that at these levels of the system, proportionately, women are more highly qualified than men. In terms of trained university graduates, 17.9% of all females had attained this level of qualification whereas this was the case for only 13.7% of all males. In spite of this, the figures presented earlier show that females are proportionately under represented at the higher level of the profession as principals. These patterns mirror those of the wider labour market where, in spite of the fact that the female labour force is more highly educated than the male force, women are predominately positioned in sales and service related occupations and, on average, earn less than their male counterparts (Bailey & Ricketts, 2003).³

Schools are regulated by the 1980 Education Regulations, which are currently under review. Included in this are arrangements and regulations related to management and operation of public educational institutions, health, safety, student matters, matters related to teachers and boards of management. Included in this are guidelines related to length of the school year and the number of hours of instruction per day. The arrangement of operating two shifts each catering to a different population of students obtains in a few primary and secondary level schools.

There are clearly stated regulations governing student conduct and reference is made to how cases of pregnancy should be treated. The regulation states that:

A student of a public educational institution who becomes pregnant shall be excluded from attending the institution during the period of pregnancy, but the Minister may take such steps as may be necessary to permit her to continue her education in that institution or, if convenient, in another public institution. (p.16)⁴

Beyond the formal school system, opportunities for continuing education, counseling, skills training and day care facilities are offered by the Women's Centre Foundation of Jamaica (WCFJ) for pregnant teenagers and teenage mothers to minimize the impact of teenage pregnancy which may include interrupted or terminated education, dependency,

poor parenting skills and general under achievement. Services are also offered to teenage fathers and young men at risk.⁵

4. Policy Governing the System

The National Council on Education (NCE) is an agency of the Ministry of Education, Youth and Culture (MOEY&C) that was established in 1993 and mandated to monitor education programmes and policies and to ensure that boards of management of educational institutions are legally constituted and functioning efficiently. The Council therefore advises the Minister of Education on matters related to education in Jamaica.⁶

A White Paper prepared in 2000 states that the overall Mission of the MOEY&C, Jamaica is to:

*...provide a system which secures quality education for all persons in Jamaica and achieves effective integration of educational and cultural resources in order to optimise individual and national development.*⁷ (p.2)

Linked to this Mission, are seven strategic objectives, which together drive the national corporate plan for the Ministry. Although the Mission Statement speaks to the need to 'provide quality education for all persons' and one of the strategic objectives makes reference to 'securing teaching and learning opportunities that will optimize access, equity and relevance throughout the education system', only at one point is there any explicit or specific reference to the need to address issues of social inequity in the education system based on, among others, hierarchies of gender, class and race/ethnicity.

A statement is made that:

The issue of gender imbalance in the education system is a source of concern as boys appear to be disadvantaged. To regain some balance a special effort will be made in curriculum development and delivery to engage boys and girls in the learning process. (p.5)⁸

Data, related to both quantitative and qualitative dimensions of the educational experience at all levels, which will be addressed in subsequent sections of this paper, however, point to clear gender differentials that affect both sexes and which need to be addressed through precise, evidence-based policy positions. What also needs to be taken

into account is the link between educational attainment and broader social outcomes in relation to the sexes. Data suggest that in spite of what is labeled as ‘male disadvantage or underachievement’ in the educational arena, males nonetheless have a competitive advantage in terms of wider social outcomes. Any analysis of the problem, as it relates to males in the system, must take cognizance of this inverse relationship between educational outputs and social outcomes if the problem is to be properly diagnosed and addressed through programme and policy formulation.

3. Enrolment at all levels of the system

At the early childhood level there are 2 062 schools and, in keeping with the net and gross enrollment data, there are slightly more males (50.8%) than females enrolled at this level. At the primary level there are 792 schools and all are coeducational institutions save one school which is all-female. Primary education is offered in 3 types of schools: primary, all-age and primary and junior high. Overall enrolment at this level also favours males (51.1%). Secondary education is offered in 5 types of schools: all-age (grades 7-9) junior high (grades 7–9), secondary high (grades 7-11), technical high and vocational/ - agricultural high (grades 7-11). There are 595 secondary level schools including 19 single-sex schools (13 all female and 6 all male) and, at this level, there is a slight gender gap favouring females (50.8%). Compared with the secondary level, enrolment declines dramatically at the tertiary level and even though disaggregated data were not available for all institutions, overwhelmingly, enrolment favours females (67.3%) at this level (See Table 4).

Table 4: Number of Schools and Enrolment by Level, School Type & Sex, 2000-2001.

Level	Number of Schools	Enrolment		
		Male	Female	Total
Early Childhood	2 062	55 333 (50.8%)	53 539 (49.2%)	108 872
Primary (1-6)	350	94 351	92 654	187 005
All-Age (1-6)	353	37 376	33 850	71 226
Primary/Jr.High (1-6)	89	27 942	26 198	54 140
Total Primary (1-6)	792	159 669 (51.1%)	152 702 (48.9%)	312 371

All-Age (7-9)	353	9 637 (64.3%)	5 361 (35.7%)	14 998
Junior High (7-9)	90	11 571 (56.4%)	8 955 (43.6%)	20 526
Secondary High	135	82 283 (47.3%)	91 810 (52.7%)	174 093
Technical High	14	8 372 (48.5)	8 898 (51.5%)	17 270
Agri./Vocational	3	217 (43.6%)	281 (56.4%)	498
Total Secondary	595	112 080 (49.2%)	115 305 (50.8%)	227 385²
Comm. Colleges	7	2 414 (34.2%)	4 635 (65.8%)	7 049
Visual/Performing Arts	1	134 (51.3%)	127 (48.7%)	261
T.T Progs.	10	893 (19.2%)	3 763 (80.8%)	4 656
College of Agri./Sc.	1	245 (34.2%)	471 (65.8%)	716
U of Technology	1	3 036 (44.7%)	3 749 (55.3%)	6 785
UWI (J'can stds.)	1	2 923 (28.9%)	7 203 (71.1%)	10 126
Tertiary	21³	9 645 (32.6%)	19 948 (67.4%)	29 593

Source: Jamaica Education Statistics 2000-2001. MOEY&C, Kingston, Jamaica

These patterns of male advantage at the primary level and female advantage at the secondary and tertiary levels, in terms of enrolment, have been consistent over the last two decades. Data collected for five time periods between the 1980/81 and 2000/01 school years, illustrate these trends. At the primary level enrolment favours males at all five time periods whereas the reverse is the case at secondary level with enrolment favouring females at all points (See Appendix 1, Figs. 1.1 & 1.2). At the tertiary level, complete data were not available for 1995/96 hence the convergence of male/female points for that year. Generally, however, the graph clearly illustrates that although, over time, provision at this level has increased so has the gender gap in enrolment with twice as many females as males enrolled at this level in 2000/01 (See Appendix 1, Fig. 1.3).

Data for enrolment by grade (See Table 5) indicate, more precisely, points at which the gender ratio changes in favour of males or females. In Grades 1-4 enrolment favours males. The shift in favour of females starts at the Grade 5 and into Grade 6 (10-11 years). Differences at this level are probably due to slight variations in the male to female ratio in yearly age cohorts, repetition as well as dropouts from the system. At grade 7, due to selection processes that place students into the various types of secondary level schools,

² Enrolment for Grades 12 and 13 not included.

³ Independent tertiary institutions (21) are not included and some institutions are counted twice because of offering different programmes; eg. College of Agriculture, Science and Education.

an almost 1:1 ratio is restored and is more or less retained up to the Grade 9 level. Of note is the fact that at the secondary level males predominate in All-Age Schools and are also the majority in Junior High Schools. Both these school types, and particularly All-Age Schools, generally cater to students from lower socio-economic strata and to academically less able students. The male/female distribution in these school types, therefore, illustrate how two hierarchies, social class and gender, intersect to determine placement in these school types.

Results of primary level assessments show that, overall, girls outperform boys and therefore are positioned in the more prestigious and the better resourced secondary level school types which offer opportunities for formal schooling beyond Grade 9 and place girls on a tertiary level trajectory. As with overall enrollment patterns, male/female enrolment patterns in secondary level schools have been evident over the period for which trend data were examined, 1980/01 to 2000/01 (See Appendix 2, Figs. 2.1, 2.2 and 2.3).

The mapping of data over this period also illustrates changes in capacity in these various school types resulting from efforts to rationalize and upgrade secondary level schools. Figure 2.1 shows the decline in enrolment of both sexes in schools designated 'All-Age'. As part of the reform initiative many schools in this category have been upgraded and renamed 'Junior High' schools. Boys, nonetheless, continue to represent the larger share of enrolment in these newly designated schools. In the case of the secondary high school type, schools originally designate 'New Secondary' have been upgraded and realigned with the traditional grammar schools and all have been renamed 'Secondary High' schools, hence the increased capacity between 1995/96 and 200/2001 (See Appendix 2, Fig. 2.1).

Another factor, among others, that influence enrolment patterns is geographic location. No sex-disaggregated urban/rural data were available, but information from the *2001 Survey of Living Conditions*⁹ indicates that whereas at the lower cycle of the secondary

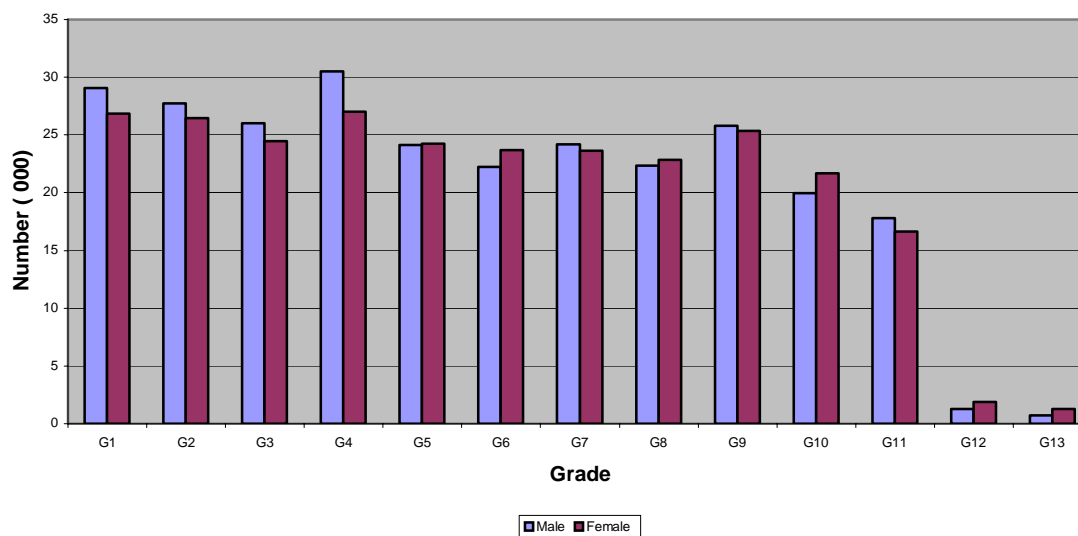
level (12 to 14 years), compared with previous years, a high level of enrolment was maintained in urban and rural areas, at the upper cycle (15 to 18 years), enrolment in urban areas was higher than that in rural areas.

Table 5: Enrolment at the Primary/Secondary Levels by Grade and Sex

Grade	Number/% Male	Number/% Female	Total
1	29 057 (52%)	26 860 (48%)	55 917
2	27 750 (51.2%)	26 442 (48.8%)	54 192
3	26 001 (51.5%)	24 477 (48.5%)	50 478
4	30 515 (53%)	27 002 (47%)	57 517
5	24 117 (49.4%)	24 261 (50.1%)	48 378
6	22 229 (48.4%)	23 660 (51.6%)	45 889
Sub-total	159 669 (51.1%)	152 702 (48.9%)	312 371
7	24 188 (50.6%)	23 602 (49.4%)	47 790
8	22 372 (49.5%)	22 856 (50.5%)	45 228
9	25 782 (50.4%)	25 343 (49.6%)	51 125
Sub-total	72 342 (50.2%)	71 801 (49.8%)	144 143
10	19 949 (47.9%)	21 680 (52.1%)	41 629
11	17 794 (48.8%)	16 642 (51.8%)	36 436
Sub-total	37 743 (48.4%)	40 322 (51.6%)	78 065
12	1 272 (40.3%)	1 868 (59.7%)	3 158
13	723 (35.8%)	1 296 (64.2%)	2 019
Sub-total	1 995 (38.5%)	3 182 (61.5%)	5 177
Grand Total	271 749 (50.3%)	268 007 (49.7%)	539 756

Source: Jamaica Education Statistics 2000-2001. MOEY&C, Kingston, Jamaica

Fig. 1: Male/Female Enrolment by Grade and Sex, 2000/01



Beyond Grade 9, two trends are noticeable. Firstly, there is a sharp decline in enrolment at Grade 10 and in that year the difference in numbers was 28.6% for males and 14.5% for females. Secondly, a consequence of this fallout is that the gap in the male/female enrolment ratio widens and there is a four-point difference in favour of females (52%). The main factor that accounts for the decline in enrolment at this stage is reduced capacity. Four hundred and forty three (443 or 74%) of the 595 secondary level schools do not go beyond grade 9 and for the majority of students this point marks the end of formal schooling in the public sector.

For the majority of those who remain in the system, Grade 11 is the terminal point. At the point of transition to grade 12 the difference in enrolment figures between Grades 11 and 12 for males and females is 92.9% and 88.8% respectively pointing to the wide gap in enrolment between the sexes at this stage. Females account for 60% of the Grade 11 cohort. At Grade 13 a further decline occurs for both sexes and females account for 64% of enrolment which is more or less consistent with that at the tertiary level.

This trend of higher female enrolment beyond grade 9 has been evident over two decades (See Appendix 3, Figs. 3.1, 3.2, 3.3 and 3.4). These data show that over this time period the gender gap in enrolment remains more or less constant at Grades 10 and 11. Beyond this point, however as noted before, not only is there a dramatic decline in enrolment of both sexes but from 1985/86 the gap progressively widens in favour of girls.

Different explanations that have been proffered for the marked decline in male enrolment beyond Grade 9. Figueroa (1997)¹⁰ postulates that male under-performance in the Jamaican educational system is rooted in socialisation practices in the home, which allow for privileging of the male gender in ways which create dissonance with the expectations of the school. Boys, he contends, get less exposure to tasks in the home that build self-discipline, time management, and a sense of process. Therefore, the beginnings of conflict with the education system are set in place at the very start of a boy's life.

Evans (1999)¹¹ contends that school practices such as corporal punishment and insults are demeaning to students and lead to anger and that boys, as a result of their own behaviour, are more likely than girls to suffer from such practices and to be subjected to negative evaluations from teachers. These factors, she argues, depress student motivation and commitment to academic work. Boys lower levels of literacy, the construction of an 'anti-academic culture', a classroom pedagogy which seems to alienate boys and teacher expectations which are biased in favour of girls, all, in her opinion, contribute to boys reduced interest in school and higher drop-out rates than girls.

In a small pilot study¹² of boys and girls who had dropped out of the formal school system, the top reason given by boys for being out of school was financial constraints and the inability of caregivers to meet direct and indirect costs of schooling. There is also some indication that, in situations of limited financial resources, female preference is exercised. The second reason was the impact of community and school violence on their attendance and ultimate dropout. Two boys interviewed in the study cited incidents of violence that were responsible for their dropping out of school and as they put it:

Pure badness and war at school and my mother move because of violence where we live and I never go to a new school.

School is very good to learn to read and write but pure war in school and teacher can't stop it.

One respondent opined that teachers were helpless in these situations because:

Students have more power than teachers because they have knife and gun and teacher only have belt.

In the case of school violence, one respondent suggested that boys were more targeted than were girls.

Whole heap of violence in school. 'Bare' gun in the school and robberies in school. Me afraid of the violence. My sisters go to school but my mother tried to get me into JAMAL.

Data on dropout rates confirm that from as early as Grade 2, the dropout rate for males is higher than that of females at all points for which data were available (See Table 6). No

rates are given for transition from 6 to 7 since Grade 6 marks the end of the primary level. Rates cannot also be calculated for transition from 9 to 10 and 11 to 12 since for most students in All-Age and Primary and Junior High Schools, Grade 9 is terminal and for most other secondary level schools Grade 11 is terminal.

Table 6: Dropout Rates by Grade and Sex

Rates	Grade									
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	10-11	11-12
Drop-out Rates	-1.7	1.4	2.3	6.1	3.3	-	2.7	-8.3	-	12.9
Male	-1.1	1.9	2.9	7.0	4.8	-	3.1	-8.1	-	12.8
Female	-2.4	0.9	1.7	5.1	1.8	-	2.2	-8.4	-	12.9

Source: Jamaica Education Statistics 2000-2001. MOEY&C, Kingston, Jamaica.

4. Curriculum: content, methods, strategies

Over the decade of the 90s major curriculum reforms were undertaken at the lower secondary and primary levels respectively, aimed at rationalizing offerings and improving quality. In the latter case, widespread dissatisfaction with the product of the primary level system in terms of basic numeric and literacy skills led to the Government of Jamaica embarking on a series of initiatives as part of a **Primary Education Improvement Project (PEIP)**. Included was the reengineering of the curriculum to allow for a greater measure of integration. This, it was argued would facilitate the rationalization of the volume of subject matter and would further allow for the inclusion of relevant personal and social issues which previously had not been addressed and which could only be treated from an interdisciplinary perspective. At the lower cycle (grades 1 to 3), the curriculum is based on the webbed approach where ideas and concepts are drawn from the full constellation of disciplines and organized around fertile themes while at the upper cycle (grades 4 to 6) the existing subject based approach was retained with an effort to correlate topics across the various subject areas and introducing projects around topics or issues which could be treated from a transdisciplinary approach.¹³

Decisions about the reengineering of the primary curriculum were grounded in the outcomes of an evaluation of the primary system¹⁴ as well as a study on absenteeism.¹⁵ Data from the former indicated that girls at point of exit (Grade 6) had a substantially higher score than boys on a School Achievement Test (SAT) comprising items on Mathematics, Language Arts, Science and Social Studies. The absenteeism study revealed gender differences in attendance patterns. Overall attendance rates for males/female were 75% and 77% respectively and girls in rural areas had the highest rates and boys the lowest. These gender differentials in performance and attendance seemed not to have been taken directly into account in the formulation of the recommendations coming out of these studies. Only in one instance was reference made to prohibiting streaming to ensure that students are not placed in clusters depending on aptitude and social background (Recommendation 29, p. 98). Given the sex differences in performance, explicit reference could have been made to the influence of gender on performance and how this could be addressed in classroom pedagogy and organisation.

In the case of the secondary level, studies undertaken in the late 80s and 90s (Evans, 1988;¹⁶ Bailey *et al*, 1990;¹⁷ UNESCO, 1993¹⁸) highlighted problems associated with diversity, inequality and deficiencies in existing curricula; inadequate provision, selection and access; inequities in resource allocation and staffing which resulted in variations in the quality of instruction and learning. At that time, the major concern was with social class inequality. Subsequent studies (Bailey & Brown, 1999;¹⁹ Evans, 1999;²⁰ Bailey, 2001;²¹ Bailey, 2002²²), however, point to the fact that sexual inequalities are as evident as are social inequalities and that in the social context of schools and classrooms, as Arnot (1994) postulates, these two structures of inequality constitute hierarchies where both class and gender identity are negotiated, constructed and maintained.

In 1984, a project for the **Reform of Secondary Education (ROSE)** comprising several interlocking initiatives, including the development of a national curriculum for the lower secondary level was initiated. The major aim of the curriculum innovation was the development and implementation of a common curriculum for the lower secondary cycle aimed at rationalizing teaching, learning and assessment at that level and providing

students with opportunities to experience a broad based programme as a foundation for life, for further education or for employment. The specific objectives were the achievement of greater equity, the improvement of the quality of learning and the enhancement of individual productivity. A significant thrust of the new curriculum was, therefore, the transformation of the roles of teacher and learner from teacher as dispenser of knowledge with students regurgitating information by rote to teacher as facilitator of learning and students as critical thinkers constructing meaning for themselves. In relation to issues of equity the major concern articulated in the justification of a common national curriculum was the provision of equal access to quality education for all students in the 11 to 14 age cohort and the dismantling of a system differentiated on the basis of social class assignment.

Two initiatives are noteworthy in this innovation: the infusion of **Career Education** elements into the five core and eight personal development subject areas and the introduction of an integrated Resource and Technology subject. In the former case, the goal is to help students make meaningful and satisfying career choices through the three stages of career development: awareness, exploration and preparation. Given the fairly fixed occupational sex-segregation of the Jamaican labour market which reflects the typical gender division of labour with women clustered in low-paying, low-status service related occupations, it is encouraging that the curriculum guide makes explicit reference to the fact that educators not only have a responsibility to guide the process of career development but also to 'expose all students to, and encourage them to explore non-traditional careers regardless of sex, race or ethnic background'.²³

In addition to use of classroom time for promoting career education, a variety of strategies is recommended: career counseling, mini school or community based projects, work experience, intergenerational programmes and use of film and resource persons. The effectiveness of the curriculum and related strategies in reducing gender stereotyping in career choice needs to be assessed. The continuing sex-segregation of the curriculum at the upper secondary level, particularly in the technical-vocational areas, suggests that

more needs to be done if inroads are to be made into entrenched occupational sex segregation patterns that currently obtain.

Prior to the introduction of the **Resource and Technology** curriculum students at the lower secondary level were exposed to five discrete technology-oriented subjects: Agriculture, Art and Craft, Business Education, Home economics and Industrial Arts. In most instances, participation in these subjects was gender based in keeping with accepted cultural norms and gender ideologies reinforced by cross timetabling and covert influences of home, school and peers. The rationale for the change is stated in terms of meeting student needs and national needs as well as preparation for progression to the upper secondary cycle. No reference is made to the need to expose males and females to the full range of options with a view to dismantling traditional gender stereotypes associated with technical-vocational studies and facilitating more open choices for career development. In any event, entries for the Caribbean Secondary Education Certificate (CSEC) offered by the Caribbean Examinations Council (CXC) indicate a clear demarcation between male and female dominated vocational subjects with males clustered in the technical crafts and females in the domestic and business crafts. The integrated approach at the lower level has therefore not impacted on sex-linked choices at the next level.²⁴

All students at the primary level are exposed to Science as part of the integrated curriculum for grades 1 to 3 and as a discrete subject at grades 4 to 6. The science curriculum, if properly implemented, is intended to be a base for **Science and Technology** at the secondary level as well as equipping students to understand themselves and their environment. At the upper primary grades technology is also promoted as a tool for teaching and learning and for remediation.

A range of science and technology subjects is offered at the secondary level and the MOEY&C has drafted an **Information and Communication Technology (ICT)** policy framework for governing ICT activities in the education system. In the statement it is acknowledged that the greatest potential of ICT...

...lies in human resource development. To compete successfully in a fiercely competitive global economic environment a highly skilled and educated workforce with aptitude and skills in the application of information and communication technologies in everyday life will be essential. (p. 2)

The statement claims that several issues were considered in developing a policy for the country to make optimal use of ICT in the teaching/learning process. However, no cognizance is taken of the extensive evidence, which points to universal issues of inequality and the well documented 'gender divide' in terms of access to these technologies as well as opportunities for pursuing studies in this field at various levels of the education system.

Data from two local sources indicate gender disparities in relation to IT education and that males are better positioned in this field of study at both the secondary and tertiary levels. The CXC, CSEC offers Information Technology (IT) examinations at General and Technical Proficiency levels. The general proficiency is the more specialized track preparing students for careers in IT or to pursue IT studies at the tertiary level while the Technical Proficiency equips individuals to work in jobs that require only basic IT skills. Entries for the 2002 offerings of these examinations indicate that although far fewer students were entered for the General than the Technical Proficiency (11 versus 459), 90.9% of entries for the general proficiency was male. On the other hand, there were more females (52%) entered for the technical proficiency.

Student records from the Mona Campus of the University of the West Indies (UWI) show that in spite of the overall higher participation of females in the Faculty of Pure and Applied Sciences, for the three academic years for which data were obtained (1998-2001) males represented the larger share (67-68%) of the cohort registered in the Computer Science major. Additionally, in the 1999/2000 academic year they also represented the larger share of persons registered for the 17 computer science courses; and, although in that year, the pass rate for males was higher in only 6 of the 17 courses, in terms of ratios, males obtained the higher percentage pass in all courses.

At the lower secondary level **Life Skills** are promoted through a number of personal development areas including dance, drama, physical education and religious education. Life skills, social participation skills and accepted social norms are also fostered through themes in the Social Studies curriculum such as ‘living together in groups’, ‘social and environmental issues’, ‘the rights of the child’, ‘rights and responsibilities of employers and employees’ and ‘human relations. Although the rationale states that the role of the Social Studies curriculum is to provide opportunities for young people ‘to understand more about themselves and to become more aware of the complex social relationships of which they are a part’, no explicit link is made to the impact of social organizing elements such as gender, class and race in shaping and determining these social relations. Inclusion of these concerns would therefore be entirely dependent on teacher initiative and awareness of the dynamics of these factors. There is also a National Guidance Curriculum for Grades 7 to 9 which includes a range of issues including values, ethics, relationships and self empowerment.

The increasing incidence of sexually transmitted diseases and **HIV/AIDS** in the school has prompted the introduction of STDs/HIV/AIDS prevention education to students in Grades 1 to 11. A Teachers’ Guide and a Peer Educators’ Handbook have been developed by the MOEY&C which address issues such as reproductive health, responsible sexual behaviour, personal development, values and responsibility in relationships.

Education for citizenship is important to prepare persons to participate in civic and political processes at all levels. The main subject through which this is achieved is Social Studies taught at both the primary and secondary levels and which aims at

...providing experiences through which students are expected to gain knowledge and insights, develop and practise a variety of skills and attitudes as well as human understanding and social responsibility. .. Social Studies should create for students a necessary bridge between school and society. (p.2/3)²⁵

Data on participation and presence in decision-making structures, however, suggests that either the outcomes of education for citizenship are uneven or that, in spite of the best intentions of these education goals, structural barriers prevent females from enjoying their rights in this regard. In fact, the inverse relationship between women's level of educational attainment and their participation in decision-making in Jamaica and other Caribbean countries, is commented on in a UNESCO Report on Education in the Caribbean coming out of a 1996 meeting of Ministers of Education of Latin America and the Caribbean²⁶ where it is noted that:

“...despite the advances made by women in education..., when compared to men, they still have less access to opportunities and rewards and to the corridors and board rooms of political and economic power.” (p.12)

Efforts to prepare and equip individuals with the skills, attitudes and tools to engage in informed decision-making and responsible social action need to take into account the over riding influence of the hidden curriculum which seems to successfully transmit gender stereotypes and inculcate in girls a lack of self-confidence, personal efficacy and power and therefore fear of success if placed in positions of leadership and decision-making.

One aspect of the hidden curriculum through which gender stereotypes are transmitted is the support **print and non-print materials** used to support the delivery of curricula at all levels. Many of the sexual inequalities that typify the educational process result from the assumption that men and women are expected to perform different functions in life. Uncritical acceptance of this ideology is achieved through a process of socialisation by a number of agencies, the school being of paramount importance in this respect. In this regard, the images portrayed in curriculum materials are powerful and effective socialisation tools.

Research has therefore focused on ways in which curriculum materials portray images that convey implicit messages that contribute to the acquisition of differentiated gender identities and the internalisation and acceptance of corresponding sex-linked behaviours and roles. One of the earlier efforts in this respect was work carried out by King and

Morrissey²⁷ who analysed twenty textbooks published in support of the History, Geography and Social Studies Caribbean Examination Council (CXC) curricula, used at the secondary level in Commonwealth Caribbean States. The aim was to determine whether racist, sexist and Eurocentric biases were evident in these texts. Both racist and Eurocentric biases were identified but the authors observe that:

“The textbooks reviewed are at their worst in terms of the portrayal of women. Women are invisible in most of the texts. Sexism appears through the use of language, masculine words frequently used to include women. When they do appear, women play subordinate or menial roles. The books also fail miserably in presenting the contributions of women to the development of the Caribbean.” (p.43)

Work carried out by Ayodike²⁸ and Pollard²⁹ (1989) focused exclusively on how women are portrayed in texts used in literature. Ayodike’s work, based on six texts associated with the CXC English curriculum, revealed that damaging concepts of women were projected and there was little evidence of images which attempted to challenge the stereotypic image of females. Pollard, on the other hand, found that short stories authored by Olive Senior sought to convey the strength, wisdom and courage typically associated with Caribbean women, and could therefore provide positive images for young women to emulate.

Later work by Bailey³⁰ and Whiteley³¹ established similar gender bias in Language Arts textbooks used at the primary level and Science textbooks used at the secondary level in Jamaica, respectively. Bailey’s findings corroborate patterns of gender stereotyping reported in studies from the North, where, not only were girls/women under-represented in both the pictorial and word content of the books, as main characters and as directing and controlling speech, but males and females were also characterised as displaying traditional gender-appropriate behaviours.

Whiteley’s analysis of Science textbooks revealed that there was a gender balance in illustrations of young people, suggesting that students are expected to play an equal role in school science. There was, however, an imbalance in the illustrations of adults, in favour of males, suggesting that, in the adult world of work, science is a province more

appropriate for males. The intersection of race/ethnicity and gender was also noted by Whiteley who observed that in an attempt to use ethnically-appropriate illustrations the absence of female exemplars further reduced the overall number of illustrations used in the Science texts.

Research conducted by Drayton³² on images portrayed in Caribbean English textbooks, centres on the potential power of textbooks to perpetuate Eurocentric and patriarchal biases in contemporary Caribbean society. She draws on Marxist theories of capitalism and the sexual division of labour to provide the frame for examining the intersection of race, class and gender in both the textual and non-textual elements of the texts. She argues that in spite of the demise of colonialism, Caribbean society is dominated by the few in powerful positions, mostly men, and that this domination is reproduced through social institutions like the school. The author contends that textbooks are a universal vehicle and tool of this reproduction of dominant social values and ideologies and this is confirmed by the results of her analyses.

The effect of gender biases in children's reading materials on the construction of gender-related conceptual schema and codes as well as their influence on the formation of traditional sex-linked attitudes and value systems and for reinforcing sex segregation of the curriculum and career choice are highlighted by these researchers. Several publishers have now developed guidelines to ensure that curriculum materials are gender sensitive and that gender stereotypes are minimized or eliminated.

The MOEY&C operates a **Media Services Unit** whose main function is 'to provide and develop multi-media curriculum materials in the form of print, audio-visual, educational software and small media for the pre-primary, primary and secondary school system'.

One of the stated functions of the Unit is to 'evaluate the suitability and effectiveness of materials produced...or procured for use in schools'.³³ The criteria used in these assessments were not listed but certainly images and print that portray gender bias and stereotypes need to be a central concern. Teachers should also be alert to the potential influence of curriculum materials on gender socialization and need to be equipped to

assess textbooks and other materials before recommending them for use in the teaching/learning process.

Another factor that is important is assessing gender fairness in relation to the curriculum and the learning environment is the sexual politics of schools and the nature and quality of **classroom interactions** among students and between students and teachers particularly in coeducational, mixed sex settings. A pilot study³⁴ carried out in a secondary level coeducational classroom revealed a clearly defined gender regime with strong classification and framing operating in the observed classrooms. The manifestations of femininity and masculinity, however, varied within this regime depending on the specific curriculum context in which the observations were made.

In the traditionally male-dominated areas of Physics and Mathematics, the typical male/female hierarchy was evident with the boys displaying the expected 'macho' type masculinity with the girls, more often than not being the subject of open acts of harassment, and occupying the typical subordinate position within the pedagogical relationship. In these classes sexuality played a significant role in shaping the relationships. In the context of the Literature classes, the converse was the case with the boys being less 'macho', being less openly antagonistic towards girls but presenting themselves as 'victims' who, instead of taking responsibility for their behaviour, claimed that it was precipitated by the attitude of females towards them.

Alternative masculinities and femininities were therefore evident from one time of making observations to another and were dependent on the particular 'educational moment' being observed. It is evident that the particular form of masculinity and femininity displayed at any given time, was mediated by a nexus of inter-related factors including the nature of the discourse, the sex of the teacher, the pedagogical strategies employed and the pedagogical relationships between teacher and student and student and student.

5. Curriculum participation

There is a common curriculum from Grades 1 through to 9 so there is little or no gender differentiation in terms of curriculum participation up to this point. Beyond Grade 9, however, students who remain in the system make subject choices in preparation for local and international secondary level school-leaving examinations taken at the two points of exit from the secondary level: Grades 9 and 11. Entries for these examinations give an indication of the positioning of the sexes in the range of academic and technical-vocational curriculum options offered at the lower and upper secondary levels.

Data on entries for the two local examinations, the Jamaica School Certificate and the Secondary School Certificate taken at Grade 9 and 11 respectively, were not disaggregated so the male/female distribution of students in the various subject areas could not be determined.

The Caribbean Secondary Education Certificate (CSEC) offered by the Caribbean Examinations Council (CXC) is also taken at Grade 11 and is the most sought after school leaving certificate used for qualification to enter the job market and to meet matriculation requirements for tertiary level institutions including the University of the West Indies, the University of Technology and Teacher Training Institutions.

**Table 7: Public School Sittings & Grades 1, 2 & 3 Passes by Sex in 2001
CSEC, CXC Examinations**

		Basic	General & Technical
Sittings	Male	1 516 (47.4%)	41 455 (36.5%)
	Female	1 681 (52.6%)	72 048(63.5%)
	Total	3 197	113 503
Passes 1,2 & 3	Male	406 (45.5%)	23 888 (34.8%)
	Female	487 (54.5%)	44 830 (65.2%)
	Total	893	68 718

Source: Jamaica Education Statistics 2000-2001. MOEY&C, Kingston, Jamaica.

In 2000/2001 this examination was taken by approximately 15.2% (5538) of the Grade 11 cohort with females accounting for 52.6% of entries for the Basic Proficiency and 68.5% of entries for the General and Technical Proficiencies. General and Technical Proficiency subject offerings can be grouped into three tracks: the first comprised of 17 ‘academic’ subjects, the second with two visual and performing arts subjects and the third with 15 technical vocational subjects. In the academic grouping, the only subject for which there were more male than female entries was Physics and entries for Visual Arts were also male dominated. In the technical-vocational areas, however, there was a clear gender divide with males clustered in the technical crafts and females in business studies and the domestic crafts (See Appendix 2 & Figures 1 & 2). Fewer subjects are offered at the Basic Proficiency level and in this case the sex-segregation is between academic and technical subjects with males clustered in the technical areas.

Figure 2: M/F Entries for Technical Crafts in CSEC, CXC Examinations by Sex, 2000/2001

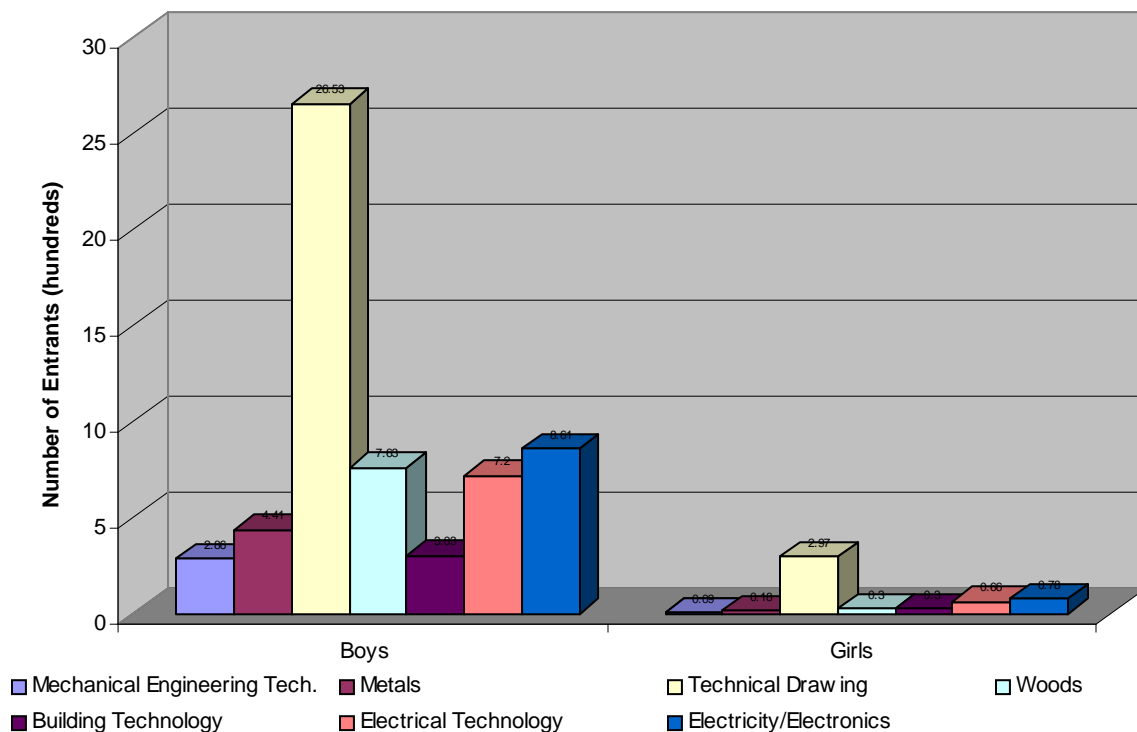
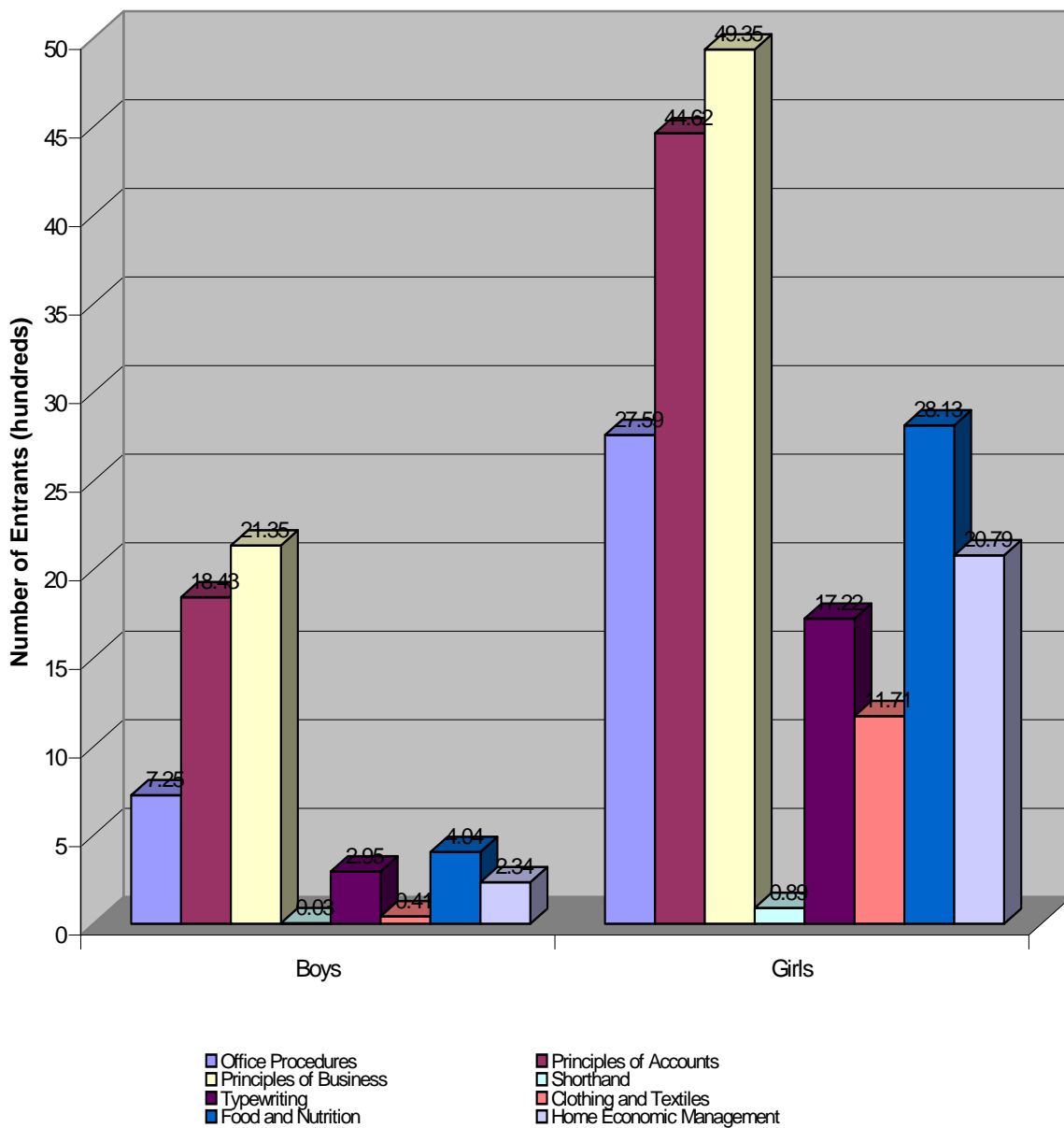


Figure 3:

Caribbean Examinations Council (2000/2001)
Entries for Business Studies and Domestic Crafts - by Sex



Male/female enrolment ratios at the Mona Campus of the University of the West Indies almost parallel that at Grade13 of the secondary level with females accounting for 71.4% of total registrations in part-time and full-time programmes. Due to this wide gender gap in enrolment, females are numerically dominant in all faculties. It is interesting to note, however that it is only in the Pure and Applied Sciences faculty that there is almost parity (48% M/52% F) with 25% of all males pursuing studies in this field (See Table 8).

Table 8: Male/Female Enrolment of Jamaican Students at the Mona Campus of the UWI by Faculty and Sex, 2000/2001

Campus	Overall	Humanities	Education	Law	Medical Sciences.	Pure & Applied Scs.	Social Sciences
Mona	M 2117 (28.6%)	332 (20%)	107 (17.4%)	8 (17%)	131 (37.2%)	534 (48.2%)	1005 (27.5%)
	F 5295 (71.4%)	1301 (80%)	508 (82.6%)	39 (83%)	221 (62.8%)	573 (51.8%)	2563 (72.5%)
	T 7412	1663	615	47	352	1107	3658

Source: Jamaica Education Statistics 2000-2001. MOEY&C, Kingston, Jamaica.

The gender gap in enrolment at the University of Technology, which offers programmes that have been traditionally male dominated, is much narrower with 44.7% of enrolment in that institution. The typical sex-segregation is, however, very evident with males dominating in the fields of Building, Architecture, Computer Studies and Engineering and females in Business Administration, Hospitality and Food Science, Pharmacy and Health Science and Education and Liberal Studies.

The rigid sex-segregation of technical-vocational subject areas is partly due, no doubt, to prevailing gender ideologies about sex-appropriate roles and activities as well as teacher, parental and peer influence. However, at the secondary level, school related factors such as cross timetabling and the existence of single sex institutions where, only the appropriate sex-linked subjects are available, are also factors that constrain the cross over of either sex into non-traditional areas.

6. Gender differentials in performance

Success in examinations or performance is another indicator that can be used to assess the extent to which both sexes are benefiting from the educational process. Any judgment about performance indicators in relation to gender equity, however, has to be made in relation to the socio-cultural environment and the socio-economic value of certification to either sex.

Differences in performance, which favour females, are evident from the primary level. At this level there is a National Assessment Programme (NAP), which monitors students' learning through the years of primary schooling at four grade levels: Grade 1 Readiness Test, Grade 3 Diagnostic Test, Grade 4 Literacy Test and The Grade 6 Achievement Test (GSAT).

An analysis of results for the four areas of the 1998 Grade 1 Readiness Test³⁵ (visual-motor coordination, visual perception, auditory perception and number and letter knowledge) showed that, at that time, girls performed better than boys in all four areas and that the difference was statistically significant in three of the areas: visual and auditory perception and number and letter knowledge.

Data for 2000/2001 show that on the Grade 4 Literacy Test which assesses competence in word recognition, reading, comprehension and writing 36% of males were graded as being 'at risk', 32% as 'uncertain' and 32% as 'not at risk'. Girls, however, performed at a much higher standard with 17%, 27% and 56% classified in the three corresponding categories.

Similar gender differences trends are reported for the GSAT. Although the national average on all components of the test are below a desired level, the average for girls was higher than that for boys in four of the five areas (Mathematics, Science, Social Studies and Language) tested, and, contrary, to the expected norm boys obtained a higher average on Communication Tasks than did girls (See Table 9).

In spite of the fact that there have been successive reforms aimed at creating a free flow of students from Grade 1 through to 9, the secondary level system continues to be

differentiated on the basis of quality and resources. Performance in this examination therefore determines placement of students in the different types of secondary level institutions. Highest scoring students are placed in the original ‘Traditional Grammar’ Schools and lower performing students are in All-Age schools. Data presented in an earlier section showed that these schools are populated by a higher percentage of boys than girls reflecting the overall better performance of females on this examination.

At Grade 9, the exit point, for students in All-Age schools, there is a further selection of students for Grade 10 places in Secondary High Schools through the Grade 9 Achievement Test (GNAT). In the 2000/2001 year 4 959 students sat this examination and boys accounted for the larger share of the entrants (58.3%). Of the number entered, 32 655 (53.5%) were awarded places of which 1, 324 (49.9%) were boys and 1 331 (50.1%) were girls.

Table 9: Grade 6 Achievement Test (GSAT) National Mean Scores by Sex, 2000/2001

Subject	No. of Candidates	National Average
Mathematics	46 404	52
Male	22 651	47
Female	23 753	56
Science	46 424	55
Male	22 659	51
Female	23 765	59
Social Studies	46 424	57
Male	22 666	52
Female	23 758	62
Language	46 433	57
Male	22 666	51
Female	23 767	63
Communication Task	46 414	8⁴
Male	22 653	9
Female	23 761	8

Source: Jamaica Education Statistics 2000-2001. MOEY&C, Kingston, Jamaica.

⁴ All subjects are marked out of 100 points except for the Communication Task component which has a mean rating of 12.

The gender gap in achievement for the results of the 2001 CSEC, CXC examinations was calculated for each subject area using a formula provided by Gorard (2000)³⁶. This author points to the fact that the calculation of achievement gap indices must take into account patterns of entry for boys and girls, that is, the entry gap in each subject area. When this formula was applied, in the academic subject grouping achievement gaps favoured females in 13 of the 17 subjects examined. It is instructive to note, however, that the gap favoured males in 4 of the 10 science related subjects including Mathematics and in Biology which is usually regarded as a female domain. In the two Visual and Performing Arts subjects, achievement gaps favoured girls while in the technical-vocational subjects the gaps favoured boys in two of the eight female dominated subjects (Shorthand and Clothing and Textiles) and females in three of the males dominated subjects (Mechanical Engineering Technology, Woods and Electricity/Electronics) [See Table 7].

Of importance also is the impact of factors such as type of school on performance outcomes. An analysis of results for the 1997 sitting of the general proficiency academic subjects for Jamaican candidates³⁷ in relation to co-educational and single-sex schools, produced results which were of particular significance for females. In the co-educational setting, boys obtained the higher pass rate in nine of the sixteen subjects including six of the seven science subjects. However, when performance in single sex boys' schools was compared with that of single sex girls' schools, the pattern changed in favour of girls. In the all-female schools the pattern was reversed with girls having the higher pass rate in nine of the sixteen academic subjects including the six science subjects for which there were entries from all-boys schools.

These patterns give support to arguments, which raise doubts about the desirability of co-education particularly for girls. There are, therefore, some educators who call for single-sex schooling for girls as the best preparation for occupational assimilation. Noddings (1992)³⁸ cites the work of several North American researchers which suggest that single-sex schooling has advantages for females and that this arrangement engenders greater student satisfaction, higher educational aspirations, a stronger sense of commitment and

more desirable attitudes towards intellectual and social life. She, however, cites research which points to the fact that these positive effects are confined to females and that coeducation seems better for many males.

Studies also establish an interaction between sex and socio-economic status in determining educational outputs. Greene (1996)³⁹ suggests that in the absence of clear data which can be used to correlate educational performance with poverty status or social class assignment, the performance of students in different types of schools provide some indication of the relationship.

Based on Greene's guideline, Bailey (2000)⁴⁰ carried the analysis a step further and examined the interaction between socioeconomic status and sex as determinants of both participation and performance of Jamaican students from five school types in the 1999 CXC examinations, using school type as an indication of social class assignment. Studies in Jamaica have shown that these schools differ qualitatively and therefore generally cater to students from different social strata.

The analysis indicated that both sexes in the traditional high schools, which serve students from the higher socio-economic groups, had an advantage over students from the other four school types both in terms of participation and performance in the academic and technical-vocational subject groupings. In the 'working class' schools, there were much lower rates of participation and performance for both sexes. However, of note, is the fact that boys in the Comprehensive and Technical High schools obtained better results in the technical-vocational subjects and would therefore, on leaving school, be better equipped to move into more lucrative forms of work in both the formal and informal sectors of the labour market.

At the tertiary level, results for Jamaican undergraduate students at the Mona Campus of the University of the West Indies for 2001 (See Table 8) indicate that although numerically there were fewer males than females in all faculties, in terms of performance the rate of pass for males in the First Class Honours category was consistently better than that of females in all but one faculty. Overall, as a proportion of their group, a larger

percentage of females (6.6%) obtained degrees in this category than did males (5.8%). However at the level of faculty, rates for males were higher than that for females in Humanities (8.2:5.9%), Education (13.9:12.2%) and Social Sciences (4.9:4.4%) whereas females had a higher rate in Pure and Applied Sciences (13.5:5%).

Table 8: M/F Rates in First Class Honours Category, Mona Campus 2000/2001

Faculty	Male	Female	Total
Humanities	5 (8.2%)	20 (5.9%)	25
Education	5 (13.9%)	24 (12.2%)	29
Pure & Applied Scs.	5 (5%)	17 (13.5%)	23
Social Sciences	9 (4.9%)	26 (4.4%)	25
Total	24 (5.8%)	87 (6.6%)	111

Source: Office of Student Records, Mona Campus

Based on these trends in overall participation and performance at the secondary and tertiary levels in Jamaica and other Caribbean territories, Miller (2000)⁴¹ notes that

In the Caribbean, on average, girls start schooling earlier, attend school more regularly, drop out of school more infrequently, stay in school longer, and achieve higher levels of functional education at the end of schooling than boys.... Whatever progress was made in literacy in the Caribbean, women made more progress than men and, on the whole, are more literate than men. (p.47)

This focus on the quantitative gains that Jamaican women have made in education, however, masks the fact that when the situation is examined from a qualitative perspective these same females, because of where they are positioned in the school's curriculum, actually have less of a competitive advantage than their male counterparts, beyond school. Reliance on an analysis of quantitative data only on overall participation in school and examinations therefore does not give a true indication of the extent to which education promotes gender equality and equity. The distribution of the two sexes in the various fields of study is of more significance in a gender analysis.

These patterns suggest that the concern with males at the higher levels of the education systems has to do more with **under-participation** than with **underachievement**. A distinction therefore needs to be made between participation and performance because boys who remain in the system are performing creditably in the more critical science and technology areas.

This persistent sex-segregation of the curriculum, however, has serious consequences for both males and females. This pattern of segregation in the technical vocational fields of study not only has the effect of reproducing and reinforcing the sexual division of labour in the home but also influences occupational choices and ultimately contributes to and shapes occupational segregation of the labour market. Data on the employed labour force⁴² indicate that in the second quarter of 2001, 41.2% of all employed females was clustered in the 'clerks' and 'service workers and shop and market sales' occupational categories while males 33.3% of males were in the 'craft and related trades' and 'plant and machine operators and assemblers' categories. This pattern of occupational segregation is determined by the sex-segregation of the technical-vocational curriculum and results in females being clustered in the lowest paying sectors of the market and ultimately in women, on average, having lower incomes than men.

Even where women break into the higher paying occupational categories there is a 'glass ceiling' which obstructs the path of upwardly mobile women. Although women account for the larger share (58%) of persons in the top occupational category of 'professionals, senior officials and technicians', there is status stratification in this grouping with women over-represented in the lower strata at the level of middle management. They are therefore absent from board rooms and the highest levels of their organisations where decisions are taken and policy is determined (Rickettes & Benfield, 2000).⁴³

7. Teacher education

In Jamaica, for the most part, curricula for teacher training institutions is organized and managed through a central body, the Joint Board for Teacher Education. There is little evidence on the extent to which the content and methods of teacher training indicate

gender sensitivity or bias. A survey of teacher educators not only in Jamaica but also across the entire Caribbean region, however, showed that there was a lack of awareness among teacher educators with respect to the concept of gender and ways in which gender operates in the educational process and that this was not being addressed in teacher training institutions.

To address this, a module for teacher education, *Gender Issues in Caribbean Education*⁴⁴ has been developed by the CARICOM Secretariat in association with the Centre for Gender and Development Studies. It was envisioned that the development and use of such a module for teacher preparation would:

3. build awareness of gender and its impact on the education process and outcomes; and,
4. provide teachers with the knowledge and skills required to adopt and promote a gender-sensitive approach to instruction and all school related activities.

To achieve these objectives information presented in the module is divided into four sections. The focus on Unit 1 is on ways in which sex-appropriate behaviours and roles are acquired and the agents that contribute to the process. In Units 2 and 3 a range of quantitative and qualitative gender issues that impact on the educational process and their influence on curriculum planning, implementation, evaluation and student outcomes are explored. In the final Unit, implications for policy at the classroom and school levels are presented for consideration. The intention is that the module will be introduced in all teacher training institutions and that it will form the basis of a mandatory course for the pre-service preparation of teachers for all levels of the education system.

8. The male underachievement thesis

The data presented in this case study of gender and education in Jamaica clearly illustrate that females are much more highly represented at the higher levels of the education system and, overall, demonstrate higher levels of academic attainment. However, in spite of their 'overachievement' in the educational arena, as a group, women continue to be in a subordinate position in many spheres of Jamaican life and compared to men enjoy less economic and political power.

This therefore brings into question the 'male underachievement' thesis, which has garnered wide public acceptance. The common approach to an analysis of the situation of males in the educational arena has been based on inter group comparative analysis in relation to a relative standard which correctly leads to the conclusion of male underachievement. This comparison, however, would only be valid if society had a single educational standard against which both males and females are judged in competing for benefits and resources in the wider social arena. This, however, is not the case.

This approach to the problem and the resultant explanation of male underachievement therefore needs to be challenged and, in fact, is invalid because society obviously has different expectations for males and females in terms of the social currency of certification. The underachievement of males in the educational arena has not resulted in parallel underachievement in the economic and political spheres. Women obviously require higher levels of attainment if they are to be as competitive for jobs, equal remuneration, decision-making positions and access to an equal share of productive resources.

In assessing the socio-economic predictive value of education for either sex, an intra group analysis against an absolute standard is more applicable given the accepted sex-differentiated norms and standards of societal gender systems. The functioning of a double standard has, in fact, been confirmed by a 1995 Study carried out by the Economic Commission for Latin America and the Caribbean (ECLAC)⁴⁵ which shows that in this region women need to have four more years of schooling in order to compete for salaries similar to those of men.

Research carried out by local researchers throws further light on this matter. They postulate that this need for girls to achieve higher levels of attainment is reinforced in the home where greater protection is given to girls than to boys and where girls more so than boys are encouraged to do well in school (Figueroa and Handa, 1996).⁴⁶ Parental attention to girls and their schooling is not only driven by tacit agreement that 'it is a

man's world' and a recognition that in Jamaican society the rules of the game are different for the two sexes but also by fear of early pregnancy which is now more heightened with the growing threat of HIV/AIDS among the adolescent population and particularly among girls.

Another factor that has contributed to increase female participation in higher education not only in Jamaica and the Caribbean but also in many other countries has been the global influence of UN international conferences at which concerns of gender equality and women's empowerment have been addressed. At many of these conferences, education has been promoted as the vehicle for achieving the goal of gender equality and empowering women to participate more fully in the development process. This notion that education can be used as the vehicle for empowering women to be equal partners with men in the economic, political and socio-cultural spheres of life as well as in decision-making is therefore highlighted in a number of outcome documents, which Governments endorse and ratify.

Whereas there is evidence in Jamaica and the wider Caribbean that educating women has resulted in improvement in the quality of their lives and therefore improvement in national survival statistics such as fertility rates, rate of infant and maternal mortality, the assumption that increased participation and performance in education equip women to 'advance their rights and fend off multiple forms of discrimination' has to be critically assessed in relation to the Caribbean context and Caribbean realities.

9. A final comment

The main concern in this study has been on sex stratification in the education system and the impact of gender on the educational process and to a lesser extent on the impacts of social class assignment. A recent pilot study⁴⁷ has shown, however, that there are not only within school differences based on sex stratification but there are marked between school differences based on social class stratification. There is therefore a clear intersection of sex and class and the position and status of individuals in the social system of schools is a function of both factors.

The research agenda therefore needs to be elaborated to not only examine the intersection of sex and social class but also race and ethnicity all of which constitute hierarchies which determine life chances. This, no doubt, would result in a better understanding of the combined effects of these variables on access to the school's material and non-material resources and to educational outputs and ultimate social outcomes.

Appendix 1

Figure 1: Enrolment at Primary Level by Sex

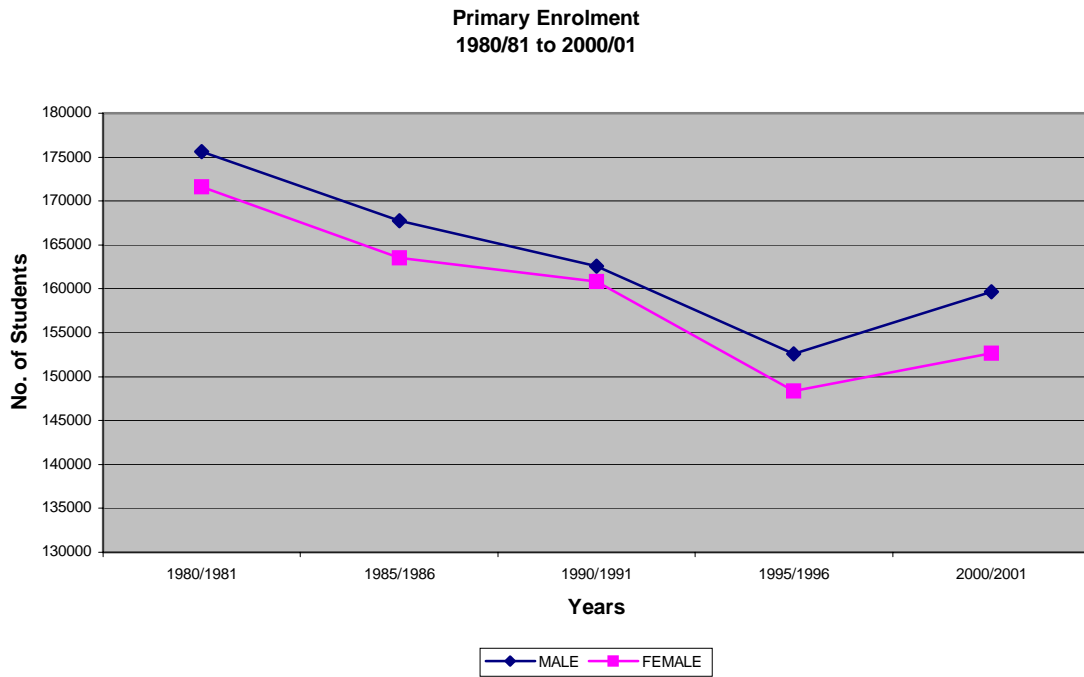


Figure 2: Enrolment at Secondary Level by Sex

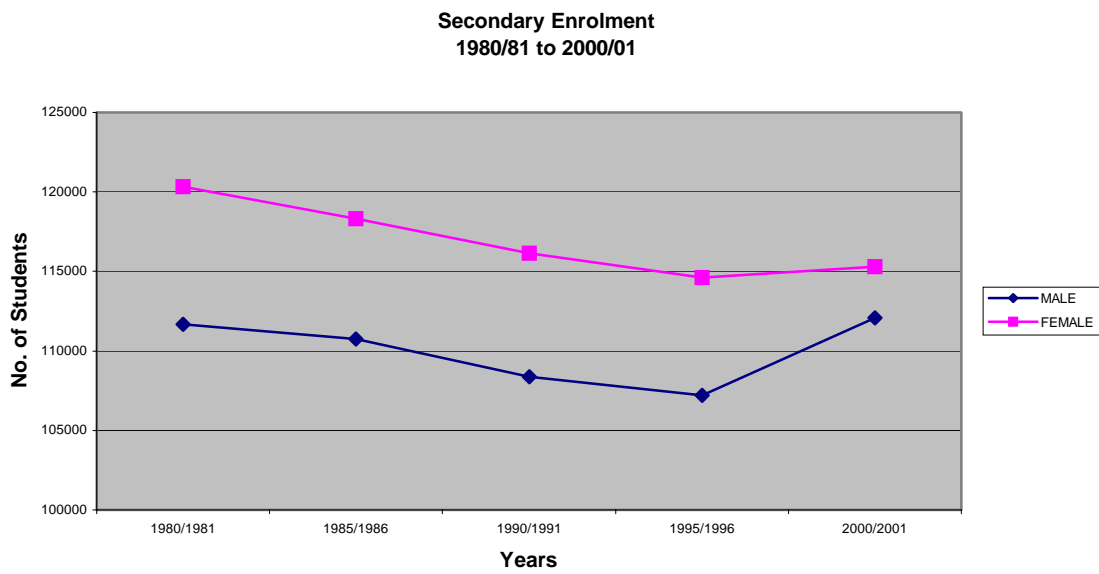
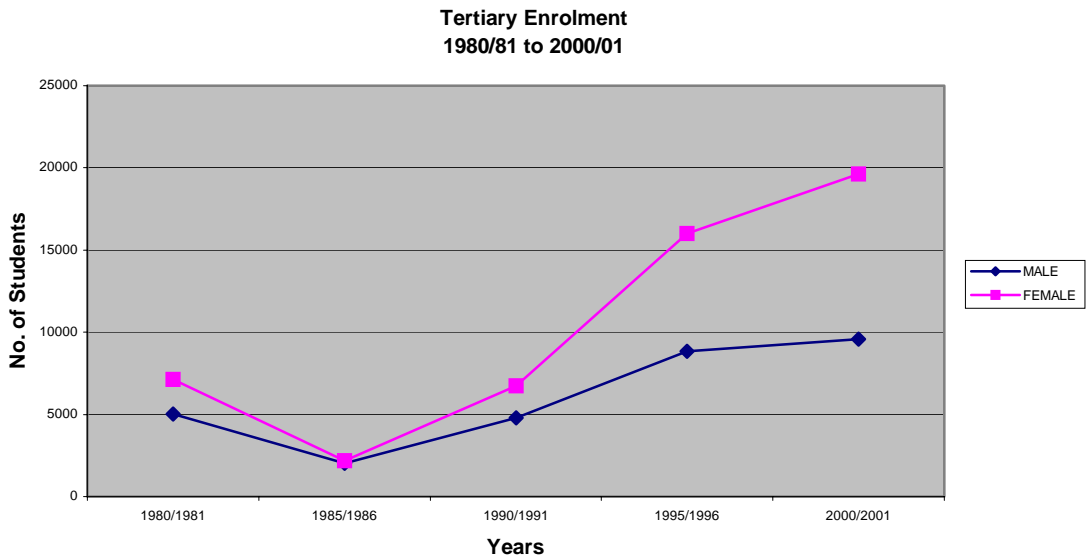


Figure 3: Enrolment at Tertiary Level by Sex



Appendix 2

Figure 1: Secondary Level Enrolment by School Type and Sex (All-Age)

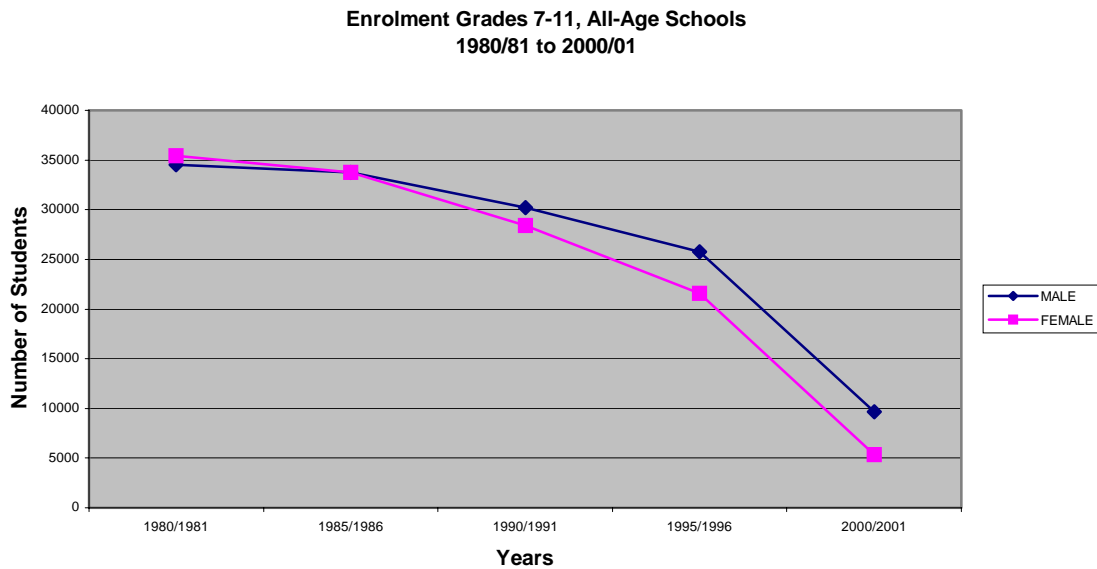
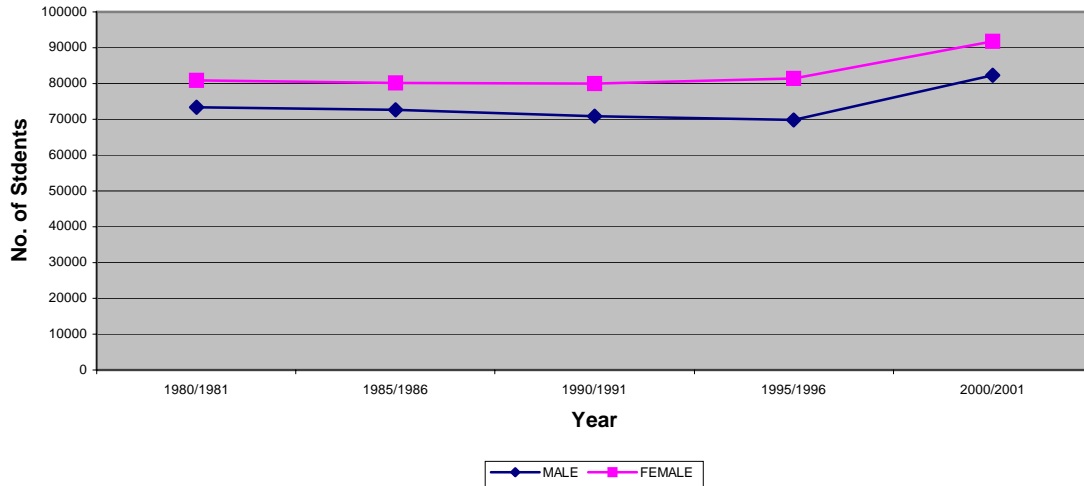


Figure 2: Secondary Enrolment by School type and Sex

(Secondary High)

**Secondary High Enrolment
1980/81 to 2000/01**



**Figure 3: Secondary Enrolment by School Type and Sex
(Technical High Schools)**

Technical High School Enrolment

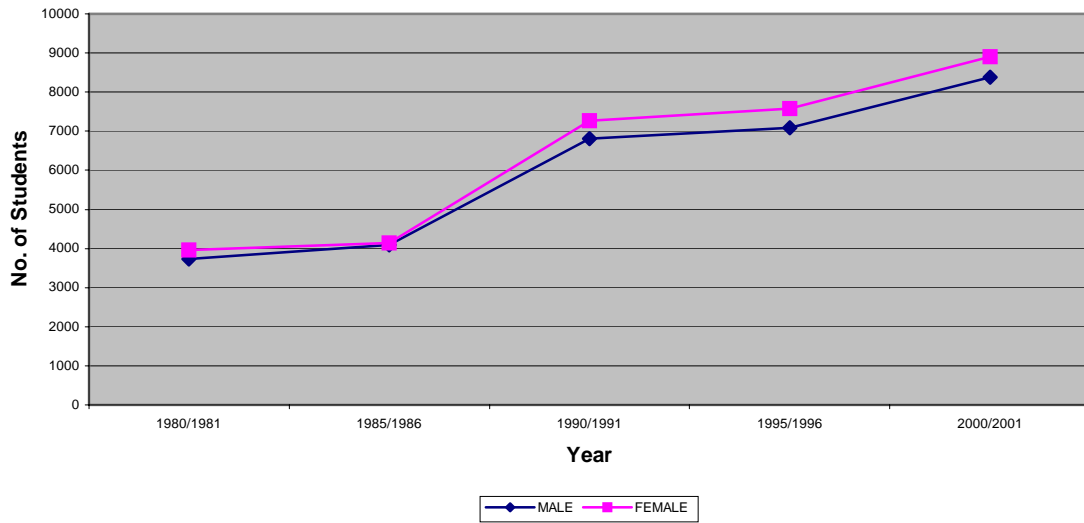


Figure 3.1 Grade 10 Enrolment by Sex, 1980/81 to 2000/01

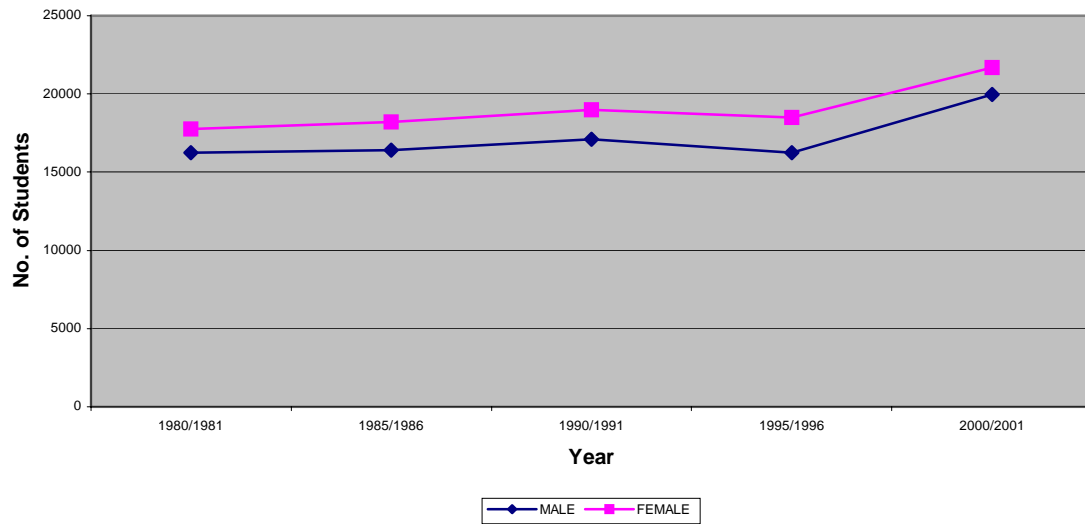


Fig. 3.2: Grade 11 Enrolment by Sex, 1980/01 to 2000/01

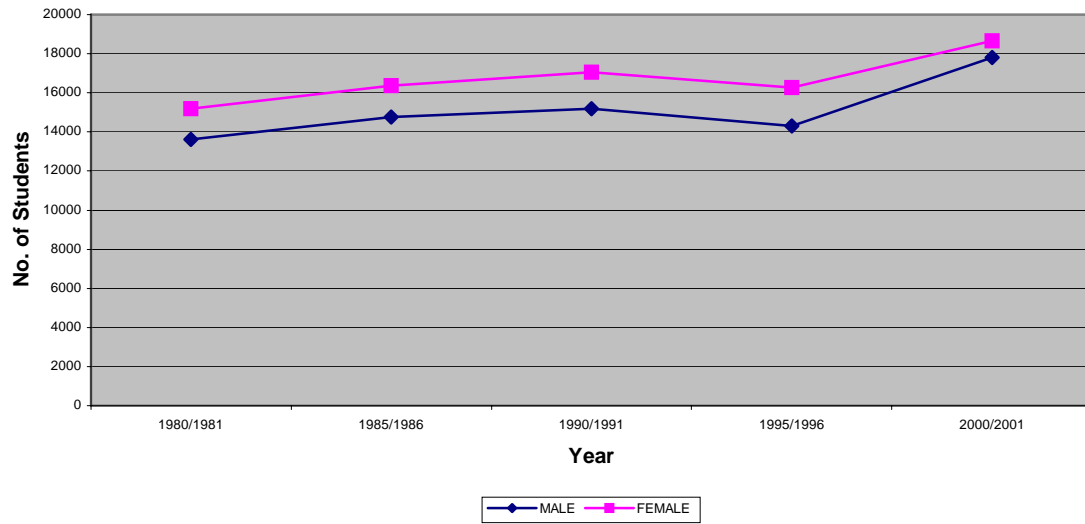


Fig. 3.3: Grade 12 Enrolment by Sex, 1980/81 to 2000/01

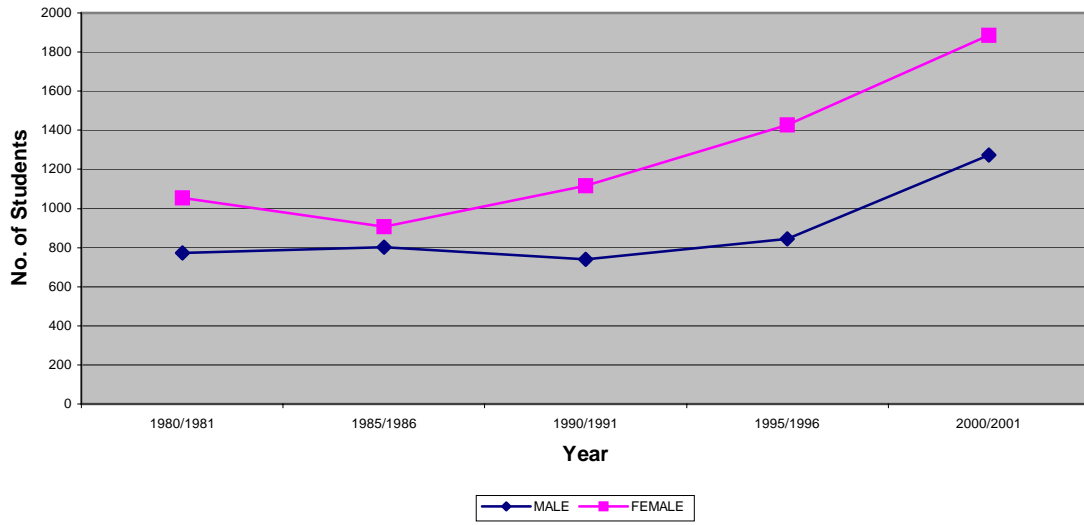
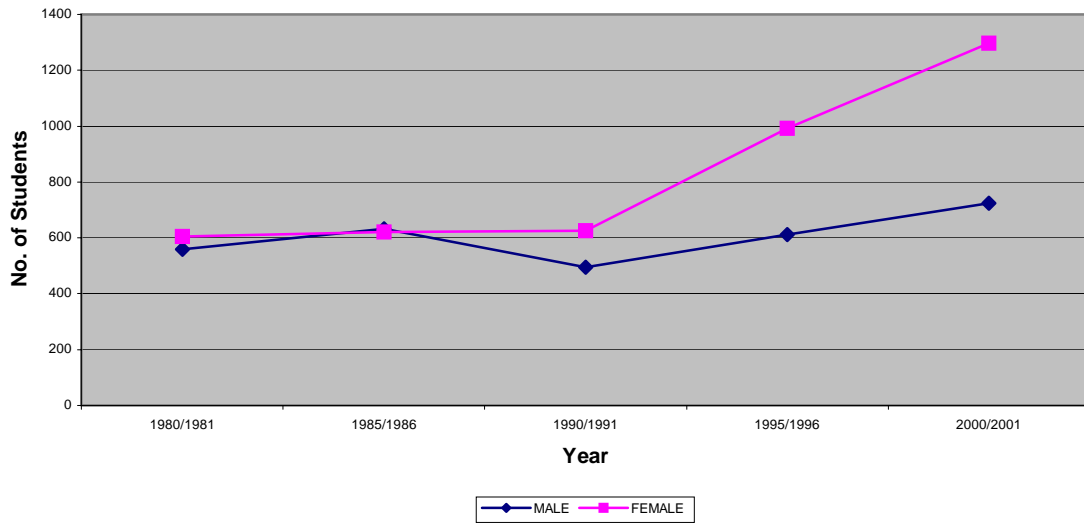


Fig.3.4: Grade 13 Enrolment by Sex, 1980/81 to 2000/01



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CARIBBEAN EXAMINATIONS COUNCIL (2000 / 2001)

Number of Public School Candidates sitting at the General and Technical Proficiency Level by Sex - Entry and Gender Gaps

Category	Subjects	Entries			Number gaining grades 1- 3			Entry Gap	Gender Gap
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		
SCIENCE	Agricultural Science (DbI)	81	233	314	61	191	252	48,41	3,18
	Agricultural Science (Sgl)	239	322	561	219	295	514	14,80	-0,01
	Agricultural Science (C&S)	190	292	482	171	270	441	21,16	1,29
	Biology	1081	2529	3610	617	1314	1931	40,11	-4,02
	Chemistry	952	1517	2469	398	651	1049	22,88	1,23
	Geography	1727	1974	3701	989	1242	2231	6,67	4,67
	Information Technology	1446	2443	3889	1301	2257	3558	25,64	1,23
	Integrated Science	882	1939	2821	750	641	1391	37,47	-45,31
	Mathematics	6582	9976	16558	2014	3000	5014	20,50	-0,83
Physics	1431	1071	2502	557	529	1086	-14,39	11,81	
HUMANITIES	Caribbean History	1539	3283	4822	972	2296	3268	36,17	4,35
	English Language (A)	7090	11678	18768	3433	7439	10872	24,45	12,40
	English Literature (B)	1758	5065	6823	657	2671	3326	48,47	12,05
	Religious Education	622	1247	1869	510	1109	1619	33,44	3,56
	Spanish	621	1925	2546	395	1308	1703	51,22	2,39
	French	106	403	509	63	249	312	58,35	1,27
	Social Studies	2392	4812	7204	1560	3634	5194	33,59	6,34
ARTS	Visual Arts	991	757	1748	733	592	1325	-13,39	2,75
	Music	18	24	42	6	12	18	14,29	19,05
BUSINESS	Office Procedures	725	2759	3484	608	2370	2978	58,38	0,79
	Principles of Accounts	1843	4462	6305	961	2719	3680	41,54	6,23
	Principles of Business	2135	4935	7070	1624	3776	5400	39,60	0,25
	Shorthand	3	89	92	2	30	32	93,48	-5,98
	Typewriting	295	1722	2017	97	602	699	70,75	1,50

CARIBBEAN EXAMINATIONS COUNCIL (2000 / 2001)

Number of Public School Candidates sitting at the General and Technical Proficiency Level by Sex - Entry and Gender Gaps

Category	Subjects	Entries			Number gaining grades 1- 3			Entry Gap	Gender Gap
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		
Home Economics	Clothing and Textiles	41	1171	1212	37	1018	1055	93,23	-0,25
	Food and Nutrition	404	2813	3217	296	2374	2670	74,88	2,94
	Home Economic Management	234	2079	2313	202	1841	2043	79,77	0,46
TECHNICAL	Mechanical Engineering Tech.	286	9	295	201	3	204	-93,90	-3,16
	Metals	441	18	459	379	17	396	-92,16	0,74
	Technical Drawing	2653	297	2950	2010	228	2238	-79,86	0,24
	Woods	763	30	793	662	25	687	-92,43	-0,29
	Building Technology	303	30	333	244	25	269	-81,98	0,57
	Electrical Technology	720	66	786	491	51	542	-83,21	2,03
	Electricity/Electronics	861	78	939	668	51	719	-83,39	-2,43

CARIBBEAN EXAMINATIONS COUNCIL (2000 / 2001)

Number of Public School Candidates sitting at the General and Technica Proficiency Level by Sex - Entry and Gender Gaps

Category	Subjects	Entries			Number gaining grades 1- 3			% gaining grades 1 - 3	Number gaining grade 4			Entry Gap	Gender Gap Grades 1 - 3	Gender Gap Grade 4
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		Boys	Girls	TOTAL			
SCIENCE	Agricultural Science (Dbl)	81	233	314	61	191	252	80,25	16	34	50	48,41	3,18	-12,41
	Agricultural Science (Sgl)	239	322	561	219	295	514	91,62	19	21	40	14,80	-0,01	-9,80
	Agricultural Science (C&S)	190	292	482	171	270	441	91,49	13	18	31	21,16	1,29	-5,03
	Biology	1081	2529	3610	617	1314	1931	53,49	323	779	1102	40,11	-4,02	1,27
	Chemistry	952	1517	2469	398	651	1049	42,49	259	443	702	22,88	1,23	3,33
	Geography	1727	1974	3701	989	1242	2231	60,28	550	520	1070	6,67	4,67	-9,48
	Information Technology	1446	2443	3889	1301	2257	3558	91,49	119	150	269	25,64	1,23	-14,11
	Integrated Science	882	1939	2821	750	641	1391	49,31	123	264	387	37,47	-45,31	-1,03
	Mathematics	6582	9976	16558	2014	3000	5014	30,28	1500	2307	3807	20,50	-0,83	0,70
Physics	1431	1071	2502	557	529	1086	43,41	532	389	921	-14,39	11,81	-1,14	
HUMANITIES	Caribbean History	1539	3283	4822	972	2296	3268	67,77	435	768	1203	36,17	4,35	-8,49
	English Language (A)	7090	11678	18768	3433	7439	10872	57,93	2120	2748	4868	24,45	12,40	-11,55
	English Literature (B)	1758	5065	6823	657	2671	3326	48,75	472	1251	1723	48,47	12,05	-3,26
	Religious Education	622	1247	1869	510	1109	1619	86,62	97	127	224	33,44	3,56	-20,05
	Spanish	621	1925	2546	395	1308	1703	66,89	141	442	583	51,22	2,39	0,41
	French	106	403	509	63	249	312	61,30	31	117	148	58,35	1,27	-0,24
	Social Studies	2392	4812	7204	1560	3634	5194	72,10	579	828	1407	33,59	6,34	-15,90
Arts	Visual Arts	991	757	1748	733	592	1325	75,80	220	142	362	-13,39	2,75	-8,16
	Music	18	24	42	6	12	18	42,86	3	4	7	14,29	19,05	0,00
BUSINESS	Office Procedures	725	2759	3484	608	2370	2978	85,48	103	333	436	58,38	0,79	-5,63
	Principles of Accounts	1843	4462	6305	961	2719	3680	58,37	534	1230	1764	41,54	6,23	-2,08
	Principles of Business	2135	4935	7070	1624	3776	5400	76,38	379	835	1214	39,60	0,25	-2,04
	Shorthand	3	89	92	2	30	32	34,78	0	32	32	93,48	-5,98	6,52
	Typewriting	295	1722	2017	97	602	699	34,66	113	710	823	70,75	1,50	1,79
Home Econ.	Clothing and Textiles	41	1171	1212	37	1018	1055	87,05	3	138	141	93,23	-0,25	2,51
	Food and Nutrition	404	2813	3217	296	2374	2670	83,00	89	378	467	74,88	2,94	-13,00
	Home Ec. Management	234	2079	2313	202	1841	2043	88,33	30	227	257	79,77	0,46	-3,11

CARIBBEAN EXAMINATIONS COUNCIL (2000 / 2001)

Number of Public School Candidates sitting at the General and Technica Proficiency Level by Sex - Entry and Gender Gaps

Category	Subjects	Entries			Number gaining grades 1- 3			% candidate s gaining 1 - 3	Number gaining grade 4			Entry Gap	Gender Gap Grades 1 - 3	Gender Gap Grade 4
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		Boys	Girls	TOTAL			
TECHNICAL	Mechanical Engineering Tech	286	9	295	201	3	204	69,15	71	6	77	-93,90	-3,16	9,48
	Metals	441	18	459	379	17	396	86,27	56	1	57	-92,16	0,74	-4,33
	Technical Drawing	2653	297	2950	2010	228	2238	75,86	580	64	644	-79,86	0,24	-0,26
	Woods	763	30	793	662	25	687	86,63	79	5	84	-92,43	-0,29	4,34
	Building Technology	303	30	333	244	25	269	80,78	44	4	48	-81,98	0,57	-1,35
	Electrical Technology	720	66	786	491	51	542	68,96	217	12	229	-83,21	2,03	-6,31
	Electricity/Electronics	861	78	939	668	51	719	76,57	170	26	196	-83,39	-2,43	9,92

CARIBBEAN EXAMINATIONS COUNCIL (2000/2001)

Number of Public School Candidates sitting at the General and Technical Proficiency Level by Sex - Entry and Gender Gaps

Category	Subjects	Entries			Number gaining grades 1-3			% gaining grades 1-3	Number gaining grade 4			% gaining grade 4	Entry Gap	Gender Gap Grades 1-3	Gender Gap Grade 4
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		Boys	Girls	TOTAL				
SCIENCE	Agricultural Science (DbI)	81	233	314	61	191	252	80,25	16	34	50	15,92	48,41	3,18	-12,41
	Agricultural Science (Sgl)	239	322	561	219	295	514	91,62	19	21	40	7,13	14,80	-0,01	-9,80
	Agricultural Science (C&S)	190	292	482	171	270	441	91,49	13	18	31	6,43	21,16	1,29	-5,03
	Biology	1081	2529	3610	617	1314	1931	53,49	323	779	1102	30,53	40,11	-4,02	1,27
	Chemistry	952	1517	2469	398	651	1049	42,49	259	443	702	28,43	22,88	1,23	3,33
	Geography	1727	1974	3701	989	1242	2231	60,28	550	520	1070	28,91	6,67	4,67	-9,48
	Information Technology	1446	2443	3889	1301	2257	3558	91,49	119	150	269	6,92	25,64	1,23	-14,11
	Integrated Science	882	1939	2821	750	641	1391	49,31	123	264	387	13,72	37,47	-45,31	-1,03
	Mathematics	6582	9976	16558	2014	3000	5014	30,28	1500	2307	3807	22,99	20,50	-0,83	0,70
Physics	1431	1071	2502	557	529	1086	43,41	532	389	921	36,81	-14,39	11,81	-1,14	
HUMANITIES	Caribbean History	1539	3283	4822	972	2296	3268	67,77	435	768	1203	24,95	36,17	4,35	-8,49
	English Language (A)	7090	11678	18768	3433	7439	10872	57,93	2120	2748	4868	25,94	24,45	12,40	-11,55
	English Literature (B)	1758	5065	6823	657	2671	3326	48,75	472	1251	1723	25,25	48,47	12,05	-3,26
	Religious Education	622	1247	1869	510	1109	1619	86,62	97	127	224	11,99	33,44	3,56	-20,05
	Spanish	621	1925	2546	395	1308	1703	66,89	141	442	583	22,90	51,22	2,39	0,41
	French	106	403	509	63	249	312	61,30	31	117	148	29,08	58,35	1,27	-0,24
	Social Studies	2392	4812	7204	1560	3634	5194	72,10	579	828	1407	19,53	33,59	6,34	-15,90
Arts	Visual Arts	991	757	1748	733	592	1325	75,80	220	142	362	20,71	-13,39	2,75	-8,16
	Music	18	24	42	6	12	18	42,86	3	4	7	16,67	14,29	19,05	0,00
BUSINESS	Office Procedures	725	2759	3484	608	2370	2978	85,48	103	333	436	12,51	58,38	0,79	-5,63
	Principles of Accounts	1843	4462	6305	961	2719	3680	58,37	534	1230	1764	27,98	41,54	6,23	-2,08
	Principles of Business	2135	4935	7070	1624	3776	5400	76,38	379	835	1214	17,17	39,60	0,25	-2,04
	Shorthand	3	89	92	2	30	32	34,78	0	32	32	34,78	93,48	-5,98	6,52
	Typewriting	295	1722	2017	97	602	699	34,66	113	710	823	40,80	70,75	1,50	1,79

CARIBBEAN EXAMINATIONS COUNCIL (2000/2001)

Number of Public School Candidates sitting at the General and Technical Proficiency Level by Sex - Entry and Gender Gaps

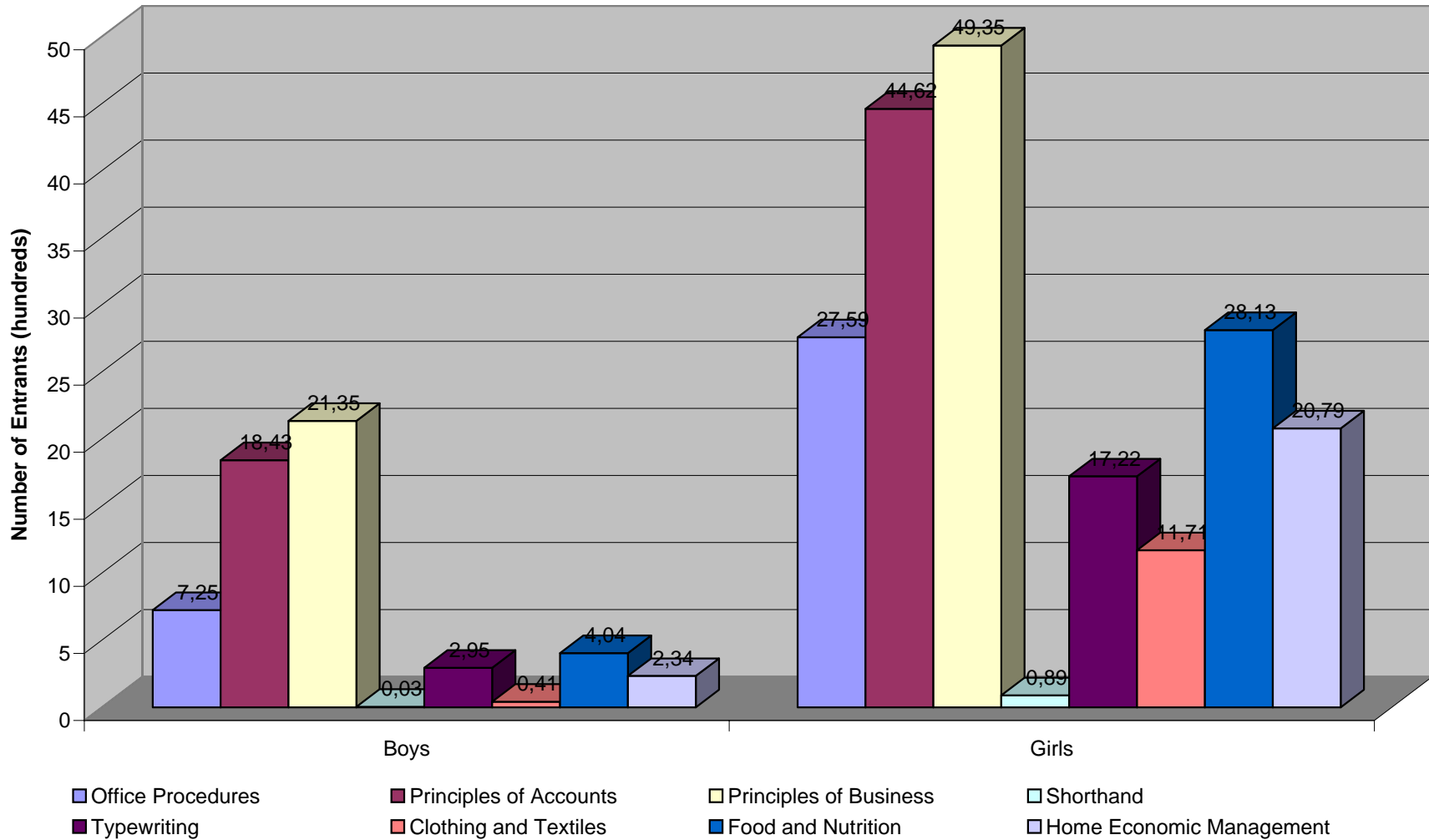
Category	Subjects	Entries			Number gaining grades 1-3			% gaining grades 1-3	Number gaining grade 4			% gaining grade 4	Entry Gap	Gender Gap Grades 1-3	Gender Gap Grade 4
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		Boys	Girls	TOTAL				
Home Econ.	Clothing and Textiles	41	1171	1212	37	1018	1055	87,05	3	138	141	11,63	93,23	-0,25	2,51
	Food and Nutrition	404	2813	3217	296	2374	2670	83,00	89	378	467	14,52	74,88	2,94	-13,00
	Home Ec. Management	234	2079	2313	202	1841	2043	88,33	30	227	257	11,11	79,77	0,46	-3,11
TECHNICAL	Mech Eng Tech.	286	9	295	201	3	204	69,15	71	6	77	26,10	-93,90	-3,16	9,48
	Metals	441	18	459	379	17	396	86,27	56	1	57	12,42	-92,16	0,74	-4,33
	Technical Drawing	2653	297	2950	2010	228	2238	75,86	580	64	644	21,83	-79,86	0,24	-0,26
	Woods	763	30	793	662	25	687	86,63	79	5	84	10,59	-92,43	-0,29	4,34
	Building Technology	303	30	333	244	25	269	80,78	44	4	48	14,41	-81,98	0,57	-1,35
	Electrical Technology	720	66	786	491	51	542	68,96	217	12	229	29,13	-83,21	2,03	-6,31
	Electricity/Electronics	861	78	939	668	51	719	76,57	170	26	196	20,87	-83,39	-2,43	9,92

Category	Subjects	Entries			Number gaining grades 1- 3			Entry Gap	Gender Gap
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		
SCIENCE	Agricultural Science (DbI)	81	233	314	61	191	252	48,41	3,18
	Agricultural Science (Sgl)	239	322	561	219	295	514	14,80	-0,01
	Agricultural Science (C&S)	190	292	482	171	270	441	21,16	1,29
	Biology	1081	2529	3610	617	1314	1931	40,11	-4,02
	Chemistry	952	1517	2469	398	651	1049	22,88	1,23
	Geography	1727	1974	3701	989	1242	2231	6,67	4,67
	Information Technology	1446	2443	3889	1301	2257	3558	25,64	1,23
	Integrated Science	882	1939	2821	750	641	1391	37,47	-45,31
	Mathematics	6582	9976	16558	2014	3000	5014	20,50	-0,83
Physics	1431	1071	2502	557	529	1086	-14,39	11,81	
HUMANITIES	Caribbean History	1539	3283	4822	972	2296	3268	36,17	4,35
	English Language (A)	7090	11678	18768	3433	7439	10872	24,45	12,40
	English Literature (B)	1758	5065	6823	657	2671	3326	48,47	12,05
	Religious Education	622	1247	1869	510	1109	1619	33,44	3,56
	Spanish	621	1925	2546	395	1308	1703	51,22	2,39
	French	106	403	509	63	249	312	58,35	1,27
	Social Studies	2392	4812	7204	1560	3634	5194	33,59	6,34
ARTS	Visual Arts	991	757	1748	733	592	1325	-13,39	2,75
	Music	18	24	42	6	12	18	14,29	19,05

Category	Subjects	Entries			Number gaining grades 1- 3			Entry Gap	Gender Gap
		Boys	Girls	TOTAL	Boys	Girls	TOTAL		
BUSINESS	Office Procedures	725	2759	3484	608	2370	2978	58,38	0,79
	Principles of Accounts	1843	4462	6305	961	2719	3680	41,54	6,23
	Principles of Business	2135	4935	7070	1624	3776	5400	39,60	0,25
	Shorthand	3	89	92	2	30	32	93,48	-5,98
	Typewriting	295	1722	2017	97	602	699	70,75	1,50
Domestic Crafts	Clothing and Textiles	41	1171	1212	37	1018	1055	93,23	-0,25
	Food and Nutrition	404	2813	3217	296	2374	2670	74,88	2,94
	Home Economic Management	234	2079	2313	202	1841	2043	79,77	0,46
TECHNICAL	Mechanical Engineering Tech.	286	9	295	201	3	204	-93,90	-3,16
	Metals	441	18	459	379	17	396	-92,16	0,74
	Technical Drawing	2653	297	2950	2010	228	2238	-79,86	0,24
	Woods	763	30	793	662	25	687	-92,43	-0,29
	Building Technology	303	30	333	244	25	269	-81,98	0,57
	Electrical Technology	720	66	786	491	51	542	-83,21	2,03
	Electricity/Electronics	861	78	939	668	51	719	-83,39	-2,43

Category	Subjects	Entries				Number gaining grades 1- 3			Entry Gap	Gender Gap
		Boys	Girls		TOTAL	Boys	Girls	TOTAL		
BUSINESS	Subjects	Boys	Girls							
	Office Procedures	7,25	27,59		3484	608	2370	2978	58,38	0,79
	Principles of Accounts	18,43	44,62		6305	961	2719	3680	41,54	6,23
	Principles of Business	21,35	49,35		7070	1624	3776	5400	39,60	0,25
	Shorthand	0,03	0,89		92	2	30	32	93,48	-5,98
	Typewriting	2,95	17,22		2017	97	602	699	70,75	1,50
Domestic Crafts	Clothing and Textiles	0,41	11,71		1212	37	1018	1055	93,23	-0,25
	Food and Nutrition	4,04	28,13		3217	296	2374	2670	74,88	2,94
	Home Economic Management	2,34	20,79		2313	202	1841	2043	79,77	0,46
	Subjects	Boys	Girls							
TECHNICAL	Mechanical Engineering Tech.	2,86	0,09		295	201	3	204	-93,90	-3,16
	Metals	4,41	0,18		459	379	17	396	-92,16	0,74
	Technical Drawing	26,53	2,97		2950	2010	228	2238	-79,86	0,24
	Woods	7,63	0,3		793	662	25	687	-92,43	-0,29
	Building Technology	3,03	0,3		333	244	25	269	-81,98	0,57
	Electrical Technology	7,2	0,66		786	491	51	542	-83,21	2,03
	Electricity/Electronics	8,61	0,78		939	668	51	719	-83,39	-2,43

**Caribbean Examinations Council (2000/2001)
Entries for Business Studies and Domestic Crafts - by Sex**



Caribbean Examinations Council (2000/2001)
Entries for Technical Studies - by Sex

