

Building a Lifelong Learning Strategy in Jamaica

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I. Introduction

A. Background

The Jamaica case study was a collaborative effort between the World Bank and Jamaica's Human Employment and Resource Training Trust/National Training Agency (which is officially called HEART Trust/NTA, and which is hereafter referred to as HEART). This case study relies on interviews with formal and informal education and training providers, business representatives, Ministry of Education, Youth and Culture (MoEYC) and HEART representatives; a focus group with HEART participants; a business survey; a private training providers survey; and a review of existing research on education and training. It was agreed that this report would use the World Bank report *Lifelong Learning in a Global Economy* as the template against which to examine lifelong learning in Jamaica.¹

B. Defining Lifelong Learning

This report focuses on post-secondary skills training, with emphasis on HEART – the primary provider of skills training Jamaica. It also examines private sector provision, including training by private training institutions and by private sector employers. Although this represents only part of lifelong learning, we have focused on training for several reasons. First, other studies provide (or will provide) information on formal education.² Second, post-secondary skills training programs are implemented by an array of providers and it would be impossible to provide a comprehensive analysis of the range of providers. However, this report does include summary information on the education system in order to highlight important issues in lifelong learning. It also examines the linkages between formal education and skills training so as to place training within the context of lifelong learning.

C. The Socio-Economic Context

In Jamaica, social indicators, including infant mortality, life expectancy and population growth rates comparable favorably to other lower-middle income countries. Primary school enrollment is near universal and secondary enrollment is higher than for other lower-middle income countries. However, adult literacy levels (79.9 percent) are lower than for other lower-middle income countries (average 85.3 percent).³

During the last several decades there have been some important structural shifts in the Jamaican economy. Most recently, this is reflected in a decline in the contribution of

¹ The topics presented in that report are covered but the outline has been reordered.

² World Bank, *Jamaica Secondary Education: Improving Quality and Extending Access*, Volumes I and II, Washington, DC, 2000; Gwang-Jo Kim, *Tertiary Education in Jamaica: Trends and Policy Issues for Development*, draft, World Bank, 2003; Noreen Lobban, *Strategic Outlook And Best Practices In The Dissemination Of The Community College Model In The Caribbean*, Jamaica Report, Inter-American Development Bank, 2002.

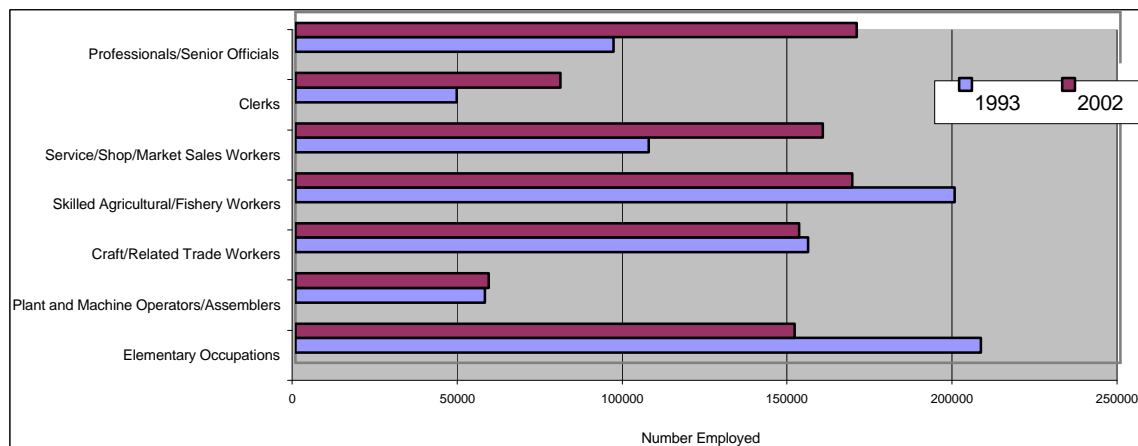
³ Comparisons are between data reported in Table 1 and data reported in the World Bank, *World Development Indicators*, 2002.

the goods producing sectors to GDP (from approximately 46.0 percent in 1990 to 31.4 percent in 2002) and a concomitant increase in the contribution of the service sectors (from 54.0 to 68.6 percent). The shift has been away from manufacturing towards services and particularly towards tourism and financial services. Between 2000 and 2002, growth rates averaged 1.0 percent. This was after several years of negative economic growth. During the period between 1990 and 2002, overall employment increased by approximately 6 percent. Employment growth occurred in all industries within the services sector. With the exception of construction and installation, employment in the goods producing sector declined.

Unemployment rates hovered around 15 – 17 percent during this period with unemployment among women consistently twice that of men. Youth unemployment remains high. In 2002, unemployment among females in the 14-19 and 20-24 year old age cohorts was equal to 61.9 and 39.5 percent, respectively. Although young males fared better, unemployment among males in these age groups were still equal to 37.0 and 18.7 percent, respectively.

Associated with the structural changes in the economy, have been significant changes in the occupational structure of the labor force. Between 1993 and 2002, absolute employment among professionals, clerks and service workers grew by over 75, 64 and 49 percent, respectively. (Figure 1) During the same period, demand for agricultural workers and elementary occupations declined by 15 and 27 percent, respectively. Employment among plant and machine operators/assemblers and craft and related trade workers remained steady. The increase in employment among professionals and senior officials was larger than among any other occupational category and exceeded the absolute growth in the employed labor force.

Figure 1. Employment by Occupation, 1993 – 2002



Source: Statistical Institute of Jamaica, Labor Force Survey, 1993 –2003

Despite the overall declines in the agriculture sector, unemployment rates among skilled agricultural and fishery workers (0.9 percent) are lower than for any other

occupational group. This suggests the fallout from the declines in that industry occurred primarily among less skilled workers. Unemployment rates among professionals/senior officials (6.1 percent) are also low relative to other occupational categories. In contrast, unemployment rates for all other occupational groups range from 12 to almost 17 percent.

Small and medium sized firms dominate the Jamaican economy and are responsible for a significant share of jobs and production. Three out of five non-agricultural workers work in firms with less than 10 employees.⁴ In 2002, approximately 34 percent of the employed labor force was self-employed.

II. The Knowledge Economy and Education and Training Responses

A. Implications of the Knowledge Economy for Education and Training

Jamaica has made significant strides in education and stands out among lower middle income countries as one of the few that has attained over ninety percent coverage for early childhood education and near universal enrollment in primary and lower secondary education. Jamaica is also moving towards universal upper secondary education. Despite strides in access to education, quality and relevance continue to be inadequate. As a result, the education system has never been particularly successful when measured by outputs such as pass rates and literacy levels. This is true of earlier graduates and is also true for students still in the system.

The following statistics underscore the urgency of building a lifelong learning strategy for Jamaica:

- Approximately two-thirds of persons under the age of 34 have no academic qualifications (as measured by examination passes). The number without academic qualifications increases to 76 percent among 35-49 year olds, 79 percent among 50 to 59 year olds and 89 percent for persons over the age of 60.⁵
- Approximately 80 percent of employed and unemployed workers and 74 percent of first time job seekers have had no vocational, technical or professional training;
- Twenty-percent of Jamaican adults are illiterate and another 15 percent possess only basic literacy skills;⁶
- There are approximately 142,000 youth who are out of school and out of work and about one quarter of these youth did not go beyond Grade 9.⁷

⁴ Pat Anderson, Labor Market Study, World Bank, 2000.

⁵ Planning Institute of Jamaica/Statistical Institute of Jamaica, Survey of Living Conditions, 2001.

⁶ These statistics mask significant gender and regional differences in literacy. Fourteen percent of females and 26 percent of males are illiterate. Over one-quarter of the adult population in the parishes of St. Mary, St James, Hanover and Clarendon and approximately 30 percent of adults in St. Elizabeth are illiterate. JAMAL, *Adult Literacy Survey*, 1999.

⁷ Kristin Fox, *Mapping Unattached Youth in Jamaica*, draft, IADB, 2003.

B. The State of Education and Training

A summary of education and training providers is given in Table 1 in order to orient the reader to the whole of the lifelong learning in Jamaica.

Table 1. Lifelong Learning in Jamaica

	Institutions And Providers	Relevant Examinations	Oversight Body
Early Childhood Education	Infant Schools and Departments Basic Schools Private Kindergartens	N/A	MOEYC National Council for Education
Primary Education	Primary Schools All Age Schools Primary and Junior High Schools Private Preparatory Schools	National Assessment Program	MOEYC National Council for Education
Secondary Education	Junior High Schools Primary and Junior High Schools All Age Schools High Schools Technical High Schools Vocational High Schools Private High Schools	Junior High School Certificate CXC GCE HSEP Level 1: Semi-skilled, entry level workers	MOEYC National Council for Education
Tertiary Education	Community Colleges University of the West Indies University of Technology Edna Manley School GC Foster College Teachers Colleges VTDI MIND Private and off-shore institutions	Academic Certification (Associate, Bachelors, Masters and Doctoral) Level 5: Professionals Level 4: Paraprofessionals Level 3: Supervisory	MOEYC University Council of Jamaica National Council on TVET HEART Trust/NTA Jamaica Council of Community Colleges
Adult Education	JAMAL Private Adult Education Institutes Various Community Development Projects and Programs Various NGO Training Programs	High School Equivalency Program	MOEYC HEART Trust/NTA National Council on TVET
Vocational Training	HEART Trust/NTA (Academies, Institutes, VTCs, SL-TOPS, Apprenticeship, Special Programs) Community Colleges Private Training Institutes Public/Private In-Service Training Community Based Programs NGO Training Programs	Level 4 Master Craftsman Level 3: Supervisory Level 2: Skilled workers Level 1: Semi-skilled, entry level workers CXC GCE	HEART Trust/NTA National Council on TVET University Council of Jamaica Jamaica Council of Community Colleges

Source: Compiled by Consultant

Basic and Secondary Education

Early Childhood Education is offered in public and private institutions to children between the ages of three to five. Eighty-nine percent of the age cohort is enrolled in early childhood programs (87.6 percent of children in the poorest quintile and 100 percent of wealthiest enrolled).⁸ In Jamaica, inequities in learning outcomes are linked to socioeconomic status and are already apparent by age 6. Students from wealthier families, who attended better quality private programs, demonstrate better cognitive and learning outcomes than children who attended public schools.⁹

Primary Education targets children aged 6-11 in Grades 1-6. Enrollment is compulsory and near universal. However, quality of provision is a concern. Average teacher/pupil ratios are approximately 32:1 and are among the highest in the Caribbean. In recent years, the percentage of untrained teachers has increased. Public schools suffer from a shortage of library books, furniture and inadequately maintained school buildings. Girls outperform boys on national assessment tests. Approximately 5 percent of the age cohort is enrolled in private preparatory schools where the quality of education is better and where, independent of social status, students do better on cognitive and academic tests than children who attended public primary schools.¹⁰

Secondary Education consists of two cycles. The first cycle is provided for students age 12-15 in grades 7-9 of All Age, Primary and Junior High, Traditional High and Technical High and private high schools. Enrollment at the junior secondary level is near universal. The second cycle is provided in grades 10 and 11 (with the exception of All Age and Junior High Schools that end at Grade 9). Enrollment in upper secondary is linked to socio-economic status with 67.6 percent of the poorest quintile as compared to 94.6 percent of the wealthiest quintile enrolled.¹¹

The secondary system is characterized by a variety of school types and examinations. Schools differ with respect to resources (human, physical and material) and poor children tend to be segregated in low quality schools. For example, primary level students from affluent families are more likely to attend better quality private schools and are better prepared for the selection examinations for secondary schools. As a result, they score higher and are placed in the more prestigious and better-financed schools while students in the poorest quintile are disproportionately represented in poorer quality schools.

Provision is marked by quality constraints including the need for improved teaching, curriculum and learning materials; improved career counseling and guidance services; promotion of student self-learning; increased resources to meet the learning

⁸ Enrollment rates among the 3 - 5 year old age cohort are actually higher than due to the fact that 2.3 percent of the age cohort is enrolled in primary school.

⁹ Lorraine Blank, *Jamaican Children and Their Families: A Situation Assessment and Analysis 1995-2000*, Planning Institute of Jamaica/UNICEF, 2002.

¹⁰ Ibid.

¹¹ Planning Institute of Jamaica/Statistical Institute of Jamaica, *Survey of Living Conditions*, 2001.

needs of youth at-risk and to improve the learning environment of schools; and increased system accountability. The Government has announced its intention to achieve universal upper secondary education by 2005; however, the number of places continues to limit access.

System Performance Indicators for Basic and Secondary Education. Quality constraints and irregular attendance have resulted in less than optimal performance of students – especially boys. These constraints, which in turn affect the requirements and create significant challenges for post-secondary education and training, are reflected in the following statistics:

- In 2001, some 57 percent of fourth grade students were reading below grade level and, despite a summer remediation program some 15,500 students (approximately 40 percent of enrollment) were retained in Grade 4.
- In 2001 mean scores in Mathematics, Science, Social Studies and Language on the Grade Six Achievement Test were all below sixty percent with girls outperforming boys in all subjects.
- In 2000, the average percent correct on the Junior High School Certificate Examination administered at the end of ninth grade was 53 percent in Mathematics and 63 percent in English.
- In 2000, less than sixty percent of students who sat the CXC examinations at the end of the upper secondary cycle passed the English language examination and seven out of ten failed mathematics examination.¹²
- In 2000, approximately 10,300 youth left secondary school after grade nine and another 33,500 after grade 11. Among those who left after Grade 11, some 18,100 left without any Caribbean Examination Council (CXC) subjects.¹³ Of these, approximately 38 percent or 12,600 students (presumably the most academically deficient) did not even sit the CXC examinations.¹⁴
- For the past several years, the University of the West Indies and the University of Technology (Jamaica's premier tertiary institutions) have found it necessary to offer remedial English classes for entering students.

¹² The source for all data on examination passes for primary and secondary students is Planning Institute of Jamaica, Economic and Social Survey of Jamaica, 2001-2002.

¹³ The Caribbean Examination Council is the regional body that certifies student achievement based on regionally administered examinations.

¹⁴ Kristin Fox, *Mapping Unattached Youth in Jamaica*, draft, IADB, 2003.

Post-Secondary Education and Training

Tertiary Education

Tertiary Education is offered in a variety of public and private institutions that differ in history, mission, philosophy, programs and structure. Several private tertiary institutions, including a growing number of offshore universities, provide undergraduate and post graduate programs. Public institutions account for approximately 86 percent of enrollment. Undergraduate, diploma and certificate students account for 95 percent of enrollment.¹⁵ Community colleges also offer vocational programs.

Tertiary enrollments increased from 19,700 in 1996 to 28,700 in 2000.¹⁶ However, the number of places continues to limit access. In 1999/2000, approximately 6,100 qualified students were not accepted.¹⁷ In 2001, 7.2 percent of 18-24 year olds were enrolled in tertiary level education institutions. Analysis of the data by consumption groups indicates that almost 17 percent of the wealthiest quintile was enrolled in a post-secondary institutions as compared with less than 2 percent of the poorest quintile.¹⁸

Tertiary institutions are under pressure to improve the quality and relevance of provision and internal efficiency. For example, enrollment in the natural sciences and technology is small relative to that of social sciences and humanities. In 2000/2001, approximately one-half of total enrollments at the University of the West Indies (Mona) were in the social sciences as compared to 14 percent in the pure and applied sciences. Even at the University of Technology, enrollment in engineering and computer science is only 28 percent and is dwarfed by management and social sciences. Similar enrollment patterns are found at the community colleges.¹⁹

Adult Education

The Jamaica Movement for the Advancement of Literacy (JAMAL) and the new High School Equivalency Examination are the main adult education programs. In addition, community colleges and private institutions provide CXC programs for persons who have not obtained the necessary CXC passes for entry into tertiary institutions or for employment.

JAMAL is responsible for the organization and management of adult education programs, including classroom-based education in 27 Learning Centers and the Workplace Learning Program implemented in conjunction with private sector companies. In 2000/2001, total enrollment in JAMAL programs was equal to 11,389 students.

¹⁵ Planning Institute of Jamaica, Labor Market Information Newsletter, 38, March 2001.

¹⁶ Gwang-Jo Kim, Tertiary Education in Jamaica: Trends and Policy Issues for Development, draft, World Bank, 2003

¹⁷ Planning Institute of Jamaica, Labor Market Information Newsletter, 38, March 2001.

¹⁸ Planning Institute of Jamaica/Statistical Institute of Jamaica, Survey of Living Conditions, 2001.

¹⁹ Gwang-Jo Kim, Tertiary Education in Jamaica: Trends and Policy Issues for Development, draft, World Bank, 2003.

JAMAL also provides learning materials, technical assistance and training of trainers to adult education programs implemented by NGOs.

HEART is partnering with the MoEYC and JAMAL to develop a *High School Equivalency Program (HISEP)* that will enable persons without CXC passes to earn a certification of educational competencies. The target groups for HISEP are persons who have not completed secondary education beyond grade 9; who have completed grades 1-11 in the formal education system but who have not received certification; or who have not completed grade 11. The High School Equivalency Certificate (HISEC) will be comparable to a Grade 11 qualification, such as the Caribbean Examination Council (CXC) Caribbean Secondary Education Certificate or the General Certificate of Education, Ordinary Level (GCE).

Adult Enrollment in CXC Preparation Courses. Considerable time and financial resources are invested by individuals, firms and government in helping students who did not gain the requisite CXC passes to prepare to retake these examinations. For example, in 2001/02, community colleges enrolled 2,300 students (31 percent of total enrollment) in CXC courses and another 990 students (13 percent of enrollment) in Caribbean Advanced Proficiency Examinations (CAPE) courses.²⁰ Further, over 1,100 participants were enrolled in CXC, GCE 'O' and CAPE subjects in the 14 private institutions that responded to the HEART providers survey. Another 700 persons completed work in the preceding year. Given the survey's low response rate, we can assume that the figure is much higher.

System Performance Indicators for Adult Education. Dropout rates at JAMAL are equal to 25 percent with average attendance equal to 65.9 percent. In 2000/01, 35 percent of Learning Center students achieved functional literacy and 1,700 persons (out of an unspecified number of participants) in the Workplace Learning Program achieved functional literacy.²¹ There is no information on what happens to graduates of the JAMAL program either in terms of employment or further education.

The HISEP program is still in its developmental stages and performance indicators are not available. Similarly, information on the outcomes of CXC preparation courses is not available.

The Public Vocational Training System

The *HEART Trust/NTA* is responsible for financing and delivering most public pre-employment training in Jamaica. Programs offered by HEART are financed through a 3 percent tax on the wage bill of enterprises. HEART also realizes some revenues from fees to trainees and/or firms.

HEART operates 10 Academies and specialized institutions, 16 Vocational Training Centers and two on-the-job training programs: the School Leavers Training

²⁰ Ministry of Education Youth and Culture, Statistics Unit.

²¹ JAMAL, Annual Report 2000/2001.

Opportunities Program (SL-TOPS) and the Apprenticeship Program. A TVET Resource Center is responsible for curriculum and program development while the Vocational Training Development Institute (VTDI) provides training for instructors and TVET professionals and managers. HEART monitors and funds (by way of subventions) approximately 100 community based training programs. The Workplace Improvement Program (WIP) assists firms in identifying training needs and implements training programs to upgrade the skills of existing employees in the firms. In year 2000/2001, WIP provided assistance to 60 firms. A total of 687 employees benefited from WIP interventions.

Enrollment. In 2002/03, total enrollment for HEART programs was 35,881. (Table 2) Academies and VTCs account for over one-half of enrollment. Enrollment grew by 61 percent between 1996/97 and 2002/2003 with the largest increases observed in the Vocational Training Centers (157 percent), Academies (68 percent), Special Programs (44 percent) and SL-TOPs (33 percent). Enrollment in the Apprenticeship Program declined by 27 percent and by 11 percent in pre-vocational (remedial) programs. According to HEART, the decline in enrollment in remedial programs was the result of a decision to reduce funding for this activity and not because of declining need.

Table 2. Enrollment in HEART Trust/NTA Training Programs

PROGRAM	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
Academies	7,607	9,261	10,934	11,324	10,494	11,527	12,770
VTCs	2,927	3,530	3,659	4,115	4,941	6,209	7,509
VTDI	1401	1,665	1,589	1,944	1,652	1,293	1,403
SL-TOP	3,476	4,236	4,121	4,022	4,265	4,448	4,630
Apprenticeship Program	980	1383	1353	1121	932	771	719
Special Programs	4,240	6,112	7,109	6,994	6,734	6,254	6,093
SDC Project	-	532	250	642	585	523	418
Pre-Vocational/Remedial/Continuing Education Programs	1,596	2,790	2,229	2,038	1,670	951	1,424
Marginal Institutions	-	777	908	868	1,025	1,073	915
TOTAL	22,227	30,286	32,152	33,068	32,298	33,049	35,881

Source: HEART Trust/NTA

Training is offered in eleven sectoral groupings with the largest concentrations of learners are in hospitality trades (20 percent), information and communications technology (20 percent) and building and construction skills (15 percent). Between 1996/97 and 2002/03, enrollment in information/ communications technology grew by 700 percent while enrollments in hospitality and beauty care grew by 150 and 130 percent, respectively. During the same period, there was a decline in enrollment in apparel/sewn products, arts/crafts and commercial skills (Table 3).

Table 3. Institutional Enrollment in HEART Trust/NTA Training Programs by Skill Area

BROAD SKILL AREAS	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
Agricultural Skills	607	624	770	880	1021	751	862
Apparel & Sewn Products Skills	3347	5205	6634	5483	3761	3150	2922
Art & Craft Skills	610	654	598	530	506	527	447
Automotive Trade Skills	1570	1807	2033	2012	1763	1995	2050
Beauty Care Service Skills	348	693	561	503	617	488	800
Cabinet Making Skills	335	416	479	500	417	479	514
Commercial Skills	2199	1981	1895	1919	1809	1570	1680
Building/Construction Skills	2587	3069	3369	3406	3822	3805	3948
Hospitality Skills	2156	3002	3499	3539	4366	4974	5318
Appliance & Industrial Mach. Maintenance/ Repair Skills	941	1070	1172	1341	1296	1659	1987
Information and Communications Technology Skills	664	1012	1412	2214	2926	4903	5137
Other Skills (Maritime, Spray Painter, Graphic Artist, Music, Printing /Book Binding, Bus Driving Skills, Day Care Mgrs.)	176	209	344	567	1059	249	578
TOTAL for all Skill Areas	15,540	19,742	22,766	22,894	23,363	24,550	26,243

Source: Source: HEART Trust/NTA

Training programs correspond to skill levels of employment: Level 1 (semi-skilled), Level II (skilled) and Level III (skilled and technician/supervisory levels of training). Almost one-half of enrollments are in Level I programs, with 12 percent in Level II programs, 7 percent in Level III and only 1 percent in Level IV. Although the absolute numbers of persons enrolled in higher-level training has increased, targets for increased enrollment in higher-level courses have not been met. In the absence of fluid movement to higher levels of training, HEART effectively functions as a “one-off” training provider rather than as a provider of lifelong learning for most of the participants.

The question then becomes how to increase enrollment in higher-level programs. Expanded provision of part time, night and weekend programs could help. The new *unit competency framework* for training and certification being implemented by the agency in September 2003 allows for more flexible attendance, which is expected to increase enrolment in higher-level programs. However, this also will take time – the implementation period to convert existing programs to the new framework runs to 2005.

The cost of higher-level programs may also be a factor. Level I programs are offered free of cost to all participants; however, fees are attached to programs above Level I. Financing policies have assumed that persons enrolling in higher-level programs would be individuals with some work experience and greater ability to pay. This has not been the pattern – most enrollees are Level 1 completers who want more training. Further, policies aimed at providing a subsidy at Level 2 and 3 have been implemented in an uneven fashion. Expansion of fee waivers and introduction of other financing mechanisms for upper level programs may be in order.

System Performance Indicators. Owing to efforts by HEART, completion and certification rates have improved over time. However, employment outcomes and cost-effectiveness are unclear.

Completion: The overall completion rate was 88 percent in 2002/03. The highest completion rates are in Academies, VTDI, JAGAS, and Special Programs and in the hospitality, ICT, commercial, agricultural, art and craft and cabinet making skill areas – all of which achieved completion rates of over 90 percent. HEART reports that the main reasons for non-completion are related to financial difficulties, pregnancy, migration and an offer of employment and that low-income trainees are over-represented among non-completers.

Certification: In 2002/03, overall pass rates for HEART trainees sitting National Council on Technical and Vocational Education and Training (NCTVET) examinations was equal to 94.2 percent. This ranged from a high of 99.0 percent among Academy graduates to a low of 83.2 percent among VTC graduates.

Employment: A HEART implemented Tracer Study of Academy and VTC Graduates (2002) reported that approximately 56 percent of Academy and VTC graduates were unemployed with 54 percent unemployment among male graduates and 58 percent for female graduates.²² Overall, 70 percent of graduates who participated in the tracer study and who had found jobs were employed in a job related to their training. However, this employment data should be treated as preliminary as the survey captured only 33 percent of the targeted population with even lower capture rates for some institutions and skills areas. Sixty-five percent of 2000/01 Special Programs graduates were either employed or self-employed.

The average age for Academy and VTC tracer study respondents was 22 years. Nationally, unemployment rates for males and females in the 20-24 year age cohort are 21.0 and 35.1 percent, respectively. Thus, the preliminary data suggests that HEART training has not been particularly successful in improving the employment outcomes of most trainees. However, it is important to underscore the point that the poor employment outcomes for HEART graduates are not solely a reflection of the training experience. HEART faces a daunting challenge in the current economic context where the labor force has grown slowly and where overall unemployment, especially youth unemployment, has remained consistently high.

Unit Costs: The unit cost of training (calculated here as total cost center expenditure over actual enrollment) varies greatly across the Academies ranging from J\$38,017 (NTEI) to J\$ 120,106 (Cosmetology).²³ Size of enrollment is a main determinant for unit costs while residential status and skill area may also contribute. For instance, unit cost per trainee was higher in two non-residential Academy institutions with the smallest enrollments (Cosmetology and Cornwall Automotive) while Portmore (J\$52,790) and Stony Hill

²² HEART Trust/NTA, *Tracer Study Report*, Projects and Planning Division, 2002

²³ In Academies trainees participate in the commercial centers as part of training and contribute to the earnings of these commercial centers. If the losses from these commercial centers were properly accounted for, the unit cost per trainee would be higher than what is reported.

(J\$49,843), both residential academies with high enrollments, recorded relatively low unit costs. Cornwall Automotive, which is a non-residential academy training automotive skills, had the second smallest enrollment and the second highest unit cost- among Academies.

At VTCs, the average unit cost of training an individual trainee was J\$50,340. As in the Academies, there is a correlation between unit cost and enrollment. For instance, Culloden and Boys Town which recorded the two highest unit cost, J\$96,757 and J\$105,143, respectively, had the smallest size of enrollment (142 and 126, respectively).

The inverse link between the size of training institutions and unit costs is consistent with international experience. This suggests the need to examine various alternatives to maximize the use training resources, including consolidation of training institutions, different organizational arrangements for learning opportunities, partnerships with other education and training establishments or firms, distance education and the use of information technology in learning and/or initiatives to promote private sector provision. Efforts to expand the size of the small VTCs, as suggested by HEART, may also be appropriate. It is important to note that these alternative strategies may not reduce overall costs. For example, distance education programs can be very expensive to establish. Analysis of the economic and social costs and benefits of alternative strategies would help to inform policymaking.

Community Colleges. Eight community colleges provide pre-university, general education, professional, paraprofessional and vocational training. All campuses also offer CXC and GCE preparation courses. Roughly 30 percent of enrolment is in non-tertiary CXC courses. In combination the community colleges have introduced almost forty different technical/vocational and continuing education courses. The NCTVET certifies graduates for some of these programs. Based on the data supplied by the MoEYC, it would seem that approximately only 4 percent of total enrollment in community colleges is in vocational areas, however, the information provided by the colleges did not appear to be complete with respect to enrollment in non-tertiary courses. (Table 4)

Table 4. Enrollment in Community Colleges, 2001/02

	Full Time	Part Time	Total	Percent
CXC	1,215	1,104	2,319	30.6
CAPE	989	3	992	13.1
Other Non-Tertiary	315	0	315	4.2
Tertiary	3,568	383	3951	52.1
Total	6,087	1,490	7,577	100.0
Percent	80%	20%	100%	

Source: MoEYC, Planning Unit.

The **University of Technology (UTECH)** provides graduate, undergraduate, diploma and certificate courses in 8 broad areas of study. UTECH was awarded university status in 1995. As part of the upgrading process, the institution reduced the

number of vocational certificate programs and is no longer a significant provider of non-tertiary learning opportunities. In 2001/02, UTECH enrolled 934 students (14 percent of total enrollment) in certificate programs at a skill level roughly equivalent to HEART Level III training. There were 870 students (13.0 percent of total enrollment) in Technical and Vocational teacher training programs.

Private Training Providers

The HEART Trust/NTA conducted a study of privately operated education and training programs to inform this case study. Despite the fact that less than half of the institutions responded to the questionnaire, the study provided important insights into the role of private training providers in lifelong learning.

The findings speak to the existence of a thriving private education and training sector. The survey shows a total enrolment of 9,571 participants. Given the high non-response rate and the non-participation of several large providers, actual enrolment is estimated at twice what is reported in the survey. Of the forty-one providers that responded, 24 had been operating for over ten years. About one-half reported that they had grown over the past three years as compared to 20 percent that had contracted. Three out of four rely on students for over 75 percent of their revenues although there appears to be some availability of Government revenues. Median costs per course were equal to J\$12,000. Over one half of private institutions provide training services to firms.

Private providers offer a range of types of courses: technical and vocational courses (54 percent), information technology (41 percent), CXC, CAPE and GCE courses (30 percent) and remedial education (22 percent). One out of four students are enrolled in business courses, 18 percent in information technology, 16 percent in technical and vocational courses and 12 percent in CXC, CAPE and GCE courses. Private providers serve a primarily young clientele - most providers indicated that the majority of participants are in the 20 to 30 age group. Females predominate in all programs except remedial programs.

Several quality concerns emerged. Only 10 percent of training providers use direct input from industry to develop training programs. Most do not have consistent entry requirements. Except for CXC and GCE courses, private providers tend to rely on internal examinations to certify learning and certify approximately 60 percent of the 270 programs/courses represented in the survey. Of the 58 technical and vocational programs represented, only 14 percent are NCTVET certified while other bodies certify 22 percent of programs. Only sixty percent provide work experience placements while 70 percent provide career guidance.

C. Employer Provided Education and Training

The findings of two surveys of employer training practice make it clear that employers are active in upgrading their workforce. One survey was commissioned to

inform this case study case study and included 99 private sector firms. This survey also assessed competency shortcomings.²⁴ The second survey was conducted by the Jamaica Employers' Federation (JEF) in 2000 and included 70 public and private sector entities.²⁵ Both surveys were generally representative of industry, size and location; however, both surveys suffered from non-response problems that mean that findings should be treated as preliminary.

Employees report that better educated employees are better equipped to perform the jobs for which they were hired. Forty-four percent of tertiary graduates and 57 percent of postgraduates were fully equipped for the jobs for which they were hired as compared to 11 percent of HEART graduates and 9 percent of high school graduates. Competency shortcomings vary by category of staff. The two outstanding competency shortcomings among professionals were with respect to foreign language capability and ability to work in teams. Problem solving, reasoning, technical ability and foreign language were the principal shortcomings among clerks. In the case of service workers and shop and market sales workers, oral delivery, reasoning and foreign language were the critical shortcomings. Foreign language competence was the principal shortcoming among agriculture/fishery and craft and related trades workers. For plant and machine operators and assemblers, reasoning competence was the weakest. The same was true for other elementary occupations although weaknesses in oral delivery were also noted.

Over ninety-percent of firms provide opportunities for employee upgrading, primarily as a mechanism to complement existing skills and competencies rather than compensate for competency shortcomings. Sixty-two percent of organizations provide education and training opportunities to complement existing competencies; 21 percent report that education and training is used to compensate for competency shortcomings.

The focus of upgrading is job-specific training. Sixty-seven percent of firms that use training programs to compensate for skill and competency shortcomings focus on job specific training. Similarly, 44 percent of employers offer job specific training as the principal means by which they seek to complement existing skills and competencies that employees bring to the workplace.

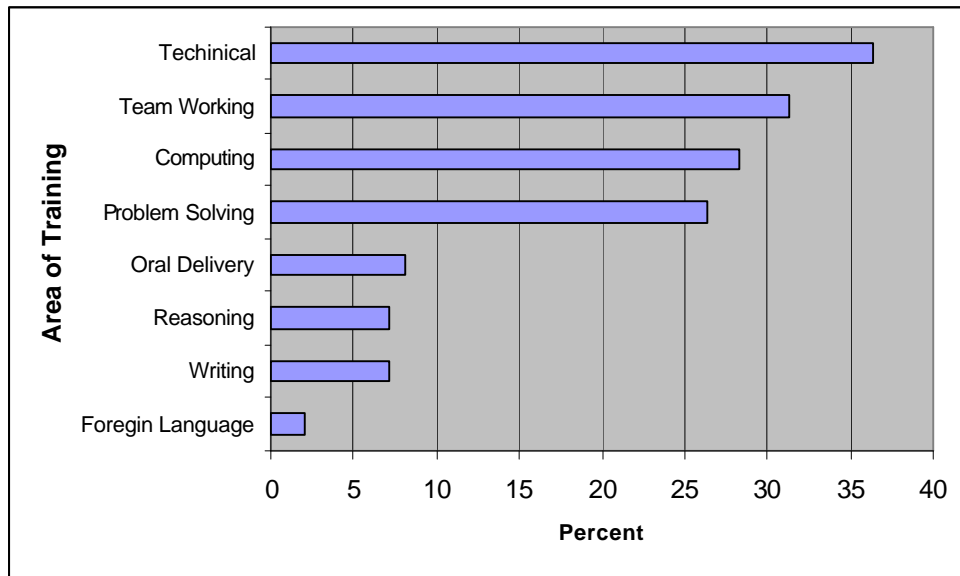
Over ninety percent of employers provide basic job related training and almost 70 percent provide advanced job related training. Considerable emphasis is also given to personal development and academic upgrading. One in five employers provide academic remediation and almost one-third support academic upgrading.

Technical training, team working and computing and problem solving are the most common competency areas for which training is provided. Oral delivery, writing and reasoning are less common. Despite the fact that foreign language was identified as one of the principal competency shortcomings, very few organizations have actually attempted to provide training in this area for their employees. (Figure 2)

²⁴ Market Research Services, Ltd., Jamaica Business Survey, World Bank, 2003.

²⁵ Jamaica Employers' Federation, State of the Industry Report: Training and Development, 2001.

Figure 2. Percent of Employers That Provide Training by Area of Training



Source: Market Research Services, Ltd., Jamaica Business Survey, World Bank, 2003.

Employers bear a significant share of the training costs. Almost 65 percent of the firms that participated in the business survey indicated that they fully subsidize the costs of training. Less than 10 percent of firms ask employees to finance more than 50 percent of the costs of the upgrading. Interestingly, smaller firms were more likely to provide full subsidies, while larger firms were more likely to partially subsidize training costs. Organizations support training and development in different ways. Eighty-six percent give paid time off for exams, 80 percent give paid time off for studies and 75 percent provide financial support for employee training and development. Employers engage in varied forms of employee development. The most common is on-the-job coaching, followed by conferences, seminars and short courses.

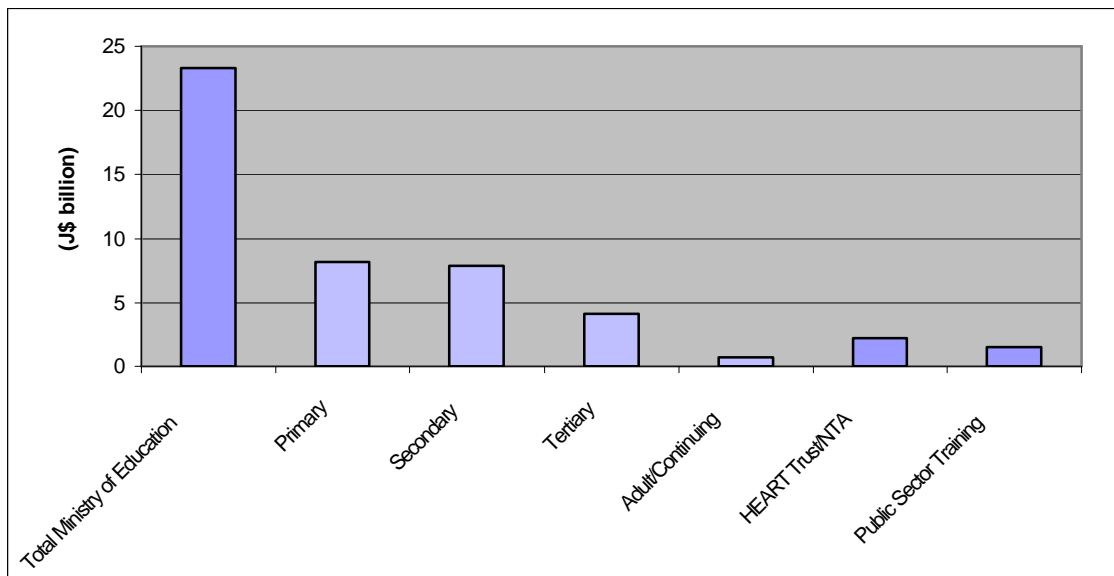
Both surveys point to the considerable resources developed to employee upgrading. It is, therefore, surprising that approximately 40 percent of firms in both of the studies did not have formal training policies and training plans. Firms that did not have a formal training policy were also unlikely to have training plans in place. The JEF study also reported that a formal training needs assessment is carried out in only half of the organizations that participated in their survey. This finding suggests that firms could benefit from assistance to help them implement training needs assessments and to develop training policies and training plans.

III. Financing Lifelong Learning

A. Public Expenditures on Education and Training

Public allocations to lifelong learning were estimated by combining reported expenditures by the MoEYC and by other ministries and agencies on selected training programs. In 2002/2003, estimates of expenditure for the formal education system were equal to J\$23.3 billion.²⁶ Public sector expenditures on selected training programs, including HEART, technical vocational education in the MoEYC, and in-service training in public sector institutions and other training programs were equal to \$4.0 billion. When expenditures on education and training are added (while subtracting MoEYC training expenditures so as to avoid double counting), total public sector allocations to lifelong learning were equal to approximately J\$27.3 billion in FY2002/03. Expenditures on training (pre-service and in-service) represent approximately 15.0 percent of public lifelong learning expenditures. The HEART Trust/NTA accounts for 8.0 percent of public lifelong learning dollars and 50.0 percent of public training dollars. At the same time, public allocations to adult and continuing education (not including HEART expenditures on remedial programs) were equal to only J\$67.6 million or 0.2 percent of total lifelong learning expenditures.²⁷ (Figure 3) Of the J\$2.1 billion expended by HEART Trust/NTA in 2002, approximately J\$1.4 billion or 64.3 percent was budgeted for direct training costs. This does not include the costs of facilities, personnel and administration.

Figure 3. Public Expenditures on Lifelong Learning, 2002/2003



Source: Planning Institute of Jamaica, Economic and Social Survey of Jamaica, 2002.

²⁶ Including administration and the operation of schools at all levels and including capital and recurrent expenditures.

²⁷ Due to differences in definitions used by this report and the Planning Institute of Jamaica, pre-service and in-service training includes TVET and tertiary level training.

B. Financing Training

Training institutions and programs managed/financed by HEART are mainly funded by a 3 percent payroll levy on all firms exceeding a monthly wage bill of J\$ 14,444. Ministries, departments of government and parish councils are exempted; however, most statutory bodies are required to contribute. Revenue from the 3 percent levy amounted to J\$2.1 billion (or 0.6 percent of GDP) in 2002/03. Interest from deposits of accumulated reserves had been a significant source of income in previous years (rewarded by high interest rates) however, their contribution to total income declined from 12 percent in 1999/00 to 5 percent in 2002/03. Academies and VTCs generate income through commercial operations, cost recovery schemes for training Level 2 or above, rental of facilities and other activities. Academy and VTC earnings accounted for 3 percent of earnings in 2002/03, down from 7 percent in 1999/00.

It is fair to say that without the three percent HEART Tax, Jamaica would not have much of a training system, no certification and standards setting system and limited curriculum development for training. At the same time, the 3 percent payroll tax rate in Jamaica is higher than training levies in other countries, which generally range from 0.5 percent to 2 percent.²⁸ In some countries high tax rates were set initially for specific objectives and when they were achieved the tax rate fell (Singapore). In other countries where initial tax rate was set too high it was revised downward (Nigeria). In Jamaica, the tax rate is among the highest in the world and has not been adjusted since its inception in 1982.

Although the benefit principle (with the assumption that employees ultimately bear the burden) generally justifies a training levy, many factors weaken the economic rationale for the three percent levy in Jamaica. First, three earmarked payroll taxes currently exist in Jamaica: 3 percent for housing, 5 percent for social insurance and 3 percent for training. It would be reasonable to expect that employers would bear a higher burden than in other countries given that employees could not absorb the entire 11 percent burden since wages cannot be lowered without limit. Furthermore, Jamaica has had a strong labor union tradition and tough salary negotiations by unions. Therefore, the training levy on labor may raise the price of labor relative to capital, therefore inhibiting employment growth. In addition, the government of Jamaica has been spending more than half of the budget on debt financing. This has adversely affected the private sector's ability to invest. Further examination of the burden of the tax, of its appropriate parameters (including tax size, tax floor and tax ceiling) and alternative (but related) uses for the training levy is warranted.

There is very little information on the magnitude of direct private sector investments in workforce upgrading. The majority of firms that were interviewed for the Business Survey were either unwilling or unable to indicate what share of their personnel budget was devoted to staff upgrading. The Jamaica Employers Federation (JEF) surveyed 67 private sector and 3 public sector entities employing a total of 22,000 persons. Based on the data reported by JEF, we estimate that the 67 firms that provided information on training expenditures spent approximately J\$219.3 million (US\$5.0 million) on staff upgrading. While it is impossible to extrapolate to all employers based

²⁸ Yang-Ro Yoon, Technical and Vocational Education and Training in Jamaica, World Bank, 2001.

on the data presented by JEF, there is no question that employers make significant investments in staff upgrading.

IV. Increasing Access to Learning Opportunities

Expanding access to learning opportunities will require initiatives along two dimensions: increased access through expanded coverage and equity and greater articulation of programs leading to clear pathways of progression for learners. Issues and requirements along each of these dimensions are discussed below.

Existing providers cannot meet the demand for lifelong learning. In 2001/02, total enrollment in HEART, JAMAL and all tertiary programs was equal to approximately 76,000 (HEART 35,900; JAMAL 11,400; all tertiary, 33,300). For example, in 2001, there were 140,000 youth who were both out of school and out of work²⁹ These numbers do not include the undetermined numbers of older unemployed persons and persons who are employed but who require and/or desire additional learning opportunities. Capacity constraints combined with Government's policy priority on youth has resulted in a focus on youth in lifelong learning with more limited opportunities for adult learners.

Access to upper secondary and tertiary education remains linked to socio-economic status. Approximately 5 percent of the 20-24 year olds from the poorest quintile are enrolled in adult/night programs as compared to about 2 percent of the wealthiest quintile.³⁰ The higher enrollment rates in adult education/night school among the poor and the wealthy could be the result of several factors. First, they suggest the degree to which the poor require remedial education. However, when considered in conjunction with lower tertiary enrollment among the poor, they might also indicate that the poor are seeking alternative pathways to training and/or tertiary education.

It has been generally thought that HEART programs serve a largely lower income clientele. In fact, this is an important justification for not charging fees for Level I training. However, analysis of data from the 2001 Survey of Living Conditions suggests that this is not the case. Rather, persons from the poorest consumption quintile represent only 7 percent of total enrollment in Academies, 12 percent in VTCs, 21 percent in on-the-job training programs and less than 15 percent in other HEART programs. Conversely, the wealthiest quintile accounts for approximately one-third of enrollments in HEART programs. The reasons for these enrollment patterns are not clear. However, one determinant is likely to be the fact that poor students have more difficulty passing the HEART admissions test.

There are considerable geographic imbalances in access to lifelong learning. Although the number of training spaces in HEART programs has increased in recent years, geographic imbalances in the number of places and the number of places as a

²⁹ Kristin Fox, *Mapping Unattached Youth in Jamaica*, draft, IADB, 2003.

³⁰ Planning Institute of Jamaica/Statistical Institute of Jamaica, *Survey of Living Conditions*, 2001.

percent of persons in the training age population continue.³¹ The geographic distribution of public tertiary institutions is also uneven with the majority of schools concentrated in urban areas and especially in the Kingston and St. Andrew Metropolitan Area.

C. Creating Pathways for Progression

Increasing portability of skills between institutions and pathways to progression is a way of increasing access to lifelong learning, especially access to tertiary education. The proposed National Qualifications Framework is meant to be a model for an articulated lifelong learning system. (Box 1)

Box 1. The Proposed Certification Framework				
LEVEL AND TYPE		SECONDARY SCHOOLS	TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	TERTIARY EDUCATION
5	Applied Degree			
4	Diploma and Associate Degree			
3	Certificate 3			
2	Certificate 2			
1	Certificate 1			

Source: HEART Trust/NTA, Technical Operating Model, 2003

Probably the best example of how articulation can work is in early childhood education. HEART and the community colleges provide Level I and II training in early childhood education and NCTVET certifies early childhood education workers. A Level I certificate can be used in lieu of some of the CXC examination requirements for entry into the early childhood teacher training programs at Teachers Colleges and a Level II certificate can be used to waive certain course requirements. Cooperative agreements between HEART's National Tool and Engineering Institute and the University of Technology – in which HEART provides Levels I through III training while UTECH offers Levels IV and V – provide another example. Similar efforts are also underway with respect to programs at the College of Agriculture, Science and Education and UTECH.

³¹ Defined as persons between the ages of 16 and 24.

V. Governing Lifelong Learning

Development of a lifelong learning strategy requires a policy framework that allows learners to move fluidly between programs and to enter and exit programs with ease. At present, the necessary policy framework does not exist. The MoEYC White Paper on Education states that learning is a lifelong process, however, that report deals only superficially with lifelong learning and places it in the context of remedial education and adult literacy and not within a framework of education and skills training for persons of all ages.³²

The objective of the HEART Act of 1982 was to establish a coordinating agency for vocational training mandated to develop a training system responsive to needs of the private sector. However, during the 1980s, the day-to-day imperatives of operating training programs diverted attention away from coordination and oversight. The HEART Act was amended in 1991 and again in 1994 to address these concerns. The 1994 amendments reorganized the HEART Trust into the National Training Agency (NTA) and strengthened the agencies functions in financing and coordinating TVET. Its primary mandate was to define a new training policy aimed at fostering a demand-driven and coherent national training system. The 1994 amendments also established the HEART funded NCTVET whose mandate is to define occupational standards, accredit training programs and certify the skills of learners and persons already in the workforce.

During the 1990s, HEART increased its focus on coordinating the national training system. However, during this period it also expanded its provision of training programs. These dual responsibilities can conflict and it is not clear that the optimal level of separation between these functions has been achieved.

At the same time, there are overlapping governance systems for lifelong learning. (Box 3) The MoEYC has overall responsibility for education and training, including portfolio responsibility for HEART. The University Council of Jamaica (UCJ) has responsibility for certifying learning in and accrediting tertiary institutions. The Council of Community colleges of Jamaica supervises and coordinates the work of the Community Colleges. In its regulatory role, the Council prescribes the conditions for student admission, approves curricula and regulates examinations. The Council advises the Minister of Education, Youth and Culture on policies relevant to the Community Colleges.

³² Ministry of Education, Youth and Culture, *Education – The Way Up*, 2000.

Box 3. Governance Structure for Lifelong Learning in Jamaica	
Agency	Responsibility
Ministry of Education, Youth and Culture	Portfolio responsibility for HEART. Policy and planning for education, administers and/or finances public education institutions
Human Employment and Resource Training Trust/National Training Agency	Coordinating, funding and developing training programs, ensuring quality provision of training and operating training institutions and programs
National Council for Technical Vocational Education and Training	Accredits training institutions and certifies participants and vocational instructors Adopts standards for occupations
University Council of Jamaica	Accrediting, awards and academic development body for degree, diploma and certificate programs in tertiary institutions
Council of Community Colleges of Jamaica	Supervises and coordinates the work of the Community Colleges
Source: Compiled by Consultant	

A Joint Committee for Tertiary Education was established by UCJ to coordinate activities and strengthen the provision of tertiary education. The NCTVET is mandated to speak to the interests of vocational training in tertiary institutions. However, the focus remains one of developing tertiary education rather than lifelong learning.

The UCJ is developing a Qualifications Framework that seeks to provide a comprehensive, coherent, nationally consistent framework for the diversity of qualifications in the tertiary education and training system in Jamaica. At the same time, HEART and NCTVET are developing a qualifications framework that is focused on levels of employment and certification of job skills that are tied to industry standards.

The rationale for two qualifications frameworks – as opposed to one framework that encompasses training and tertiary education – is unclear. The current approach has created confusion. For example, a recent draft of the Memorandum of Understanding (MOU) on tertiary education that was developed by the UCJ spoke of vocational education as “terminal,” a notion inconsistent with the fundamental principles of lifelong learning. Similarly, the NCTVET framework was originally silent on the place of certificates awarded by tertiary institutions although this omission has since been corrected.

Further, accreditation requirements for tertiary institutions may create barriers to lifelong learning. For example, all Community Colleges currently offer vocational programs and are well placed to expand provision. This would allow for increased access to training and – through an articulated system with clear pathways for progression – to lifelong learning. However, the UCJ restricts the expansion of training programs in

community colleges by withholding accreditation if more than 25 percent a college's course offerings are not at the tertiary level.

Overlapping jurisdictions and conflicting objectives of governing bodies have made it difficult to develop a coherent strategy for lifelong learning. The challenge will be to establish a governance framework for lifelong learning – one that places vocational education and training within an articulated system of lifelong learning.

B. Framework for Quality Assurance

Accreditation. Accreditation is a process for ensuring quality in education and training programs by determining a standard of quality and performance for minimal acceptability. The UCJ is the accrediting body for tertiary institutions while the NCTVET accredits training institutions.

The NCTVET establishes minimum standards of eligibility for recognition and confers both institutional and programmatic accreditation. Accreditation has moved more slowly than anticipated. Although all HEART institutions are accredited, to date, only two private training providers have received accreditation. As a result, a new model of accreditation has been introduced in which the emphasis has shifted from accreditation based on inputs to accreditation based on outcomes. Initial indications are that there is considerably more interest among private providers in accreditation under the new system.

Certification. The Caribbean Examinations Council was established in 1972 under Agreement by the Participating Governments in the region to conduct examinations and awards certificates and based on the results of these examinations so conducted.³³ CXC examinations are used for entry into tertiary institutions and for employment. The Caribbean Secondary Education Certificate (CSEC) examination is offered for students at the end of the secondary education cycle while the Caribbean Advanced Proficiency Examinations (CAPE) is offered for post-secondary candidates who require certification and advanced standing. CXC examinations and certification are accepted regionally and internationally.

The CXC examination system raises concerns to the degree that it represents a barrier in the school-to-work transition as well as a barrier to accessing lifelong learning opportunities. The High School Equivalency Program (HISEP) is being developed partly in response to these concerns. As discussed in Section I, when fully operational HISEP will provide a High School Equivalency certification for persons who did not finish secondary school and/or who did not pass CXC examinations.

HEART and NCTVET built a training and certification framework similar to the one first developed for Great Britain. The system had some outdated ideas about

³³ The Participating Territories are: Anguilla, Antigua and Barbuda, Barbados, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts/Nevis, St. Lucia, St. Vincent & The Grenadines, Trinidad & Tobago and Turks & Caicos Islands.

occupations versus jobs and the progression of individuals through a ‘craft-oriented’ hierarchy of jobs in which one moves from entry-level to higher skill levels. The framework gave inadequate recognition to the different levels of basic education that are required to enter different jobs and tended to exclude from certification certain jobs that are narrow in scope and do not require a great deal of educational achievement. In addition, the old system has not achieved widespread recognition and use in the workplace.

HEART and NCTVET are developing an updated qualifications framework that is focused on industry standards (as distinguished from occupational standards) and certification of job skills that are tied to industry standards. The framework describes National Qualifications (NQs) at five levels of skill, autonomy and responsibility. Competence will be assessed and certified for discrete skills, rather than for the entirety of an occupational level. Certifications will accumulate toward an NQ, which will certify an individual’s competence to perform a particular job rather than a broader and sometimes vague ‘occupation’.

VI. Transforming Learning

A. Equipping Learners with the Skills and Competencies That They Need

The traditional education and training system was engineered to suit a colonial plantation economy and society. The traditional education and training system was elitist and exclusionary; relied on rote learning and recitation; depended on corporal punishment as a means of ensuring discipline and to enforce conformity; and promoted a dichotomy between vocational career education and general education. The system produced workers who were obedient and dependent on instructions. The result was an uncompetitive workforce.³⁴ The global economy requires a different set of skills and competencies than were previously necessary. What is required are not only literacy and numeracy, but also the ability to take initiatives, to think critically and to work well in groups. The global economy, in which technology changes rapidly, requires continuous upgrading of skills in which learners take responsibility for their own learning.

Achieving the necessary shift in workplace competencies is not possible until the basic competencies in literacy and mathematics have been achieved. However, as indicated above, a significant number of students progress through the education system without achieving the literacy and numeracy levels required by the workplace. This is further evidenced by performance on the HEART admission test, which requires Grade 9 competency.³⁵ Less than half of those tested³⁶ pass the examination. This high failure rate

³⁴ Country Paper: Jamaica, Prepared for the Regional Technical Workshop "Competency-Based Curriculum Design," TVET Council, November 2001.

³⁵ Grade 11 completers with at least two CXCs are exempted from sitting the HEART Trust/NTA entrance examination

³⁶ Youths aged 16 are allowed in community-based programs and those without grade 9 competency can participate pre-vocational/remedial and SKILLS 2000 programs.

on the examination is especially disturbing considering the fact that most applicants completed 11th Grade.

HEART offers remedial programs for applicants who score at least at the 7th grade level. The remedial program usually lasts between 6 to 12 months. There is no tuition and participants receive a stipend. Applicants functioning below the 7th grade level are referred to JAMAL.

Moreover, instructors in Academies and VTCs report that even the applicants who passed the entrance exam very often do not have sufficient basic competencies. Therefore, training has to be adapted for the deficiencies of the learner. Even in the institutions such as Academies and VTCs, instructors frequently have to spend time on simple multiplication and division in order to teach the relevant calculations for skills training. The lack of basic competency among learners seems to be a serious obstacle to the quality and effectiveness of training.

Employer Demands. As the HEART Corporate Plan for 1996 –2000, points out, employers in Jamaica want employees with the following competencies:

- Sufficient general ability, specific aptitude and sufficient interest in the job tasks to master them,
- Strong basic literacy, communications and numeracy skills,
- The ability and willingness to learn and to change with circumstances,
- Flexibility, self discipline and trustworthiness,
- The ability to think through situations, to analyze problems and test solutions,
- The ability to get along with others and work in a team, and
- The desire to join others in collective effort toward shared goals.

The business survey conducted for this case study indicates that employers' demands are essentially unchanged. The specific competencies needed within organizations vary by category of staff – professional, clerical, service, agriculture, craft, plant and machine operators and elementary occupations – but common themes emerge across categories: technical competency, team working, problem solving and reasoning skills are the principal need areas identified by employers.³⁷

Demand for tertiary graduates – as reflected in the significant increase in employment among professionals and senior officials and the relatively low unemployment rates among this group – has increased. In response, there has been a rapid expansion of opportunities at the tertiary level, partially as the result of the increased presence of offshore universities in Jamaica. Demand for Jamaican tertiary graduates in the global economy, as evidenced by the migration rates among this group, is also high.

³⁷ Nine-nine private sector firms (out of a total of 120 that were to be included) were interviewed. The survey firm encountered significant difficulties, as the level of resistance to participation among firms was high. Participating firms varied with respect to size and industry representation. Given the smaller than expected size of the sample, it was generally not possible to disaggregate responses by industry or by size of firms. Market Research Services, Ltd., Jamaica Business Survey, World Bank, 2003.

The fledging Labor Market Information System does not yet provide sufficient information on skill and competency gaps in the economy. In the absence of this type of information it is difficult for planners to fine-tune training and other learning provision to the changing requirements of the economy. As a result, it is not clear how well elements of provisions and policy are linked to the broader education, skill and economic dynamics of the economy.

Another concern is that it is difficult to quickly reorient institution-based training in response to changing labor market demands and to calibrate the response to actual demand. For example, between 1996/97 and 2000/01, enrollment in HEART agricultural programs increased by 68 percent despite a national trend towards declining employment in agriculture. Some of this new enrollment is in non-traditional agriculture and emerging agriculture and agro-processing markets, however, a good share remains in more traditional agriculture skills that are no longer in high demand. Similarly, employment in the apparel sector has contracted significantly in recent years.³⁸ There has been a concomitant 10 percent decline in enrollment in HEART apparel programs; however, HEART continues to devote approximately 10 percent of training resources to apparel and sewn products skills.

At the same time, between 1996/7 and 2000/01, enrollment in the hospitality trades increased by over 100 percent while the overall unemployment among graduates from hospitality training programs is 31.8 percent. While this might, as HEART maintains, suggest a need for more aggressive placement services, it also suggests that HEART may have responded too aggressively to the perceived needs of the industry and to the demands of applicants who, in the face of asymmetrical information, are willing to wait for up to three years for a place at Runaway Bay.

*Demands of the Global Labor Market.*³⁹ International migration from Jamaica to other countries, especially North America, Canada and the United Kingdom has had multiple impacts on Jamaica – both socially and economically. It is estimated that almost 1,000,000 Jamaicans began legal residents in these countries during the last half of the 20th century. The impact of this migration has been significant. It has served to reduce population growth. In addition, remittances (equal to US\$809.4 million in 2001) now represent the second largest single source of foreign exchange for Jamaica. International migration may have also helped to keep a lid on unemployment, which remained fairly steady at approximately 15 to 16 percent over the decade of the 1990s.

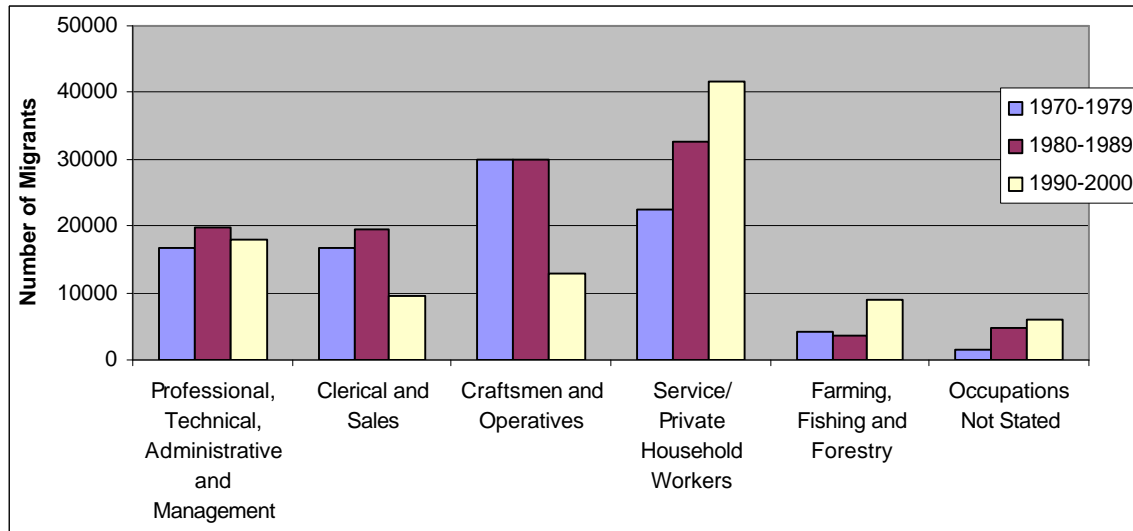
Among those immigrants who were in the labor force, the largest single group was made up of service workers, including private household workers. Due to changes in immigration policies this group represented a growing share of migrants. Consistently, around 18 percent of labor force participants who migrated were among the professional, technical, administrative and management occupations. Craftsmen and operatives

³⁸ Although employment in the apparel industry is not reported in the above statistics, the apparel industry has contracted as a result of the closure of many free zone manufacturing firms.

³⁹ The statistics reported in this section are taken from Planning Institute of Jamaica, Migration and the Jamaica Labor Force, 1953 – 2000, The Labor Market Information Newsletter, 45, 2003.

declined from 32.8 percent in the 1970s to 13.4 percent in the 1990s. (Figure 4) The level of migration among Jamaican workers highlights the need for Jamaican education and training institutions to prepare workers for the global economy.

Figure 4. Migration to North America by Occupation Group, 1970 – 2000.



Source: Planning Institute of Jamaica, Migration and the Jamaica Labor Force, 1953 – 2000, The Labor Market Information Newsletter, 45, 2003

Migration also has implications for the demand for education and training and lifelong learning requirements. Between 1970 and 2000, approximately 670,200 persons migrated to the United States and Canada. Approximately 45 percent of these were classified as workers, while the other 55 percent were housewives, children, students and others with no occupation. Between 1970 and 2000, approximately 250,000 persons under the age of 20 migrated to North America. The migration of school age Jamaicans has helped to reduce the pressures on the already overburdened education and training systems. Without this out-migration, gross enrollment rates at all levels of the formal education system would be significantly lower.

From a global perspective, migrants contribute to increased world welfare, including welfare in Jamaica. Thus, there are both direct and indirect benefits to Jamaica from the migration. However, there also appear to be some short-term costs as a result of the continuing need to replace workers. A World Bank study on international migration, remittances and the brain drain finds that Jamaica does in fact suffer from the brain drain.⁴⁰

⁴⁰ Adams, R. *International Migration, Remittances and the Brain Drain: A Study of 23 Labor-Exporting Countries*, World Bank, Washington, D.C. , 2003.

B. Changing the Way People Learn

New competencies require new approaches to teaching and a move from teacher centered to student centered learning. The new pedagogical model represents a paradigm shift in which teachers are viewed as facilitators rather than instructors. (Box 4)

Box 4. Characteristics of Traditional and Lifelong Learning Models	
Traditional Learning Model	Lifelong Learning Model
The teacher is the source of knowledge.	Educators are guides to sources of knowledge.
Learners receive knowledge from the teacher.	People learn by doing.
Learners work by themselves.	People learn in groups and from each other.
Tests are given to prevent progress until students have completely mastered a set of skills and to ration access to further learning.	Assessment is used to guide learning strategies and identify pathways for future learning.
All learners do the same thing	Educators develop individualized learning plans.
Teachers receive initial training plus ad hoc in-service training.	Educators are lifelong learners. Initial training and on-going professional development are linked.
“Good” learners are identified and permitted to continue their educations.	People have access to learning opportunities over a lifetime.
Source: World Bank, Lifelong Learning in A Global Economy, 2002.	

There is general consensus that the paradigm shift has not yet occurred in the formal education system. Despite the efforts of multiple externally funded projects, teachers continue to rely on the old “chalk and talk” methodologies. HEART has adopted strategies to address similar deficiencies in the training system, including: infusion of curricula with employability content; instructor training; focus on modularized unit competencies; emphasis on the practical application of subjects; use of new information and communication technologies to support pedagogy; and the introduction of policies which require regular assessment of instructors (by participants, by peers and by managers).

Modularized training, which breaks training into self-contained skill development units, is also an important strategy. It permits flexible enrollment and labor market entry and is, therefore, conducive to part time training and to workshop arrangements that appeal to a working audience. The modular system will also promote lifelong learning over relatively short periods as workers can continuously upgrade their knowledge and finally achieve the respective certificates. When HEART implemented this approach in 1996 it did not have the

flexibility it was intended to have because the agency grouped various modules and administered a centralized assessment system. The modified framework now being implemented will correct these problems.

C. Career Guidance and Counseling

Career guidance and counseling can help learners and their families make informed choices that are not restricted by prejudice or misinformation. However, a fundamental shift will be required to change the existing mentality from guidance counseling to career counseling. The World Bank funded Reform of Secondary Education Project II is financing development of a Guidance and Counseling Policy and testing and measurement instruments for the secondary system. HEART, through its Professional Guidance Information System (PROGIS), is working in both the formal education and the training systems to develop career counseling, including development of a national program for career development and to train professionals and develop career counseling materials.

PROGIS also provides professional services to tertiary institutions, especially the teachers colleges. In this regard, the objective is to have career guidance integrated into teacher education programs so that teachers leave with familiarity with the concepts of career guidance. PROGIS also trains secondary school staff to implement upgraded guidance programs and, where there is no guidance program in a school, PROGIS staff work directly with students. A diploma program in Career Development has been developed in co-operation with the VTDI.

D. Gender, Education and Technology

In Jamaica, as in other countries in the English speaking Caribbean, females outperform males throughout their school careers. Girls stay in school longer than boys, although the enrollment gap between boys and girls has declined over time. Females outnumber males at the tertiary institutions by approximately 2:1. In this context, Jamaica could realize significant gains by improving the learning outcomes of boys.

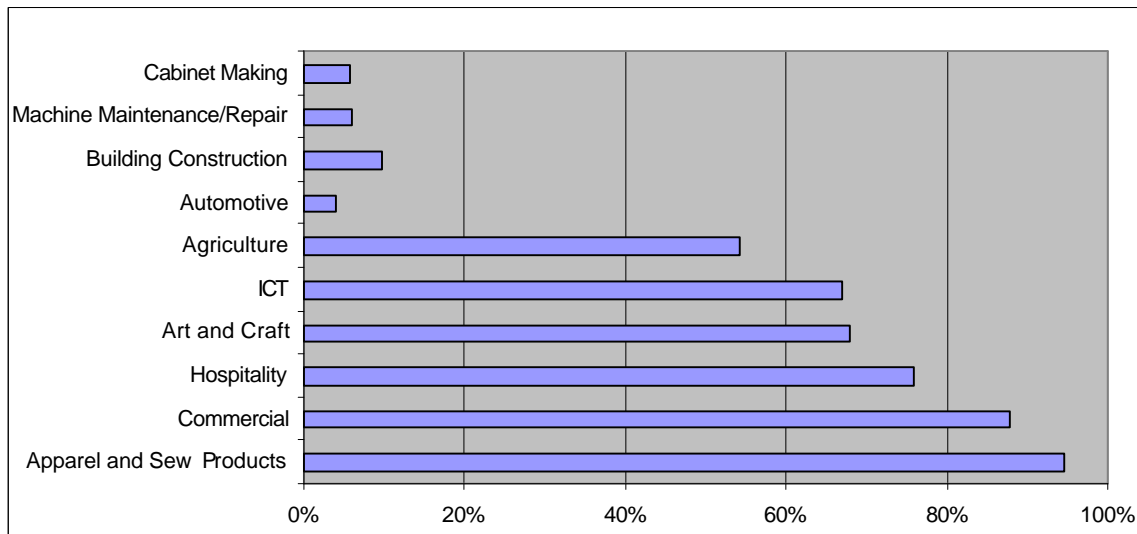
Frequently, parents do not place as much emphasis on education for boys. This is especially true if the boy is not performing well. Further, as participants in a focus group with HEART trainees pointed out, boys are not encouraged to continue their education. Rather, boys are expected to get a job to help support their families while girls are encouraged to continue their educations and to engage in a process of lifelong learning. As one male participant stated, “We are expected to be earners, not learners.”

In the past, male dominated occupations, including agriculture, craft, plant and machine operators, absorbed large numbers of relatively low-skill males. As a result, there was less incentive for males to complete secondary school or to engage in post-secondary education and training. Despite their poorer academic performance, labor

market outcomes for males have been consistently better than for females. However, the global economy will increasingly demand the competencies that boys have traditionally had difficulty mastering.

At the same time, gender segmentation in vocational programs continues. Despite some successes in improving gender equity, HEART programs continue to remain highly gender segregated. (Figure 5) The same is true in vocational programs in secondary schools. This raises two concerns. First, although females dominate enrollment in education and training programs, females suffer higher unemployment and lower wages. The gender disparity in employment and wages might be caused partly by outright discrimination in the labor market and partly by concentration of females in employment and training programs for “pink collar” occupations with lower prospects of employment and lower wages. Training segregation may also reflect discrimination against women in the labor market.

Figure 5. HEART: Percent Female Enrollment by Skill Areas, 2000/01



Source: HEART Trust/NTA, Projects and Planning Division

At the same time, the lower enrollment among males in the service sector is worrying given that the service sector is targeted as one of the engines of growth for the Jamaican economy. It is, at least in part, a function of boys’ poorer academic performance. It also reflects the perception that masculinity is compromised by service and office work. Vocational training in male-dominant trades such as construction also poses challenges due to the perception that manual work lacks value, is underpaid and is socially stigmatized. Many young Jamaican males opt for a life of “hustling” when lower-level service/office work or manual work is the only available employment.⁴¹

⁴¹ From the legacy of the slave-based plantation economy and a post-colonial experience in earlier days, agricultural employment is also unpopular in Jamaica, especially among males, and large enterprises seem to be still often perceived as essentially similar to the plantation.

F. Partnership with the Private Sector and Civil Society

Structurally, there are a number of avenues for private sector involvement in the training system. Employers are represented on the Boards of all education institutions, on the HEART Trust/NTA Board, on the Boards of governing institutions and on substantive committees related to certification and standards setting. The Private Sector Organization of Jamaica has also been consistently involved in dialogue on training with HEART Trust/NTA and the tertiary level education and training.⁴² However, private sector involvement remains weak in relation to the larger policy issues of the training system.

To date, the HEART Trust/NTA has forged partnerships with 1,100 Jamaican firms that involve on-the-job training programmes, traineeships and apprenticeships. At least 85 NGOs and community-based organizations are now partnered with the organization to provide training that addresses the needs of individual communities. All of the other institutions in the lifelong learning system have also initiated partnerships with NGOs, the private sector in Jamaica, international corporations, international development agencies and overseas universities. These partnerships are too numerous to list, but include multiple projects to enhance the quality and effectiveness of tertiary education, provision of on-the-job and cooperative education; exchange programs, private sector scholarships and a wealth of other partnerships.

A critical question for the future is how to expand these partnerships. A related question is whether and how partnerships can be utilized to increase the flexibility and cost-effectiveness of post-secondary training.

VII. THE WAY FORWARD

The Jamaica case study focuses on post secondary training as an element of lifelong learning. At the same time, the Jamaica study highlights the challenges that countries – especially developing countries – face in building a holistic lifelong learning strategy. The Jamaica case study also points to the need to look at training in the context of lifelong learning. To do otherwise makes it impossible to move beyond a narrow view of “vocational education.”

HEART, the primary provider of skills training in Jamaica, has made inroads in reorienting training and placing it within a lifelong learning framework, modernizing systems and approaches and developing a quality assurance framework. The experiences of HEART and other education and training providers in Jamaica highlight common challenges that countries face in building a lifelong learning strategy and in reorienting training systems to the needs of lifelong learning for the global economy: the requirement to improve basic competencies, access and equity constraints; a focus on youth with limited opportunities for ongoing learning among older adults; determination

⁴² Employers in Jamaica are today organized in a number of bodies, JEF, JCC, JHTA, JEA, JMA and SBAJ. Today, employers’ organizations form the Private Sector Organization of Jamaica (PSOJ).

of appropriate role of the different providers; the struggle to develop cost effective, flexible and demand driven interventions; difficulties in changing the way instruction is provided; resource allocation and fiscal sustainability; and identification of appropriate governance structures. The Business Survey conducted as part of the case study and the JEF training survey also points to the need for expanded human resource development planning services to employers to promote productivity and lifelong learning.

It was agreed that specific recommendation regarding the way forward would be developed through a collaborative effort of stakeholders in the lifelong learning system, including learners, providers and the private sector. In support of this effort, HEART will convene a stakeholder workshop with the objective of articulating strategies to promote lifelong learning and to develop a coherent lifelong learning system. Recommendations on specific strategies must wait for the stakeholder workshop. However, certain substantive priorities have emerged. The mandate of the workshop will be to address these (and any other priorities that will be identified) and to leave the workshop with prioritized recommendations.

What does the national education and training system, including its formal and non-formal components, need to do to support knowledge-based economic growth?

Improving basic competencies, especially literacy and numeracy is fundamental. A large segment of the working age population needs additional core skills to enhance employability. The long run strategy (via reforms that are already in progress) is to reduce the flow of students leaving the formal school system without the basic competencies, to provide a high school equivalency program and certification for those who leave without the requisite competencies and/or certification and to strengthen adult education programs with support from the IADB Youth Development Program. Other strategies may be required to expand the reach of programs for individuals who leave school without basic competencies.

The focus of education and training needs to move from youth to learning for adults of all ages. This will require parallel strategies to increase access to lifelong learning and to make learning more attractive to mature adults, including “clearing the path to learning” so that adult learners can access programs. It would also require a more rapid adjustment of HEART programs towards higher-level training.

Employers make significant investments in education and training, however, it is not clear that these investments generate the highest possible returns. Improved human resource development planning, in the context of productivity-enhancement and human resource management and lifelong learning, could increase returns to investments.

A public education campaign would help to increase the demand for lifelong learning, especially among mature persons. These could include public campaigns that sensitize people to the disadvantages of remaining without basic skills and that emphasize the benefits of continuing education and skill acquisition.

How can Jamaica promote lifelong learning and what challenges does it face?

The most significant challenges will be to expand access and make education and training more flexible and responsive to emerging trends in the economy.

Increasing access will require initiatives on several fronts. Possibilities include: (i) better use of scarce resources could occur through rationalization of existing programs offered by secondary schools, HEART and tertiary institutions; (ii) following the MoEYC model of securing places in private high schools to expand access to secondary education, HEART could secure places in private training institutions; (iii) better vertical articulation of general, technical and vocational programs across secondary, post-secondary and tertiary education would ensure pathways of progression and remove barriers to post-secondary and tertiary education and training; and (iv) expansion of distance learning and IT based learning would also increase access although it is important to recognize the high investment costs associated with expansion of these learning modalities.

Life-long learning requires a flexible and dynamic supply of learning opportunities. However, institution based training can be slow to adapt to changing economies. At the same time, international experience shows that most of skill demand and training supply can be readily matched through in-service training in a favorable policy environment.⁴³ Detailed analysis of the policy environment as it relates to education and training is needed to identify policies to encourage private sector investments. Strategies to maximize returns to investments in education and training could include, inter alia, expansion of the HEART Workplace Improvement Program, initiatives by the Private Sector Organization of Jamaica, the Jamaica Employers Federation or a combination of these. In addition increasing access to post-secondary learning, and securing places from private education and training providers could also introduce flexibility into the training system. This stems from the fact that they do not require capital investments and because they can be expanded and contracted as required.

Jamaica will have to decide whether the emphasis on pre-employment training is appropriate. International experience indicates that the rates of return to pre-employment vocational training are low and that training for youth generally has little or no positive impact on employment prospects or long-term earnings.⁴⁴ In most cases, youth benefit more from improving basic literacy, numeracy and social skills, learning how to function in the workplace, determining vocational and occupational interests and practicing these skills in a real-life setting.⁴⁵

⁴³ Amit Dar , Fred Fluitman , Indermit S. Gill (Ed.) Vocational Education and Training Reform: Matching Skills to Markets and Budgets Oxford University Press, 2000.

⁴⁴ Amit Dar and Zafiris Tzannotos, Active Labor Market Programs: A Review of the Evidence from Evaluations, World Bank, Social Protection Discussion Paper, 1999.

⁴⁵ Gary Barker and Miquel Fontes, *Review and Analysis of International Experience with Programs Targeted on At-Risk Youth*, World Bank, LASHC Paper Series No. 5, 1996.

At the same time, the community colleges are positioned to increase their role in the provision of vocational, technical and professional programs. Several issues remain. First, is the need for a general expansion of places. Related to this is the issue of how community colleges can expand non-tertiary programs in the face of the University Council of Jamaica accreditation requirements. Finally, initiatives to move the colleges towards competency based training would need to be expanded. It is not clear what administrative and quality upgrading, if any, would be required to complement initiatives to begin under a proposed IADB Post-Secondary Education Program.

Given limited resources, what type of governance framework promotes lifelong learning for people in general and disadvantaged groups in particular?

Jamaica would benefit from a more coordinated governance framework for lifelong learning. One option that Jamaica might explore would be, following the model adopted in New Zealand (the New Zealand Qualifications Authority), to merge the governing bodies into one unified entity. Alternatively, separate governing bodies would need to move towards one unified qualifications *framework*, as in Australia, that provides for articulation across secondary and post-secondary education and consistency of approaches to cost sharing and financing.

Examination of the benefits, risks and associated human and financial costs of two other governance issues would provide information to guide thinking about the organization of a lifelong learning system: (i) separation of the HEART training agency and training provider functions, including analysis of whether it is appropriate for HEART to divest itself of all or some of its direct training responsibilities, the appropriate form and mechanism for divestment and the ongoing role of the training agency in policy, financing, regulation and quality control; (ii) decentralization of training provision – with lines of authority established regionally in contrast to the current “product line” organization.

How can financing of lifelong learning be inclusive, affordable and sustainable?

Cost efficient mechanisms for delivery of training are required. In this context, decisions will ultimately have to be made as to whether institutional training, especially residential training and training in smaller high unit cost training facilities, is justified and sustainable. At the same time, international experience suggests that vocational training is more effective if the delivery is competitive.⁴⁶ Partnerships with employers and public and private education and training providers will need to be assessed with respect to their feasibility as cost effective alternatives.

Shifting more of the financial burden of training to the learner with associated targeted fee waivers for low-income learners would promote equity. This

⁴⁶ Amit Dar , Fred Fluitman , Indermit S. Gill (Ed.) Vocational Education and Training Reform: Matching Skills to Markets and Budgets Oxford University Press, 2000.

would imply introduction of fees for HEART Level I programs and a combination of need based loans, fee waivers, stipends and work-study for all levels of training. This would be consistent with the model already adopted for tertiary education.

A review of the parameters of the HEART 3% levy is recommended. This review should determine whether the basic parameters, such as tax floors and ceilings and credits for on the job training should be adjusted and whether mechanisms to periodically adjust the tax rate should be introduced.