## MAPPING UNATTACHED YOUTH IN JAMAICA

Report prepared for IADB

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#### **EXECUTIVE SUMMARY**

#### I. Introduction

The Government of Jamaica plans to implement a Youth Development Program whose main objective is to reduce the number of poor unattached youth by facilitating their re-entry into the education system (formal or non-formal), the training system, or the labor market. Under the project a package of services comprised of remedial education, training, and socialization will delivered to unattached youth. The objective of this report is to provide a detailed profile and mapping of unattached youth for the future loan operation. The specific objectives are:

- 1. To provide information on the number and characteristics of unattached youth in order to assist in the design of appropriate interventions to address the main skill deficiencies among this group.
- 2. To describe the range of skills and qualifications of unattached youth in the target age group
- 3. To map skill levels to education and training opportunities.

#### II. METHOD

This study utilized secondary data from national surveys, complemented with institutional data from educational agencies. The national survey datasets were:

The Survey of Living Conditions, the Jamaica National Literacy Survey and the Labour Force Survey. National estimates of the unattached youth were obtained using the Demographic Statistics Reports (STATIN) and applying the appropriate percentages obtained from the survey data. However, the Literacy Survey was already weighted to provide national estimates.

Education statistics and information from the Caribbean Examination Council were also analysed to complement the survey data. Information included enrolment at various grades of the education system, achievement and placement at grades 6 and 9, and CXC results.

To determine what educational and training opportunities were currently available and planned, key informant interviews were held with persons from agencies involved in the development and delivery of educational and training courses. Available data were collected on capacity of the relevant institutions, levels of instruction, intakes, rejection rates and reasons for rejection.

#### III. FINDINGS

- 1. Between 24 and 34 percent of youths were unattached over the period 1998 and 2001, and this translates into 114500 -163000 youths, with an average of 141,744.
- 2. Consistently more of these youths were females and this is explained by the higher levels of unemployment among females in the population as a whole. Over the period 1998-2001, the male:female differences narrowed and this was mainly due to more females being in school, although there have been reports of increased employment of females as a result of the HEART/NTA programme.
- 3. Just over half of the unattached youths can be found in rural areas. An examination of level of education and employment levels by area of residence in 2001, revealed that educational attainment and achievement of the rural youth was significantly lower than the urban youths but level of unemployment was similar in the three areas.
- 4. One quarter of unattached youths lived below the poverty line, while about one-half lived in female-headed households. The mean household size of 6 persons is higher than the national average of 4 persons.
- 5. Generally, the educational level of the household heads was lower than that of the youths, 60-70% having attained grade 9 or less of education (c.f. 25% of the unattached youths).
- 6. There were significant differences between the attached and unattached in terms of gender and educational level of the household head, and poverty status. Significantly more unattached youths lived below the poverty line, in households headed by females, and/or with heads with lower educational levels. Also mean household size of the unattached youth was significantly larger than that of attached youths. However, there was no difference in area of residence.
- 7. About a quarter of unattached youths attained only a grade 9 level or less of education. Very few i.e. less that five percent, had tertiary education. The majority had little qualifications, with over 70% having achieved only the equivalent of CXC at basic level or no qualifications at all.
- 8. The literacy survey showed that over 30% of unattached youths with a grade 9 education or less, were illiterate. These findings are corroborated by statistics from the Ministry of Education, Youth and Culture that show that 32% of children were deemed 'at-risk' at the grade 4 level.
- 9. There were notable differences between the attached and unattached in terms of gender, literacy levels and educational level attained (highest level of education reached), but there were no differences in age group, area of residence or examinations passed.
- 10. While recognizing the value of targeting the unattached youth for education and skills training, it is important that the unskilled, but

employed youth should also be targeted. In 2001, 58% of the employed youths reported having no skill, and of those, 43% stated that they would like to learn a skill. For 2001, the estimated size of that group of youths is 65,500 persons.

11. The table below summarises estimated number of unattached youths 15-24 years.

	Number of unattached youths (SLC) <sup>a</sup>	Number of illiterate unattached youth – literacy survey		
Total	141744	24495		
Male	56452	18910		
Female	85292	6090		
Age group years				
15-19	68182	12450		
20-24	73562	11530		
KMA	37485	2810		
Other towns	24501	2275		
Rural	79758	21050		
Highest educational level Gr. 9 or				
less	32959	20270		
No. without CXC general proficiency	108893	24495		
Estimated no. of youths who left school system by end of gr. 9 b	34170 - 55110			
Estimated no. youths who left school system at gr. 11 without any qualifications <sup>b</sup>	49640 – 82230			

- 12. The main educational/training programmes for unattached youths are:
  - i) HEART/NTA that offers a variety of training opportunities to youths with at least a grade 9 level of competency and the estimated stock of unattached youths for that programme is 44873.
  - ii) JAMAL that provides basic literacy and numeracy skills to the grade 6 level. It also proposes to implement a High School Equivalency Programme (HSEP) by September 2003. The estimated stock of youths in need of remedial education (literacy & numeracy) is **18820** and for HISEP is **59660**.
  - iii) The Peoples Action for Community Transformation (PACT) an NGO project. This project provides mainly remedial education and skills training to youths 10-19 years. It also attempts to reintegrate eligible youths into the secondary school system.
- 13. Currently, they do not have the capacity to absorb the estimated 123,000 unattached youths in need of remedial education, HSEP or HEART/NTA

training. However, while the programmes will have to expand in order to adequately provide educational and training programmes in the short-term, it can be expected that annual demand should decrease in the long-term as these initial needs are satisfied and as other improvements in education at the secondary level are achieved.

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#### I. INTRODUCTION

The Government of Jamaica plans to implement a Youth Development Program whose main objective is to reduce the number of poor unattached youth by facilitating their re-entry into the education system (formal or non-formal), the training system, or the labor market. Under the project a package of services comprised of remedial education, training, and socialization will be delivered to unattached youth. Remedial education will be aimed at bringing youth to a specific and recognized level of skill, such as functional literacy and numeracy, or grade 9 equivalency. Training will consist of pre-vocational skills training coupled with internships to provide workplace exposure and to develop labor market experience. Socialization will consist of modules such as conflict resolution, selfesteem, life-skills, and counseling services for victims of violence and other forms of abuse. The target group will be unattached poor youth aged 15-24. The socialization component of the package will be provided to all youth; the other component will vary depending on the specific background and interest of the beneficiary, with older adolescents and young adults receiving skills training and work experience, for example. Stipends, on-site child-care and other incentive mechanisms will be provided to ensure the participation of the target group.

The objective of this report is to provide a detailed profile and mapping of unattached youth for the future loan operation. The specific objectives are:

- 4. To provide information on the number and characteristics of unattached youth in order to assist in the design of appropriate interventions to address the main skill deficiencies among this group.
- 5. To describe the range of skills and qualifications of unattached youth in the target age group
- 6. To map skill levels to education and training opportunities.

The unattached youth are defined as individuals, aged 15-24 years, who are not in school, not in work (unemployed), and not participating in any training course. (See Terms of Reference in Appendix 1).

#### II. METHOD

This study utilized secondary data from national surveys, complemented with institutional data from educational agencies as follows:

## a. General description of unattached youth between 15-24 and skill levels of unattached youth.

To obtain a profile of the unattached youth in terms of their numbers, demographics and socioeconomic status, secondary data from three national surveys namely the Survey of Living Conditions, the Jamaica National Literacy Survey and the Labour Force Survey were used. National estimates of the unattached youth were obtained using the Demographic Statistics Reports (STATIN) (See Appendix 2) and applying the appropriate percentages obtained from the survey data. However, the Literacy Survey was already weighted to provide national estimates.

Education statistics and information from the Caribbean Examination Council were also analysed to complement the survey data. Information included enrolment at various grades of the education system, achievement and placement at grades 6 and 9, and CXC results. The latest figures available from the ministry were used.

Education statistics provide information about the public school system only. However, survey data provides information regarding education in both private and public. Therefore, we expect that there while there should be some agreement between the two sources of data, there will also be differences.

#### b. Mapping skill levels to education and training opportunities.

To determine what educational and training opportunities were currently available and planned, key informant interviews were held with persons from agencies involved in the development and delivery of educational and training courses. Appendix 3 provides a complete list of the persons. Available data were collected on capacity of the relevant institutions, levels of instruction, intakes, rejection rates and reasons for rejection.

Details of the methodology are shown in Appendix 4.

#### Limitations of Study

- 1. Analysis of the youth is hindered by a methodological problem in that the original sampling unit for the Survey of Living Conditions is the household rather than the individual. In looking at the youth, individuals need to be analysed; but it is difficult to extract individuals for analysis, especially when looking at household attributes when these will relate to all the occupants and some households will have both attached and unattached youths.
- Relevant questions, and even more importantly, the groupings for the responses, were not standardized across all years of the SLC, nor across surveys and education statistics. Consequently, the data did not always match exactly.
- 3. The merged datasets (SLC/LFS) yielded small samples in each year except 1998 (Appendix 5), limiting the level of disaggregation possible.
- 4. The Labour Force data yielded little in relation to on the job training. Therefore any information on skills was obtained from the SLC.
- 5. The data sources represent slightly different groups i.e. the education statistics represent the public school system only, while the survey data represent whole population public and private. Therefore the numbers would not match. Nevertheless, together they provide a good picture of the educational status of youths.

#### III. FINDINGS

# a. <u>General description of unattached youth between 15-24 based on the Survey of Living Conditions.</u>

Table 1 presents a detailed profile of the number of unattached youth aged 15-24 in terms of numbers, areas of residence, sex, age distribution, and relationship to household head. Between 24 and 34 percent of youths were unattached over the period 1998 and 2001, and this translates into 114500 -163000 youths, with an average of 141,744. A breakdown by parish (based on 1998 SLC) is given in Appendix 6). Consistently more of these youths were females but there was no clear trend with respect to age groups and over the period there were approximately equal numbers of youths in the age groups 15-19 and 20-24 years. The majority were the child or grandchild of the household head or other relative, but over 10 percent were either the head or spouse of the head. Just over half of the unattached youths can be found in rural areas.

Table 1. Profile of unattached youth 15-24 years. Percentages and estimated numbers.

Characteristic	Year					
	1998		2000		2001	
	%	N	%	N	%	N
Unattached youths	32	148587	24	114480	34	162166
Gender						
<ul> <li>Males</li> </ul>	37	56463	39	44647	42	69731
<ul> <li>Females</li> </ul>	63	92124	61	69833	58	92435
Age group (years)						
• 15-19	49	72808	40	45792	53	85948
• 20-24	51	75779	60	68688	47	76218
Relationship of unattached youth to						
household head						
<ul> <li>Head</li> </ul>	7	10401	7	8014	6	9730
<ul> <li>Spouse</li> </ul>	8	11887	10	11448	6	9730
<ul> <li>Child of head</li> </ul>	58	86180	54	61819	62	100543
<ul> <li>Spouse of child</li> </ul>	1	1488	3	3434	2	3243
Grandchild	12	16345	10	11448	12	19460
Other relative	12	19316	13	14882	10	16217
Other non-relative	3	2972	3	3434	2	3243
Area of residence						
• KMA	24	35661	26	29765	29	47028
<ul> <li>Other Towns</li> </ul>	20	29717	17	19462	15	24325
Rural	56	83209	57	65254	56	90813

Source: Survey of Living Conditions datasets, 1998, 1999, 2001

One quarter of unattached youths lived below the poverty line, while about one-half lived in female-headed households. Generally, the educational level of the household heads was lower than that of the youths, 60-70% having attained grade 9 or less of education (c.f. 25% of the unattached youths). The household size of 6 persons is higher than the national average of 4 persons (Table 2).

Table 2. Characteristics of the households of unattached youths, 1998-2001

Characteristic	Year					
	19	98	2000		20	001
	%	N	%	Ν	%	N
<ul> <li>Unattached youths living</li> </ul>						
below the poverty line	24	34175	24	54950	25	40542
<ul> <li>Unattached youths living in</li> </ul>						
female headed households	57	84695	46	61819	54	87570
Educational level of household heads						
<ul> <li>highest school type reached</li> </ul>						
<ul> <li>Primary</li> </ul>			28	32054	32	51893
Grades 7-9			36	41213	38	60001
<ul> <li>Comprehensive/new</li> </ul>						
secondary/secondary high			18	20606	15	24325
<ul> <li>Traditional high/ technical</li> </ul>						
high			15	17172	12	19460
Tertiary			3	3434	3	4865
<ul> <li>Adult education<sup>a</sup></li> </ul>			1	1145	1	1622
Mean household size	6.3		5.9		5.9	

Source: Survey of Living Conditions datasets, 1998, 1999, 2001

It should be noted that there were significant differences between the attached and unattached in terms of gender and educational level of the household head, and poverty status. Significantly more unattached youths lived below the poverty line, in households headed by females, and/or with heads with lower educational levels. Also mean household size of the unattached youth was significantly larger than that of attached youths. There were no obvious differences in the union status of the head of the household. Table 3 illustrates these findings for 2001.

Table 3. Characteristics of households of the attached and unattached youths, 2001

Characteristic	Attached youths %	Unattached youths %	All Jamaica
Below the poverty line	16	25	18
Living in female headed households	47	54	54
Union status of household head			
Married	34	38	28
Common-law	20	16	14
Visiting	15	14	17
Single	17	18	22
None	14	15	19
Educational level of household heads –			
highest school type attended			
Primary or less	27	33	30
All age -grades 7-9	35	38	34
<ul> <li>Comprehensive/new secondary</li> </ul>	13	14	14
	14	12	13
Iraditional high/ technical high     Tertiary	10	2	8
	1	1	1
Adult education <sup>a</sup> Area of residence	•	-	-
Area of residence	24	20	20
• KMA	31 16	29 15	28 17
Other Towns	54	56	55
Rural	54	30	55
Population consumption quintile	4.0	27	00
Poorest	16	27	20
• 2	19	24	20
• 3	21	22	20
• 4	21 17	18 10	20 20
• 5	17	10	20
Gender			
<ul> <li>Males</li> </ul>	55	42	50
Females	45	58	50
Age group (years)			
• 15-19	59	53	
• 20-24	41	47	
Relationship to household head			
Head	8	6	29
Spouse	3	6	12
Child of head	61	62	36
Spouse of child	0	2	1
Grandchild	14	12	13
Other relative	12	10	8
Other non-relative	2	2	1
Mean household size	5.3	6.0	
Mean number of children less than 14	1.7	2.0	
years in household		2.0	
Mean number of adults in household	3.6	4.0	

Source: Survey of Living Conditions datasets, 2001.

#### b. Skill levels of unattached youth

This section provides information regarding the skill level of the unattached. However there are two constraints to a full analysis. First, the 1998 survey only examined educational level in terms of primary, secondary and tertiary and this is inadequate for a full understanding of the levels of schooling, given the variety of school types within the educational system in Jamaica. Second, the TOR asked for an analysis of skills refer to job related skills, such as internships, apprenticeships, and job experience. It also expected that several qualification/skill groupings should be constructed based on the data and for each grouping, the number, age, sex, and place of residence should be reported for members of the group. However, very few youths reported having a skill in the SLC and even fewer reported a job related skill (in the labour force data), in part, because many had never worked.

Skill levels of unattached youths are presented in Table 4. In 2000 and 2001, about a quarter of unattached youths attained only a grade 9 level or less of education. Very few i.e. less that 5%, had tertiary education. The majority had little qualifications, with over 70% having achieved only the equivalent of CXC at basic level or no qualifications at all. These youths, most of whom also have no skill, are ill-equipped for the job market and would require additional training.

Table 4. Education and skills of unattached youths, 1998, 2000, and 2001

Characteristic	Year					
	1998		2000			2001
	%	N	%	N	%	N
Educational level – highest school type attended						
<ul> <li>Primary</li> </ul>	18 <sup>a</sup>	26746	4	4579	2	3243
All-age (7-9)/jnr. high			21	24041	21	34055
Comprehensive/new	77 <sup>b</sup>	114412				
secondary/secondary high			42	48082 <sup>d</sup>	35	56758
Traditional high/ technical high			29	33199	39	63245
Tertiary	3 <sup>c</sup>	8915	3	3434	2	3243
Adult education <sup>a</sup>			1	1145	1	1622
Educational level achieved – highest examination passed						
None			81	92729	65	105408
CXC basic, JSC 5, SSC			3	3434	10	16217
CXC,GCE 1-2			7	8014	12	19460
CXC, GCE 3-4			4	4579	7	11352
CXC, GCE 5+ or more			5	5724	6	9730
Does not have a skill			71	81281	73	118381
Unskilled and wants to learn a skill			57	65254	51	60374

Source: Survey of Living Conditions datasets, 1998, 1999, 2001

<sup>&</sup>lt;sup>a</sup> In1998, the SLC collected information on educational level by <sup>a</sup>primary, <sup>b</sup>secondary and <sup>c</sup>tertiary level only

d By 2000 all 'comprehensive/new secondary' schools were upgraded to 'secondary high schools'

The SLC asked respondents who were no longer in school whether they had a skill, and whether they would like to learn a skill (if they did not have one). About 30% of the unattached youths reported having a skill. Their distribution by area of residence patterns the national distribution of unattached youths, suggesting that the opportunities for skills training, whether formal or informal, are relatively even throughout the country. However, it is likely that much of the training received was informal. Fallis (2001) reported that although only 11% of persons at JAMAL had received previous training, 68% said that they had learnt some job related skill. This could explain the finding that more males (38%) than females (30%) reported having a skill even though females are more likely to seek education in the formal education sector. It also has implications for how the educational/training sector markets its products to males. Among those who did not have a skill, just over one half (51%) stated that they were interested in learning a skill.

For each year, there were notable differences between the attached and unattached in terms of gender and educational level attained (highest level of education reached), but there were no differences in age group, area of residence or examinations passed. A greater proportion of female youths were unattached and this is explained by the higher levels of unemployment among females in the population as a whole. When we examine the out of school population, there are fewer females out of school especially among those aged 15-19 years. However, unemployment is considerably higher among females in general and female youths in particular. Consequently, more females were unattached. Over the period 1998-2001, the differences narrowed and this was mainly due to more females being in school, although there have been reports of increased employment of females as a result of the HEART/NTA programme.

Differences in educational attainment of the attached and unattached are not surprising. The lower the educational level, the lower the potential for further education and/or employment and the increased likelihood of being unattached. One would also have expected higher levels of unattached youths in the rural areas where both education and job opportunities are lower. An examination of level of education and employment levels by area of residence in 2001, revealed that educational attainment and achievement of the rural youth was significantly lower than the urban youths but level of unemployment was similar in the three areas (Table 5).

Table 5. Characteristics of youths, 15-24 years by area of residence, 2001

Characteristic	KMA	Other towns	Rural
	%	%	%
Employed	56	56	55
Educational level - highest school type attended			
<ul> <li>Primary/all-age or less</li> </ul>	4	11	22
<ul> <li>Comprehensive/new</li> </ul>			
secondary/secondary high	24	42	32
<ul> <li>Traditional high/ technical high</li> </ul>	48	43	41
<ul> <li>Tertiary</li> </ul>	17	3	2
Adult education	6	2	2
Educational level achieved – highest			
examination passed			
None/CXC basic, JSC 5, SSC.	55	81	80
CXC, GCE 1+ or more	44	19	20
Does not have a skill	65	63	69
Unskilled and wants to learn a skill	45	40	50

Source: Survey of Living Conditions datasets, 2001

When these same issues were examined in relation to gender (Table 6), there were also significant differences in relation to employment status, level of educational attainment and achievement, with females having a lower level of employment, but higher levels of school attainment and achievement. There was no difference between the sexes in relation to whether they had a skill. However, significantly more females (59%) who were unskilled, expressed an interest in obtaining a skill, when compared with the unskilled males (41%).

While recognizing the value of targeting the unattached youth for education and skills training, it is important that the unskilled, but employed youth should also be targeted. In 2001, 58% of the employed youths reported having no skill, and of those, 43% stated that they would like to learn a skill<sup>1</sup>. For 2001, the estimated size of that group of youths is 65,500 persons. A small percentage of these unskilled but employed youths have already achieved some qualifications, but the majority would not have any. Unfortunately, the sample size does not permit more detailed analysis so this report could not quantify the youths who are unskilled, uneducated, but employed.

 $^{\rm 1}$  The corresponding figures for 2000 were - 54% not having a skill and 45% wanting to learn one.

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Table 6. Characteristics of youths, 15-24 years by gender, 2001

Characteristic	Male	Female
	%	%
Employed	67	44
Educational level – highest school type attended		
<ul><li>All-age, primary or less</li><li>Comprehensive/new</li></ul>	18	12
secondary/secondary high	33	30
<ul> <li>Traditional high/ technical high</li> </ul>	42	45
Tertiary	4	9
Adult education	2	4
Educational level achieved – highest		
examination passed		
None/CXC basic, JSC 5, SSC.	81	65
CXC, GCE 1+ or more	19	35
Does not have a skill	63	70
Unskilled and wants to learn a skill	41	59

Source: Survey of Living Conditions datasets, 2001

Literacy and numeracy level of unattached youths, 1999

In 1999, a national survey of literacy levels was conducted. In addition to data on literacy level, information regarding socioeconomic characteristics such as employment was also collected so it was possible to identify the unattached youths. One word of caution, the question on employment asked whether the individual was in paid employment, unlike the labour force, which asks activity during a specified week. The unemployment levels were higher as measured by the Literacy survey when compared with the Labour Force and consequently has implications for comparability.

The unattachment rate was 42% and the estimated number of unattached youths was 195 960 in 1999, whereas the SLC/Labour Force merged datasets estimate the unattached at between 114 000 and 163 000. However, the characteristics of the unattached were found to be similar in both surveys. For example, both surveys found that more females than males were unattached, and the unattached generally had lower levels of education. Therefore, the findings of the literacy survey are presented here in order to obtain an estimate of literacy levels of unattached youths, as measured by that survey.

Unattached youths have a higher level of illiteracy than those who are attached (Table 7). Illiteracy was highest among persons in the rural areas followed by those in Other Towns. Considerably more males were illiterate, three times the number of females. As would be expected, the level of illiteracy decreased with increasing educational attainment. Noteworthy is the high level of illiteracy among persons with only grade 9 or less education.

Illiteracy among youths was lower than in the whole population, but the pattern of illiteracy was similar in that there were higher levels of illiteracy in the Rural areas, among males and among individuals with grade 9 or less education.

Table 7. Illiteracy in the Jamaican population and among the unattached youths, 15-24 years in 1999. Percentages and estimated numbers.

Characteristic	All Jamaica	Total Unattached Youths	Illiteracy in unattached youths	
	% illiterate		%	Estimated numbers
Literacy level				
All Jamaica	20			
Youths	8			
<ul> <li>Attached</li> </ul>	5			
Unattached	13	195962	13	24495
Area of residence				
• KMA	12	46835	6	2810
Other Towns	17	25279	9	2275
Rural	25	123848	17	21050
Gender				
Male	26	94528	20	18910
Female	14	101434	6	6090
Age group (years)		0=000	4.0	40-00
• 15-19		97683	13	12700
• 20-24		98279	12	11795
Educational level attained – highest				
school type attended				
<ul> <li>None</li> </ul>	96	588	100	588
<ul> <li>Primary/All-age/jnr. high</li> </ul>	31	60552	34	20590
<ul> <li>Comprehensive/new</li> </ul>	_	00.400		<b>-</b> 000
secondary/secondary high	7	63492	8	5080
<ul> <li>Traditional high/ technical</li> </ul>		50005	4	500
high	2	58985	1	590
<ul> <li>Tertiary</li> </ul>	- 56	4703 1372	- 63	-
<ul> <li>Adult literacy</li> </ul>	14	2156	63	860
<ul> <li>Other adult education</li> </ul>	12	3919	- 12	270
Other	12	3919	12	270
Educational level achieved –				
highest examination passed	_			
None	24	141876	17	24495
CXC basic, JSC 5, SSC.	2	19008	-	-
CXC,GCE 1-3	2	22928	-	-
CXC, GCE 4+ or more	1	12346	-	-

Source: Jamaica Adult Literacy Survey dataset. Differences in totals are due to rounding

Educational attainment and achievement - information from the formal public education system.

Primary education is offered to students, 6-11 years in grades 1 to 6, at primary, all-age, primary and junior high, and preparatory schools. At the end of grade 4, children sit the Grade 4 literacy test to assess their literacy levels. Children who fail the test are placed in summer camps where they are tested for learning problems and are provided with remedial education. At the end of grade 6, students sit the Grade Six Achievement Test (GSAT) that examines their competence in Mathematics, Science, Language Arts, Social Studies and Communication Task.

Secondary level education is offered in two cycles – the first is provided in grades 7 to 9 for children aged 12 –14 years, and the second, in grades 10 to 11 for children 15 -16 years. Secondary high (traditional and upgraded), technical high, and comprehensive high, all offer the full five years of secondary education. However all-age, primary and junior high only offer the first cycle of high school.

Based on the GSAT results, children are placed in the school of their choice according to their performance. Schools of choice are the traditional high and technical high schools. The rest are placed either in an upgraded secondary high school, comprehensive high school, vocational and agricultural school or in grade 7 of the all-age or primary and junior high school depending on their availability within the area/parish in which the student lives. Therefore, the child placed in grade 7 at all-age or junior high school is not necessarily a lower achiever than those placed in upgraded high schools. At the end of grade 9, students at the allage or primary and junior high school have to take a qualifying examination, the Grade 9 achievement test (GNAT) or Junior High School Certificate (JHSC), in order to be placed in a secondary high school. However, the availability of places is low because the majority were already taken at the grade 7 level and therefore space is mainly created by attrition.

#### Results of Grade 6 and Grade nine examinations

With the introduction of the GSAT in 1998, about 80% of approximately 40,000 children sitting the examination are placed in secondary high schools (upgraded schools and traditional high schools) and other schools providing the full five years of secondary education. The rest are placed in all-age and junior high schools (Table 8). Although the philosophy of the MOEYC is that the children have not failed but rather there are insufficient places to absorb all the children, it is evident that most of the children who fail to secure a place in the traditional secondary and technical high school performed at a lower level. Mean GSAT scores for children attending all-age and primary & junior high school were at least 3 percentage points lower than for those attending primary schools and 30 percentage points lower than for children attending preparatory schools (except in Language Arts and Communication Tasks). The grade four literacy test

introduced recently has found that 47% of children tested were deemed not to be at risk, while 21% were 'uncertain' and 32% were at risk<sup>2</sup> (MOEYC, 2000). The literacy survey showed that over 30% of persons with only primary/all-age education were illiterate. About 20% of unattached youths left school having only attained grade nine or lower.

Table 8. Placement of GSAT students in public secondary and technical high schools and Junior High and All-Age schools, 1998-2000

Year	1998/1999	1999/2000
	GSAT	GSAT
Sitting		
- Male		21845
- Female		23314
- Total	39742	45159
Awards	Secondary and	Secondary and technical
	technical high	high
	_	
- Male		15923
- Female		19036
- Total	31685 80%	34959 77%
	Primary & Junior	Primary & Junior high/All-
	high/All-Age/special	Age/special
- Male		5922
<ul> <li>Female</li> </ul>		4478
- Total	8057	10500

Source: Ministry of Education Youth and Culture.

The results of the grade nine and junior high examination results between 1998 and 2002 are shown in Table 9. Between 1997 and 2001 about 11,000 children sat the grade nine achievement test or the Junior High School certificate, both of which allow entry to secondary high schools. The number of children gaining entry to secondary high schools increased steadily over the period while the number of children in Grade 9 at those schools showed a steady decline as place availability in secondary high schools increased. The male:female differences are marked with more males enrolled at all age and junior high schools but proportionately fewer entering the qualifying examinations and passing them.

<sup>2</sup> MOEYC groups students into 'Not to be at risk' – students master all three components of the test; 'Uncertain' - students master at most two components; and 'At risk' students fail all three components

Table 9. Junior High School Certificate/Grade Nine Achievement for entry to

public secondary high schools

public secondary n							•	
Year	1997/199	8	1998/19	999	1999/20	000	200/2001	
	N	%	N	%	N	%	N	%
Enrolment in all age								
and junior high –								
Grade 9								
- Male	8622		8253		8289		7075	
- Female	6496		6089		5530		4522	
- Total	15118		14342		13819		11597	
Entries	7 7 7 7 7							
- Male	4973	57.7	5348	64.8	6041	72.9	6273	88.7
- Female	5811	89.5	6055	99.4	5344	96.6	4551	100
- Total	10784	71.3	11403	79.5	11385	82.4	10824	93.3
Awards					11000	02		00.0
- Male	772	15.5	733	13.7	2766	45.8	3189	50.8
- Female	1426	24.5	1346	22.2	2270	42.5	3141	69.0
- Total	2198	20.4	2079	18.2	5036	43.9	6330	58.5
Estimated no. of								
children at junior								
high/all-age not								
placed								
' - Male								
- Female	7850	91.0	7520	91.1	5523	66.6	3886	54.9
- Total	5070	78.0	4743	77.9	3260	59.0	1381	30.5
	12920	85.5	12263	85.5	8783	63.6	5267	45.4

Source: Ministry of Education Youth and Culture.

Each year the number of children placed at secondary high school increased, while the cohort of children enrolled in all age and junior high schools have decreased by about 1000. While this is a positive trend, we do not yet know whether this will translate into more children passing examinations such as CXC. Most of these children are placed in schools upgraded to secondary high schools, where few are entered and even fewer gain passes at the CXC levels. However, they should have benefited from the extra years schooling which at least should provide the basics of a vocational skill. Nevertheless, it has implications for the numbers who will be eligible for the HEART/NTA programme. In theory, these numbers should increase as more children are placed in secondary high schools. In practice, this will only be true if an increase in numbers signify an improvement in the academic competencies of the children and not just an increase in the availability of places.

A crude estimate of the number of children exiting the school system at the end of Grade 9 in a given year can be obtained by simply subtracting the number enrolled at the grade 10 in the following year from those enrolled in 9 in that year. This is shown in Table 10. However, it is difficult to estimate the precise number of students exiting the public educational system at the grade 9 level because of the complexity of the system and the recent changes in place availability. In previous years, especially prior to the expansion of the secondary high schools and the introduction of GSAT (in other words for youths 17 years or older), that

estimate could be a relatively accurate representation but, if current trends of decreasing numbers of children persist, then the situation should alter considerably. Therefore, we can obtain a reasonably accurate estimate of the stock of youths, 15-24 years who have exited the system at the end of grade 9, but cannot accurately estimate the flow of youths.

Table 10. Number of children exiting the public school system at Grades 9 and 11, 1998-2002

Year	Grade 9	Grade 11	Number not sitting CXC	No. leaving school without any CXC subjects
1998	10950	30094	6865	13997
1999	11757	31163	10410	15894
2000	10361	33529	12632	18145
Average per annum	11023	31535	9969	16012

Source: Caribbean Examination Council; Ministry of Education Youth and Culture.

The results of the Caribbean Examination Council Caribbean Secondary Education Certificate (commonly known as CXC) over the period 1998 to 2002 are presented in Table 11 and 11a. Each year about 26000 students sit the examination, out of a cohort of over 30000 students enrolled in grade 11. Over the period, the number of students achieving four or more passes in CXC subjects<sup>3</sup>, has steadily increased both in absolute numbers and as a percentage of those sitting the examination. Another 12000 on average passed 1-3 subjects during the 5-year period. On the down side, the number of students sitting the examination has fluctuated somewhat with no significant increase over the period, while the number of students in grade 11 has increased as the government increased the number of places in secondary high schools through upgrading and expansion. Consequently, 16000 youths (those who did not sit the CXC plus those who sat but did not pass any subject), on average, leave the school system after grade 11 without suitable qualifications that would allow them to pursue a tertiary education (Table 11). Most of these students attended the upgraded secondary high (formerly new secondary and comprehensive high schools) (Table 11a).

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<sup>&</sup>lt;sup>3</sup> This is the minimum qualification for entry into tertiary institutions such as the teachers colleges.

Table 11. Results of CXC examinations, General and Technical high Proficiency Level, 1998-2002

Year	Students	Students	sitting	Achiev	ing no	Achiev	ring 1-3	Achieving	4+ CXC
	in	CXC exar	mination	CXC su	ubjects	CXC s	ubjects	subje	cts
	terminal	No.	%	No.	%	No.	%	No.	%
	grade								
1998	31882	25017	78.5	7132	28.5	12221	48.9	5664	22.6
1999	33729	23319	69.1	5484	23.5	11575	49.6	6260	26.8
2000	36649	24017	66.4	5513	22.7	11388	47.4	7116	29.1
2001		25353		5024	19.8	12532	49.4	7797	29.1
2002		26090		5365	20.6	12206	46.8	8519	32.7
Total		123796		28518	23.0	59922	48.4	35356	28.6
Av. p.a.	34087	24759	72.6	5704	23.0	11984	48.4	7071	28.6

Source: Caribbean Examination Council; Ministry of Education Youth and Culture.

Table 11a. Performance of students in Mathematics and English Language by school type, 2001-2002

School type	Mather	natics	English Language		
	2001	2002	2001	2002	
Traditional and technical high schools					
Eligible cohort	16257	16648	16257	16648	
Entries	11175	11295	12585	12764	
Entries as % of eligible cohort	69%	68%	77%	77%	
Awards	4151	5012	8328	8051	
Awards as % of entries	37%	44%	66%	63%	
Schools upgraded to secondary high schools					
Eligible cohort	20315	20282	20315	20282	
Entries	5201	4881	5385	6353	
Entries as % of eligible cohort	26%	24%	27%	31.3%	
Awards	590	837	2051	2185	
Awards as % of entries	11%	17%	38%	34%	
Awaius as 70 til elilles	1170	1770	30%	34%	

#### Summary.

Table 12 summarises the information presented in the previous sections. The estimates using Ministry of Education and CXC results are likely to overestimate the level of unqualified youths because (a) not all children exiting the public education system at grade 9 are leaving schools, some would have migrated, a few would have entered the private school system, while some would have repeated the grade and moved up a year later<sup>4</sup>, and this is especially true for students moving from the all-age and junior high schools; and (b) many of the youths leaving school without qualifications continue their education at various private institutions. On the other hand, use of 31% to estimate the level of unattachment in unqualified youth may provide a rather conservative estimate of the magnitude of the problem. At best, the unqualified youth, when employed, would have only a few opportunities for advancement in the workforce and may have only transient employment. Therefore although they are not part of the target group of unattached youth, provisions should be made for them to improve their educational level. However, it was not possible to measure the level of unattachment in among persons of lower educational attainment and in the absence of good estimates, a questimate of 50% was also applied to provide a range.

Table 12. Summary of estimated number of unattached youths 15-24 years

	Number of	Number of	Number of illiterate	
	unattached	unattached youths	unattached youth -	
	youths (SLC) <sup>a</sup>	<ul> <li>literacy survey</li> </ul>	literacy survey	
Total	141744	195960	24495	
Male	56452	94528	18910	
Female	85292	101434	6090	
Age group years				
15-19	68182	97683	12450	
20-24	73562	98279	11530	
KMA	37485	43881	2810	
Other towns	24501	28262	2275	
Rural	79758	123804	21050	
Highest educational level Gr. 9 or				
less	32959	60641	20270	
No. without CXC general proficiency	108893	154414	24495	
Estimated no. of youths who left school system by end of gr. 9 b		34170 - 55110		
Estimated no. youths who left school system at gr. 11 without any qualifications <sup>b</sup>	49640 – 82230			

<sup>&</sup>lt;sup>a</sup> Average for 1998, 2000, 2001

<sup>b</sup> Based on Education statistics raised for 10 years multiplied by 31% (mean percentage of unattached youths - 1998, 2000, 2001) and 50% (guestimate of level of unattachment among persons of lower educational attainment)

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<sup>&</sup>lt;sup>4</sup> The general practice is that children moving to secondary high from the all-age and junior high at the end of grade 9 are made to repeat the grade.

The SLC estimates are conservative in comparison with the estimates from the literacy survey. However, the SLC estimates more accurately conform with the international and local classification of unemployment and are used throughout this report.

#### c. Mapping skill levels to education and training opportunities

Training opportunities for unattached youths.

The main government agencies offering education and training for unattached youths with incomplete education in Jamaica are: the Jamaica Movement for the Advancement of Literacy (JAMAL) Foundation and the Human Employment and Resource Training Trust/National Training Agency (HEART/NTA). However, a number of Non-governmental organizations (NGOs) are also providing these services with some governmental support. Most notable is the Uplifting Adolescent programme that falls under the project - (PACT).

This section describes the opportunities provided by each agency and the number of individuals reached.

#### 1. The Jamaica Movement for the Advancement of Literacy (JAMAL) Foundation

This organization was formed in the early seventies in response to the need to provide basic education to the large number of illiterate persons. Although the level of literacy has increased considerably since then, there is still a large pool of illiterate persons (20% of persons over 14 years). Consequently, the original raison d'etre of the foundation is still relevant but there is the need to widen its scope in order to equip users to function within the current environment.

Annually, JAMAL has a total enrolment of approximately 11,000 persons of which about 6,500 attend regularly and 5,500 graduate from the programme each year. Graduation means that the individual can function at a grade six level in terms of literacy and numeracy. Unfortunately, the data are not disaggregated further, but JAMAL personnel state that in general:

- more females than males attend JAMAL, although the level of illiteracy is higher among males and;
- those attending are unemployed youths less than 20 years.

A small percentage of these youths have done the Grade 9 achievement test and been re-enrolled into the mainstream secondary school system. However, the majority are ill equipped to move forward whether into employment or further education. Consequently, HEART/NTA together with JAMAL, are currently developing a High School Equivalency Programme (HSEP) aimed at educating these persons to a Grade 11 level. The programme would provide certification for those graduating and it is expected that individuals completing the programme could go on to higher education at a college level. The modular nature of the

programme is designed to allow students to enter at various months throughout the year and at a level appropriate to them. The target date for commencement of the programme is September 2003, but unfortunately, JAMAL is unable to provide an estimate of expected demand or capacity.

This programme seems ideally suited to the unattached youth who have not completed their schooling, especially those who have not even attained the grade 9 level and/or do not have a career goal that could be satisfied by the HEART/NTA programme. The main obstacles are:

- a) The student will be required to pay for his/her education. A high proportion of unattached students fall below the poverty line and it is likely that their failure to complete their education was in part due economic constraints. Therefore many will be unable to take advantage of the HSEP unless funding is provided.
- b) The programme plans to include self-directed instruction but potential students may not have the study and time management skills required to undertake such a programme (Fallis, 2001).

In 2001, JAMAL carried out a small survey of its students to determine some general information on the preferences of students who might take the HISEP in the future. An important finding was that 62% of those interviewed were interested in pursuing a high school certificate. This suggests a high level of interest among those interviewed, but the sample was biased towards persons who see the value of education and are willing to pursue further studies.

# 2. The Human Employment and Resource Training Trust/National Training Agency (HEART/NTA).

HEART/NTA offers a wide range of training opportunities to unemployed persons and persons within the workplace. Its target group is the age group 15-24 years but some flexibility is permitted. Applicants who do not have a minimum of 2 CXC subjects are required to take a test that evaluates them at the grade 9 levels. However, there are a few programmes that do not require passes at the grade 9 level.

A wide variety of skill areas are offered in the following industry areas: information technology, agriculture, apparel and sewn products, automotive skills, beauty services, commercial skills, building and construction skills, and industrial maintenance. These courses can be accessed through several institutions, including ten academies, 15 vocational training centres and three specialised institutes distributed throughout the island. Additionally, courses can be accessed through: community based programmes, special needs programmes, industry based training projects, Skills 2000 and special projects. Table 13 presents the distribution and capacity of HEART/NTA training

Table 13. HEART/NTA training institutions and sites, their location, capacity and educational level required, 2001/2002

	Locations	Capacity	Minimum education
		per annum	required
Academies	KSA (5)	6050	Grade 9
(10)	St. Catherine (1)	1560	achievement test
	Clarendon (1)	780	
	Manchester	-	
	St. Elizabeth	-	
	Westmoreland	-	
	Hanover (1)	2160	
	St. James (1)	180	
	Trelawny	-	
	St. Ann (1)	960	
	St. Mary	-	
	Portland	-	
	St. Thomas	-	
	Total	11690	
Vocational training centers	KSA (2)	1130	Grade 9
(16)	St. Catherine (3)	1020	achievement test
	Clarendon	-	
	Manchester (1)	550	
	St. Elizabeth (2)	930	
	Westmoreland (3)	1090	
	Hanover	-	
	St. James (1)	370	
	Trelawny (1)	330	
	St. Ann (1)	350	
	St. Mary (1)	380	
	Portland (1)	300	
	St. Thomas	-	
	Total	6450	
Industry based Institutes	KSA (2)	360	Grade 9
(3)	St. Catherine (1)		achievement test
	` ′		
	St. James (1)	190	CXC 5 subjects
	Total	550	
Community based training	At least one per	5570	None
opportunities	parish except St.		
(85)	Elizabeth		
Apprenticeship	All parishes	770	Grade 9
	All parishes		achievement test
Vocational Training Development		770 1290	
Vocational Training Development Institute Instructor and	All parishes		achievement test
Vocational Training Development Institute Instructor and professional training	All parishes KSA	1290	achievement test CXC 5 subjects
Vocational Training Development Institute Instructor and professional training Projects with SDC and remedial	All parishes		achievement test
Vocational Training Development Institute Instructor and professional training Projects with SDC and remedial education programme (MOE)	All parishes KSA	1290	achievement test CXC 5 subjects None
Vocational Training Development Institute Instructor and professional training Projects with SDC and remedial education programme (MOE) School Leavers Training	All parishes KSA	1290 2000-3000 4450 but	achievement test CXC 5 subjects  None  CXC/SSC 2 subjects
Vocational Training Development Institute Instructor and professional training Projects with SDC and remedial education programme (MOE)	All parishes KSA	1290	achievement test CXC 5 subjects None

programmes<sup>5</sup> and the eligibility requirements for each. For the fiscal year 2001/2002, 33000 persons were enrolled in the various training programmes and over 11000 graduated.

Table 14 shows the applicants processed, tested and eligible for the period 1999 to 2002. More females than males applied in each year, with about three-quarter of the applicants being required to take the test. Just about half of those taking the test were successful and could enter one of the training programmes. The rest had to enter a remedial training programme if they wanted to continue. Therefore the overall success rate among applicants processed was around 65%. It should be noted, however, that eligibility does not automatically mean that the applicant will be immediately enrolled in a programme because this will depend on availability of spaces.

Table 14. Applicants processed, tested and eligible for HEART/NTA, 1999-2002

	199	9/2000	2000/2001		2001/	2002
	N	%	N	%	N	%
Applicants processed	•					
- Male	13106	46.6	14402	45.4	12259	40.4
- Female	15022	53.4	17300	54.6	18120	59.6
Total	28128	100.0	31702	100.0	30379	100.0
Applicants tested as % of appli	cants proces	ssed				
- Male	9973	76.1	11421	79.3	9119	74.4
- Female	10663	71.0	11475	66.3	11458	63.2
Total	20636	73.4	22896	72.2	20577	67.7
Successful -Grade 9 + as % of	applicants t	ested				
- Male	5326	53.4	5731	50.2	4626	50.7
- Female	5404	50.7	6039	52.6	6143	53.6
Total	10730	52.0	11770	51.4	10769	52.3
Applicants eligible as % of app	icants proce	essed				
- Male	8459	64.5	8712	60.5	7766	63.3
- Female	9763	65.0	11864	68.6	12805	70.7
Total	18222	64.8	20576	64.9	20571	67.7

Source: HEART/NTA.

3. Non-governmental organisations. These have always provided various services to youths but for the most part, operated in isolation. In 1996, a 26 member collaborative network of NGOs and Community Based organizations, Peoples Action for Community Transformation (PACT), was launched, with funding from the Canadian International Development Agency (CIDA). Its focus was "on poverty reduction, advancement of education and effectively empowering people to transform their communities". (PACT, ). It is a 26 member collaborative network of NGOs and Community Based organizations aimed at strengthening communities through a collaborative framework.

<sup>5</sup> Note that this does not include in-service training opportunities.

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Pertinent to the issue of training of the unattached youth, is its most recent initiative, the Uplifting Adolescents Project 2 (UAP2). PACT was granted an award by USAID to provide support for the second phase of this project. The objective of the project is "the betterment of at-risk youth between the age of 10 and 18 years old who are not enrolled in school, have dropped out of school and/or do not attend school on a regular basis". While the activities are varied, the essence of the project is to provide remedial education, skills training, life skills and re-socialisation of youths 10-18 years through a network of NGOs and community based organisations. The present capacity of these organizations is about 6500 youths per year, some of whom reenter the school system or prepare for entry into one of the HEART/NTA training programmes. However, the project aims to increase its coverage of the estimated 20,000 youths in their target group through greater collaboration between the agencies and improved financial management and information sharing.

Unfortunately it was not possible to obtain detailed statistics of the youths currently served by the project. However, most of the children served have low levels of literacy and numeracy and therefore would need remedial education.

Estimated numbers of youths expected for each educational programme.

Table 15 maps the unattached youths to training programmes based on the educational level of the youths. The training programmes are (a) remedial education i.e. literacy and numeracy currently offered mainly by JAMAL but also by the Upliftment of Adolescent project; (b) the High School Equivalency Programme (proposed) and (c) the HEART/NTA training programme. The estimates vary depending on which data source is used but this is expected because of the number of assumptions that had to be made and manner in which the data are collected. Using the lower estimate of requirements for HSEP based on the Education statistics, the mean number of unattached youths requiring one or other of these programmes is **123 320**. The estimate of unattached youths is **141,744**. It is expected that those with more than 4 CXC subjects have other opportunities but could also seek training at HEART/NTA. It must be emphasized that:

- i) These estimates are for unattached youths only, but there are many youths currently in employment who are in need of remedial education and/or skills training.
- ii) These estimates represent the total youth population 15 24 years but if the programmes are successful in attracting and providing training for large numbers of this target population in the short term, the annual demand should decrease over time (assuming that the annual cohort of individuals entering the target age group does not increase).

From these estimates it is evident that there is a large number of unattached youths (18 820) who require remedial education – significantly more than the number who enroll with the JAMAL programme and three times the number who graduate from that programme each year. Some of these youths would have benefited from remedial education through various NGOs but their numbers would be small. Clearly, those in need of remediation are not seeking the JAMAL<sup>6</sup> and there needs to be some attempt to make the programme more attractive to them. Most of these youths reside in Rural areas. Similarly, most of the youths requiring high school equivalency programme, also reside in rural areas, while the majority of youths requiring HEART/NTA training reside in KMA and Other Towns. Therefore, the challenge for the HSEP will be to ensure that the programme maximizes participation of the rural youth. For the HEART/NTA programme the challenges will be to increase the number of opportunities for potential students and to increase the diversity of training programmes offered in both urban and rural areas.

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<sup>&</sup>lt;sup>6</sup> The Jamaica Adult Literacy Survey, 1999 (JAMAL) reported that although there was a high level of awareness of JAMAL, over 80% of illiterates had never attended their literacy classes.

Table 15. Estimates of education requirements for unattached youths, 15-24 years using SLC, Literacy survey and education statistics.

	No. of youths for remedial education	No. of youths for HSEP or equivalent <sup>b</sup>						ΓA or
	<ul> <li>literacy and numeracy <sup>a</sup></li> </ul>	SLC °	Education statistics <sup>b</sup>	Mean	SLC	Education statistics	Mean	
Area of residence: KMA								
Other Towns	2023	12596	8881 -14802	10738 - 13700	20875	30246	25561	
Rural	1638 15156	12596 44787	8881 - 14802 31577 - 52628	10738 - 13700 38182 - 48608	2930 12818	4245 18572	3588 15695	
Male	14330	39888	28123 - 46872	34056 - 43380	13184	19103	16144	
Female	4490	30091	21216 - 35360	25654 - 32756	23439	33961	28700	
Total	18820	69980	49340 - 82232	59660 - 76106	36620	53065	44843	

<sup>&</sup>lt;sup>a</sup> Using percentages from Literacy survey and applying to the estimate of the number of unattached youths
<sup>b</sup> Based on number of youths who did not sit CXC and exited at grade 9 or grade 11 (excluding those in need of remedial education (using estimates from literacy survey)), using estimates of unattachment - 31% and 50% <sup>c</sup> Those attending comprehensive high or lower (see Table 3) <sup>d</sup> Number of youth who sat CXC but passed less than 4 subjects

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#### Appendix 1 Terms of Reference

The objective of this assignment is to provide a detailed profile and mapping of unattached youth for the future loan operation. The specific objective is to provide information on the number and characteristics of unattached youth in order to assist in the design of appropriate interventions to address the main skill deficiencies among this group.

The consultant will use existing data, contact relevant agencies, institutions and NGO's as well as conduct interviews in order to obtain the information needed for this study. The specific activities to be undertaken are described below.

i. General description of unattached youth between 15-24.

Present a detailed profile of the number of unattached youth aged 15-24 in terms of numbers, areas of residence, sex, age distribution, school completion level, and relationship to household head. The characteristics of the household that these individuals reside in should also be analyzed: poverty status, family structure, gender of head, schooling of head, etc. Note that unattached youth are defined as individuals not in school, not in work, and not participating in any training course.

#### ii. Skill levels of unattached youth

Present a description of the range of skills and qualifications of unattached youth in the target age group. Qualifications should include level of education, examinations passed, and training or other educational courses attended and/or completed. Skills refer to job related skills, such as internships, apprenticeships, job experience, and so on. Several qualification/skill groupings should be constructed based on the data. For each grouping, the number, age, sex, and place of residence should be reported for members of the group. Based on these same qualification/skill groupings, an assessment should be made of the level of literacy and numeracy among the target group of unattached youth.

iii. Mapping skill levels to education and training opportunities

Based on the analysis in (b) above, the report should identify the number of unattached youth eligible (or not eligible) for the different levels of training and formal education currently available. The specific levels should include (but not be limited to) i) JAMAL basic literacy and numeracy; ii) grade 6 achievement test--GSAT; iii) grade 9 achievement; iv) HEART/NTA Level I; v) NYS; vi) CXC or Cambridge O Level.

#### iv. Data sources

The report should be based on secondary data. In part (a), the main data source is likely to be the SLC. In parts (a) and (b) above, aside from the SLC the report should use administrative data on the results of the grade 6 achievement test and grade 9 assessment, the number of children who took these exams, the number of eligible children, and the number of children who were placed into the next level. Data from JAMAL on the profile of students, and the profile of candidates for the HEART/NTA grade 9 equivalency course and exam should also be analyzed, as should administrative records from the MOEYC on school drop-out rates.

# Appendix 2. End of year population estimates of youth 15-24 years and Jamaica, 1998 - 2001

Year	Jamaica		15 – 19 years			2	20-24 years	3	
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1998				120652	124601	245253	115623	118438	234061
1999	1291443	1297485	2588900	121529	126292	247821	112921	116985	229906
2000	1300135	1304659	2604794	122063	127457	249520	111046	116429	227475
2001	1309363	1311752	2621115	121965	127727	249692	110369	116897	227266

#### Appendix 3. Persons interviewed

#### Ministry of Education, Youth and Culture

Valerie Been – Director, Planning and Development Division Sonia Francis – Project Coordinator, Youth Development Project Janet McFarlane-Edwards – Snr. Statistician Natalie Campbell – Director, NCYD

#### JAMAL

Seymour Riley – Executive Director Sheryl Kean – Admin. Assistant to Executive Director Gerald Williams – Admin. Assistant, Field Operations

#### **PACT**

Floret Blackwood - Executive Director

#### **HEART/NTA**

Tom McArdle – Snr. Director, Planning Nursita Johnson - Manager, TERC

#### **National Council on Education**

Mrs. Ruth Morris – Executive Director

#### Appendix 4. Details of Methodology.

The Survey of Living Conditions datasets. Three years were chosen, 1998, 2000 and 2001 in order to examine recent trends in educational achievement, skills levels and employment of the youth. The 1998 survey provided a larger sample and therefore allowed additional analyses. The 2001 survey, in addition to its core module on education, contained a special module on the youth. These datasets were merged with the *Jamaica Labour Force Survey* to obtain additional information regarding employment and other training.

The datasets for each year were matched based on their unique identifier. In addition, individuals were also matched according to gender and age (where the age difference between the SLC and LFS had to be greater than or equal to zero and less than or equal to 2).

Analysis of the youth is hindered by a methodological problem in that the original sampling unit for the Survey of Living Conditions is the household rather than the individual. In looking at the youth, individuals need to be analysed; but it is difficult to extract individuals for analysis, especially when looking at household attributes when these will relate to all the occupants and some households will have both attached and unattached youths.

The Literacy Survey, 1999 also provided an opportunity to examine the unattached youth in terms of their levels of literacy and numeracy because it collected data on educational level and achievement, and other socio-economic factors, in addition to assessing literacy and numeracy of persons 15 years and over.

Estimating numbers of youths expected for each educational programme.

The numbers of youths who would require remedial education, high school equivalency training or HEART/NTA type training were estimated as follows:

- i) Results from the three (or two) SLC datasets were averaged where necessary and appropriate.
- ii) The percentages for illiteracy in the sub-groups of interest, i.e. sex, educational level, examinations passed and area of residence were applied to estimates obtained in the SLC.
- iii) It was assumed that no youth attending comprehensive high/new secondary/secondary high did CXC, while all attending traditional high sat the CXC. This is not exactly correct but by and large the numbers would cancel each other. It is impossible to know, from the SLC or literacy surveys, who sat CXC. Data from the Caribbean Examination Council (see Table below) showed that for mathematics this holds true, however, the numbers of students entered for english language increased from those schools upgraded to secondary high schools.

	2001	2002
Eligible cohort in from traditional and technical high schools not entered for mathematics	5082	5353
Students from schools upgraded to secondary high school entered for mathematics	5201	4881
Difference	121	- 472
Eligible cohort in from traditional and technical high schools not entered for English language	3672	3884
Students from schools upgraded to secondary high school	5385	6353
entered for English language	1713	2464

- iv) Two estimates for the unattached were applied to education estimates. They were: the average proportion of unattached of .31 (31%) for the three SLC and a guestimate of .5 (50%) taking into account the fact that the proportion of unattached increases with decreasing qualifications.
- v) Unattached youths most of whom are females, numbering approximately 10,000, who had at least 4 subjects at the CXC level have been excluded from these estimates because their training opportunities are greater. However, some of these youths will apply to and be eligible for HEART/NTA training.
- vi) To obtain estimates of the total education requirements the following formulae were used.

#### 1. Remedial education

Number of illiterate persons in each sub-group from literacy survey applied to the estimate of unattached youths.

#### 2. Estimates for High School Equivalency Programme

a. SLC - the average for 2000 and 2001 =

receiving education at comprehensive high/new secondary/secondary high schools or lower X  $\,\%$  literate

#### b. Literacy =

receiving education at comprehensive high/new secondary/secondary high schools or lower X % literate

#### c. Education =

(Those exiting at gr. 9 (average of 3 years) X 10 years X % literate + those exiting at grade 11 who did not sit CXC (average of 3 years) X 10 years X % literate) X unattachment rate

#### 3. Estimates for HEART/NTA

a. SLC - the average for 2000 and 2001 =

(no examination passed - (those in need of remedial education + HSEP)) + CXC basic + CXC 1-2 + CXC 3-4

b. Literacy survey =

no examination passed X % literate (0.83) + CXC basic + CXC 1-2 + CXC 3-4

c. Education estimates =

Those who sat CXC but passed less that 4 subjects X unattachment rate

- vii) Proportionately more males will require remedial education and HSEP, while proportionately more females will be eligible for HEART/NTA training. Similarly more persons in the Rural Areas will require remedial education. Therefore, strictly speaking, in estimating the distribution of educational opportunities by gender and area of residence, one should take this into account. Unfortunately, a good estimate of the distribution was not possible because of the size of the sample. We therefore have two options:
- 1. To apply the distribution of unattached youths by gender and area of residence.
- 2. To apply distributions applicable to all youths.

The latter option was taken in respect of estimations for HSEP and HEART/NTA educational opportunities, while the literacy rates were used for estimation of distribution for remedial education as set out in Table A.

Table A. Ratios used in estimating the distribution of youths requiring educational programmes by sex and area of residence

	Remedial education <sup>a</sup>	HSEP <sup>b</sup>	HEART/NTA <sup>b</sup>
Gender			
<ul><li>Males</li></ul>	.76	.57	.36
<ul> <li>Females</li> </ul>	.24	.43	.64
Area of residence			
• KMA	.13	.18	.57
<ul> <li>Other Towns</li> </ul>	.11	.18	.08
<ul><li>Rural</li></ul>	.76	.64	.35

<sup>&</sup>lt;sup>a</sup> Based on Literacy survey

<sup>&</sup>lt;sup>b</sup> Based on SLC, 2001

It is important to note that the numbers did not always add up to the totals, due to rounding of both the percentages and the estimates themselves.

# Appendix 5. Sample size of youths in merged Survey of Living Conditions and Labour Force Survey datasets and for the literacy survey.

Survey	youths	Total sample	Youths	
			Attached	Unattached
SLC/LFS - 1998	2847	26504	1945	902
SLC/LFS - 2000	1039	6304	789	250
SLC/LFS - 2001	835	5714	551	284
Literacy survey - 1999	3122	22638	1800	1322

Appendix 6. Distribution of unattached youths by parish, based on 1998 Survey of Living Conditions

Parish	Unattachment	Percentage of	Number of
	rate	unattached	youths
	%	youths	
Kingston	31	4	5953
St. Andrew	23	11	16159
St. Thomas	32	4	5103
Portland	37	4	5245
St. Mary	38	6	8505
St. Ann	34	7	9497
Trelawny	20	2	2410
St. James	36	8	11623
Hanover	32	4	5953
Westmoreland	42	8	10773
St. Elizabeth	30	6	7796
Manchester	29	7	10489
Clarendon	33	12	16726
St. Catherine	32	18	25514
All Jamaica	31	100	141744