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Abstract

This literature review synthesizes what is known about the relationships between education, training and the labour market in Ghana. It focuses upon the returns to education and training in both formal and informal sectors of the economy. The implications of recent trends in these returns are discussed. Characteristics of the broader labour market environment in Ghana, and of pathways from education and skills training to employment, are identified. Priorities for research are indicated.

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1. Introduction[1]

The Ghanaian literature contains a number of useful papers related to the field of education, training and the labour market (for example, Ahadzie, 2003; Akyeampong, 2005, 2002; Amankrah, 2001; Aryeetey et al., 2004; Baah-Nuakoh, 2003; Boeh-Ocansey, 1995; Botchie and Ahadzie, 2004; Korboe, 2001a, 2001b). However, most of the quantitative analytical work regarding returns to education has been done conducted by researchers from the 'north'. The purpose of this literature review is to summarise what is known about the relationship between education, training and the labour market in Ghana.[2] It assumes that the reader already has some basic understanding of the economic and labour market context, the current education and training system, and the progress towards the MDGs in Ghana. However, a very brief overview of these contexts appears below. For more detailed information, see Palmer (2005a; 2005c).[3]

1.1 Economic and Labour Market Context

Ghana is a predominantly rural, low income country with a population of 20.7 million (2005) (World Bank, 2005) which is expected to grow on average 2.1 per cent a year between 2000-2015 (UNDP, 2002). Ghana had a GNI per capita of US$380 (World Bank, 2005). The structure of Ghana's economy, with an over-reliance on primary products (eg. agriculture, timber, gold) and a large informal economy, has changed little since independence in 1957.[4] The most recent Ghana Living Standards Survey (GLSS) (fourth round, conducted in 1998/99) estimated that total informal employment in Ghana was 86.3 per cent (74.1 per cent in urban areas and 91.9 per cent in rural areas) (table 1).[5] Of total informal sector employment in urban areas, 75 per cent is represented by nonfarm activities with the remaining 25 per cent agricultural activities. In rural areas, the situation is reversed: 74 per cent of total rural informal employment is agricultural, with 26 per cent represented by nonfarm activities. Women are more likely to be found in Ghana's informal economy compared to men: 93.8 per cent of all women work in the informal economy, compared to 77.3 per cent of all men (table 1). Most new jobs are created in the informal economy, with formal sector employment growth largely stagnant.

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[1] This review has benefited from the comments of Professor Kenneth King (University of Edinburgh) and Dr David Korboe (Associates for Change, Ghana).

[2] This literature review synthesises current thinking of these relationships and also draws on, and updates, Palmer (2005c).

[3] See also GoG (2003) and (2005a) for the Ghana Poverty Reduction Strategy Papers.

[4] For a background on the informal economy concept, character and ways it is measured, see Palmer, 2004b. See also Palmer 2004a for a discussion on micro-enterprise in Ghana.

[5] We treat here agriculture as part of the informal economy. See Palmer (2004b) for a discussion on this.

Table 1: Type of employer for population aged 15-64 years in the last 7 days, by locality and sex (percent) (1998/99)

	Urban			Rural			Ghana		
Main employer	Male	Female	All	Male	Female	All	Male	Female	All
Total formal employment (a) + (b)	**42.5**	**12.5**	**25.9**	**13.9**	**3.2**	**8.1**	**22.8**	**6.2**	**13.7**
(a) State-owned company	17.5	6.5	11.4	6.3	1.8	3.9	9.8	3.3	6.2
(b) Private formal	25	6	14.5	7.6	1.4	4.2	13	2.9	7.5
Total informal employment (c) + (d)	**57.5**	**87.6**	**74.1**	**86.1**	**96.8**	**91.9**	**77.3**	**93.8**	**86.3**
(c) Self-employment (agriculture)	22	16.2	18.8	71.1	64	67.2	55.9	48.7	52
(d) Private informal & self-employment (non-agriculture)	35.5	71.4	55.3	15	32.8	24.7	21.4	45.1	34.3
Sample size	1195	1472	2667	2668	3152	5820	3863	4624	8487

Source: GSS (2000, p. 30, table 4.5)

1.2 Education and Training System

It was the 1986/87 Education Reforms that shaped the structure of the current education and training system in Ghana from the 6-4-5-2-3/4 to the 6-3-3-3/4 system in 2005.[6] This meant that pre-tertiary schooling could take up to 17 years prior to the 1986/87 reforms, compared to the 12 years under the current system. Basic education is defined as both primary and Junior Secondary School (approximately age 15/16), representing years 1 to 9 of the schooling ladder.[7] Post-basic education is defined as Senior Secondary School (SSS), Technical and Vocational Education and Training (TVET),[8] both formal and informal, and Tertiary level education (principally in universities and polytechnics). The recent *White Paper on The Report of The Education Reform Review Committee* (GoG, 2004a) is due to make some radical changes to this system, commencing in 2007.[9]

1.3 Progress Towards the Meeting the MDGs in Ghana

The most recent Annual Progress Report for the Ghana Poverty Reduction Strategy (GPRS) took place in 2004 (see GoG/NDPC, 2005, pp. 150-170). Table 2, below, presents the reported progress to achieving the MDGs up to this date.

[6] See Palmer (2005c), section 3.3.1. The norm now at university level is four years, designed purposely to compensate for the shortening of the secondary level.

[7] The definition of 'basic education' is under review. The proposed education reforms intend to extend 'basic education' by two years (with the addition of two years of pre-school), making basic education 11 years in length (2 pre-school; 6 primary; 3 JSS) (See Palmer, 2005c), section 3.11.

[8] The GPRS still uses the term 'TVET', instead of the now, more fashionable 'Skills Development' (cf. World Bank, 2004a).

[9] See Palmer (2005c), section 3.11, for a discussion and critique of the new reforms.

Table 2. Progress Towards the Meeting the MDGs in Ghana

Goal/Target	Will target be met?	State of supportive environment
Goal One: Extreme Poverty and Hunger		
1: Poverty (halving extreme poverty)	Probably	Strong
2: Hunger (halving the proportion of people who suffer from hunger)	Unlikely	Fair
Goal Two: Universal Primary Education		
3: UPE by 2015 (achieve universal access to primary education by 2015)	Probably	Strong
Goal Three: Gender Equality		
4: Eliminate gender disparity in Primary and Junior Secondary Education by 2005	Unlikely	Fair
Goal Four: Under-Five Mortality		
5: Reduce under-five mortality by two-thirds by 2015	Probably	Strong
Goal Five: Maternal Mortality		
6: Reduce maternal mortality ratio by three-quarters by 2015	Unlikely	Fair
Goal Six: Combat HIV/AIDS and Malaria		
7: Halt and reverse the spread of HIV/AIDS by 2015	Potentially	Strong
8: Halt and reverse the incidence of malaria	Lack of data	Fair
Goal Seven: Ensure Environmental Sustainability		
9: Integrate the principles of sustainable development into country policies and programmes and reverse loss of environmental resources	Potentially	Weak but improving
10: Halve the proportion of people living without access to safe drinking water by 2015	Probably	Fair
Goal Eight: Global Partnerships for Development		
15: Deal comprehensibly with debt and make debt sustainable in the long term	Potentially	Fair
16: Develop and implement strategies for decent and productive work for youth	Lack of data *	Weak but improving *

Source: NDPC, 2004, cited in GoG/NDPC (2005: 152)
* indicates opinion of author as target 16 has not been assessed in the above sources.

1.4 Structure of Literature Review

This literature review contains the following sections:

- Rate of Return and other Quantitative Estimates;
- The Declining Returns to Schooling in the Early Years: Possible Causes and Policy Implications;
- Education and Labour Market Outcomes by Occupational Area: Wage-Employment, Self-Employment and Occupational Pluralism;
- The Returns to Cognitive Skills;
- Allocative Efficiency: Labour Allocation Between Income Generating Activities;
- The Underlying Assumption of the Ghanaian Skills Development Agenda;
- Possible Links between Training (in and for) the Informal Sector and Labour Market Outcomes;
- Some main pathways to employment through education and skills training in Ghana;
- Schooling, Skills Training and the Labour Market Environment in Ghana;
- Future Research Required.

This literature review is followed by an annotated bibliography of selected main papers and documents relevant to the review.

2. Rate of Return and other Quantitative Estimates

A first point of call in our review examines that rate of return to education estimates (RORE) which, since the 1970s, have had significant impact on policy decisions. Literature that examines the

private returns to schooling is far more widespread than evidence on the relationship between education and unemployment (O'Higgins, 2003).

Psacharopoulos' long, but contested (cf. Bennell, 1996a), history of analysis has shown the returns to education to be highest for primary education (cf. Psacharopoulos, 1973, 1980, 1985, 1988, 1994; Psacharopoulos & Patrinos, 2002). For Sub-Saharan Africa (SSA), the latest RORE estimates are shown in table 3. Here, primary education still is still seen to have both the highest social and private rate-of-returns.

Table 3: Returns to Education, by level (full method), Sub-Saharan Africa (latest year)

Social			Private		
Primary	Secondary	Higher	Primary	Secondary	Higher
25.4	18.4	11.3	37.6	24.6	27.8

Source: Psacharopoulos & Patrinos (2002, p. 13).

But these averages for SSA mask very different country data – which has been changing over time. For Ghana in 1967, the social returns to primary education were the highest (table 4), whereas the private returns were highest at higher levels of education. In 1967, the returns to secondary education were lower than those at the primary level.

Table 4: Returns to Education, by level (full method), Ghana (1967)

Social			Private		
Primary	Secondary	Higher	Primary	Secondary	Higher
18.0	13.0	16.5	24.5	17.0	37.0

Source: Psacharopoulos (1994, p. 18).

For Ghana in 1991 (table 5), it was at the Senior Secondary level (SSS) that the private and social rates of return were the highest. The private and social returns to SSS (vs. Junior Secondary School (JSS)) were higher than the returns to JSS (vs. primary). At the higher level of education, the private returns had dropped significantly since 1967, suggesting that the increase in numbers of youth graduating at this level had not been matched with an increase in the availability of waged jobs, and/or that the quality of education had declined.[10]

[10] The World Bank's participatory poverty assessments of the early 1990s attribute this mainly to a sharp decline in the quality of basic education (Korboe, 1995; Norton, Korboe, Dogbe & Aryeetey, 1996).

Table 5. Returns to Education, by level (full method), Ghana (1991)

Social				Private			
Primary (vs. no education)	JSS (vs. primary)	SSS (vs. JSS)	Higher (vs. SSS)	Primary (vs. no education)	JSS (vs. primary)	SSS (vs. JSS)	Higher (vs. SSS)
11.2	10.6	14.0	7.2	19.4	13.5	19.5	9.1

Source: Canagarajah & Thomas (1997, p. 46)

The Human Development Africa Region World Bank report comments on the figures in table 3, noting that:

> The relatively low rates of return to JSS (private at 13.5 per cent and social at 10.6 per cent) may reflect that JSS not only does not prepare the large number of students who finish JSS to qualify for SSS, but also inadequately prepares them for labor market participation as well. In contrast, the high rates of return to SSS (at 19.5 per cent and 14 per cent respectively) indicate that SSS seems to be functioning as terminal education for entry into the labor market. (World Bank, 1998, pp. 24-35, cited in Akyeampong, 2002, p. 19)

However, the RORE analysis has been strongly critiqued by Bennell (1996a) on numerous counts who concludes that "the conventional RORE patterns almost certainly do not prevail in SSA under current labour market conditions" (ibid., p. 195). This is largely because RORE analysis calculates the returns to education for wage earners. Hence, given that the majority of people in Ghana (and SSA more generally) are not wage earners, RORE estimates are very problematic and can be misleading. Bennell (1996a) further comments that, "the oft-repeated assertion that public investment in education is relatively attractive because actual social ROREs are relatively high vis-à-vis other types of investment can probably be no longer sustained in many SSA countries, in particular where wage employment opportunities remain minimal and traditional agricultural practices persist" (ibid). Others have noted that the standard Psacharopoulos-type RORE estimates are of limited use since they do not take the quality of schooling into account and hence can provide misleading (policy) information to decision makers (cf. Glewwe, 1996).[11] The value of Psacharopoulos-type RORE estimates for Ghana is therefore questionable given the country's huge informal economy.

Other quantitative estimates for returns to education, such as Mincerian returns and regression analysis, point to the importance of post-basic levels. Appleton, Hoddinott and Mackinnon (1996) note that the pattern of private returns to education being higher for higher levels of education is common across SSA.[12]

[11] See later discussion.

[12] Among other studies which find falling returns to lower levels of schooling (or, put another way, increasing returns to higher levels of education) are van der Gaag and Vijverberg (1989) for Côte d.Ivoire, Moll (1992) and Fallon and Lucas (1996) for South Africa, Zambia and Zimbabwe, Jensen & Westergaard-Nielsen (1996) for Zambia, and Söderbom, Teal, Wambugu & Kahyarara (2003) for Kenya and Tanzania (cited in Kingdon, Sandefur & Teal, 2005, p. 30).

Research evidence from Ghana confirms this position, showing that the returns to education are lowest at primary level and that it is at the post-basic level that returns are now highest. Canagarajah and Pörtner (2003) analyze the effects of education on household welfare in Ghana, using the data from the two most recent Ghana Living Standards Surveys (GLSS), GLSS 3 (1991/92) and GLSS 4 (1998/99) (see table 6 below). Their findings point to the importance of post-basic education[13] as a major determinant of welfare.[14] They show post-basic levels to have a strong and significant relationship to welfare outcomes in both rural and urban areas.[15] Moreover, their statistical analysis shows that "there appears to be low return to having a primary education" (ibid., p. 59), and that middle school education (or JSS) has only a marginal impact (cf. Teal, 2001).

For rural areas, their analysis shows that for both sexes primary education does not have an impact on welfare outcomes.[16] For men, a middle school education was shown to have a positive and significant effect on welfare in GLSS 4 (t = 0.0809, significant at the 5 per cent level), and for women in GLSS 3 (t = 0.0773, significant at the 5 per cent level). Post-basic (post-middle school) education is strongly significant for men in GLSS 4 (t = 0.1786, significant at the 1 per cent level), and for women in the same survey (t = 0.3152, significant at the 1 per cent level) (Canagarajah & Pörtner, 2003, p. 54-55). For rural areas, Canagarajah and Pörtner (2003) conclude that:

while increased education appears to have a positive effect on welfare, it thus seems that a primary education is not itself sufficient[17]… The benefit gained from having some middle school education also is not large, which may suggest that the quality of the schooling system is poor. The strong positive effect of post-middle school education, in contrast, suggests clearly that this is useful in the fight against poverty (p. 55).

For urban areas, Canagarajah and Pörtner show that the returns to education seem to be less for males when compared to rural areas. Moreover, when compared to those that have received no education at all, "there is no significant effect of primary or middle education" (2003, p. 58). A post-basic educational level still shows a statistically significant and positive relationship with welfare (ibid). However, for females there appears to be a positive return to education at primary and middle-school educational levels.[18] That there is little difference between the estimates leads Canagarajah and Pörtner to

[13] The education variable that Canagarajah and Pörtner used was based on the man or woman, 18 years or over, in the household with the highest level of education (2003, p. 55).

[14] Canagarajah & Pörtner (2003, p. 42) use 'welfare' to refer to the observed monetary value of consumption. Thus the welfare measure is largely pseudo-income measure of poverty.

[15] Canagarajah & Pörtner (cf. 2003, p. 48) use the standard definition of 'rural' and 'urban' areas adopted by the Ghana Statistical Service, namely that a rural locality is where the population is no more than 5000.

[16] However, in the GLSS 3 there appeared to be a 'slightly significant effect for females', where the t value was 0.0604 (Canagarajah & Pörtner, 2003, p. 54).

[17] However, Canagarajah and Pörtner (2003, p. 55) caution that "this result may be partly due to the way that education is measured. A person is considered to have some primary education if he or she has enrolled in school. There may, therefore, be relatively little difference in human capital between those with no educational background and those that report having primary education".

[18] However, only the GLSS 3 (1991/92) rural data for females shows a statistically significant relationship (at 10 per cent). In the latest GLSS (1998/99) for rural areas the relationship for females is negative.

comment that "most of the positive effect comes from finishing primary education" (ibid). Again post-basic[19] education is seen to have a "large and significant positive effect" (ibid).

Table 6: Education as a Determinant of Rural and Urban Consumption

	RURAL			URBAN		
	GLSS 3 1991/92	GLSS 4 1998/99	Combined	GLSS 3 1991/92	GLSS 4 1998/99	Combined
Primary (male)	-0.0074	0.0017	0.0165	-0.0301	0.0344	-0.0022
Primary (female)	0.0604*	-0.0090	0.0304	-0.0194	0.0860	0.0581
Middle (male)	0.0459	0.0809	0.0829	0.0737	0.0763	0.0747**
Middle (female)	0.0773**	0.0402	0.0529**	0.1754***	0.0657*	0.1216***
Post-middle (male)	0.1396***	0.1786***	0.1753***	0.1719***	0.1956***	0.1779**
Post-middle (female)	0.1311	0.3152***	0.2503***	0.3313***	0.3895***	0.3701***

Legend
* significant at 10%: ** significant at 5%: *** significant at 1%

Source: Canagarajah and Pörtner (2003, pp. 54-55; 57-58).

As noted by Canagarajah and Pörtner (ibid., p. 59), the low returns to primary education from their analysis should be read as low returns in *income*, as their welfare measure does not consider other possible benefits from having a primary education, such as the effects of primary education on health outcomes. It is only education at the higher levels, principally at the post-basic level, that returns "a significant difference from having no education at all" (ibid). Canagarajah and Pörtner suggest that "likely reasons for this include a low quality of primary education and the teaching of an irrelevant curriculum" (ibid). The authors conclude that:

> the cost to ordinary Ghanaians of getting to a level of education that has a significant effect on poverty is prohibitive, with the result that there is a very real danger of transferring poverty from one generation to the next. Poor households cannot afford middle or higher schooling for their children and therefore cannot afford to give them this opportunity to escape poverty. (ibid)[20]

Canagarajah and Pörtner (2003) conclude that it is post-basic education, not basic education that gives significant returns to individuals. The recent World Bank (World Bank, 2004b, Annex K) study on Ghana, *Books, Buildings, and Learning Outcomes*, assesses the impact of basic education on individual earnings and household expenditures. The findings are worth quoting at length since they are revealing and largely support Canagarajah and Pörtner's (2003) case.[21]

[19] 'Post-middle' in the table above: i.e. post middle-school / post-JSS.
[20] See Palmer (2005c, pp. 50-53) for a discussion of the poor's participation in education in Ghana.
[21] Interestingly, a recent DFID Ghana review of the education sector (DFID, 2005), that relied heavily on this World Bank study, does not mention that the findings point towards the higher returns of post-basic education.

Years of schooling has [sic] a positive impact on household expenditure. This result is found whether just the education of the household head is used or the average education level of all household members. The data suggest that an extra year of schooling increases per capita household expenditure by about 4 percent, so that completing basic education (nine years) increases it by 42 percent. (World Bank, 2004b, p. 196)[22]

[However] [s]uch regressions have to be interpreted with caution. Using them to estimate the growth effects of educational expansion can fall into a trap of the fallacy of composition.[23] Educating one person alters their life chances given the current state of affairs, so that they will likely enjoy a higher income. But educating many people changes the state of affairs. If the income gains of education come from accessing a limited number of employment opportunities, then the returns to education will fall as the number of educated people rises. On the other hand, if income gains are from genuine productivity increases — either for the self-employed or the employed if the wage reflects the marginal product — then educational expansion will indeed lead directly to growth. (World Bank, 2004b, p. 197)

Evidence of the former, less happy, picture is give[n] by looking at the Mincerian returns for the two periods… The 1988 data show the expected pattern of returns increasing for each category of education, though the return to primary education is not significant. But by 2003 not only have all the returns fallen - the expected effect from having more educated people available - *significant positive returns are only found for senior secondary and tertiary graduates*. (World Bank, 2004b, p. 197, emphasis added).

Disaggregation into rural and urban areas shows returns to have fallen in both. *There was a significant return to primary education in 1988, but this is no longer the case. In 2003, in rural areas the only significant return is from post-secondary education***.** Plausibly, secondary graduates find employment in urban rather than rural areas, but there are a few professional positions in rural areas (teachers, health workers) for which people have received post-secondary education. (World Bank, 2004b, p. 197, emphasis added)

This World Bank research on Ghana suggests that returns have been falling for the basic level due to what is happening outside the education and training system – in the labour market. It suggests that a decrease in employment opportunities - which were the result of the income gains of education - have led to a devaluation of the basic education currency in the labour market. This World Bank (2004b) data agrees well with the Canagarajah and Pörtner (2003) conclusion: that primary education no longer

[22] This assumption suggested in this paragraph is that there is a linear effect for the education function: that every additional year of schooling had the same effect on increasing household expenditure, year after year. This is clearly fallacious. The 'years of schooling' measure clearly does not tell us anything about the quality of schooling achieved, or indeed how often the person attended school. The following paragraph cautions against the 'fallacy of composition', but does not comment on the fact that even educating a few people is very unlikely to lead to a simple linear effect of the impact of education on household expenditure. Moreover, the following paragraph notes that 'if income gains are from… productivity increases… then educational expansion will lead directly to growth'. This again assumes there is a linear effect to the education function; that every additional year of schooling received will lead to the same increase in household income year on year.

[23] In other words, it is fallacious to say that just because educating one person increases household expenditure, if everyone receives an education all households will enjoy increased household expenditure.

shows the highest return and it is only at the post-basic level that there are significant returns to education. Indeed, there is further research evidence that reaches the same conclusion.

Van der Gaag and Vijverberg (1989) and Glewwe (1991) show the lowest rates of return to schooling in rural Cote d'Ivoire and Ghana to be at the primary-school level. In Ghana returns to primary schooling are almost nil; they are highest for post-primary schooling levels. Teal (2001) finds that there was a positive return to education at all levels, but that the returns were higher for higher levels of education.

The World Bank evaluation of basic education in Ghana (World Bank, 2004b, p. 42) notes that the positive returns to primary and JSS level are no longer evident, and in fact appear negative. As Canagarajah and Pörtner (2003, p. 55) noted, one reason why returns to primary schooling may be so low is because the quality of the schooling inhibits benefits to materialise.

The returns estimates noted above, such as Canagarajah and Pörtner (2003) and the World Bank (2004b), do not correspond with the general pattern for SSA noted by Psacharopoulos' estimates (see Table 3, above). One the one hand, Mincerian returns and regression analysis evidence show that it is post-basic education, not basic-education, that is showing the highest returns. On the other hand, (full-method) Psacharopoulos-type RORE for SSA show the opposite.

However, it is important to place a 'health warning' over the kind of pseudo-accuracy that quantitative estimates suggest. Bennell (1996a) has shown that these estimates have been a methodological minefield and, as we noted above, the value of Psacharopoulos-type RORE estimates for Ghana are questionable given the country's huge informal economy. What is also interesting about the quantitative literature, is that there has been very little attempt to calculate returns to TVET.[24] This is understandable because, unlike the relative similarity across nations of the length of primary, secondary and tertiary education, technical and vocational education can appear in so many different modalities, within and outside primary, secondary and post-secondary levels that it cannot possibly be treated as a regular sub-sector. TVET is a particular type of curriculum rather than a particular length of education or training (King & Palmer, 2006b).[25] One other thing should be noted about rate of return studies is that they normally do not look at the 'return' to specified groups such as rich and poor (cf. ibid).

3. The Declining Returns to Schooling in the Early Years: Possible Causes and Policy Implications[26]

Two inter-related propositions for the declining returns to schooling in the early years can be suggested:

- the education and training *delivery context* has declined, leading to a decline in quality teaching and learning;

[24] See however Bennell (1996b).
[25] For example, Ghana has the STEP programme, a very short, intensive 3-month skills programme, as well as 3-year institution-based skills programmes (e.g.ICCES/NVTI) and on-the-job traditional apprenticeship training.
[26] This section draws on Palmer (2006).

- the *transformative context* within which an education and training system should operate might not have been sufficiently supportive to catalyse expected outcomes;

We shall discuss each of these in turn.

3.1 Declining Quality

The first proposition is that the weakness of the education and training *delivery context* has led to declining quality at the basic education level which in turn has led to the decreased benefit to lower levels of education – and decreased returns to education.

The 'delivery context' refers to factors that will ensure or inhibit the sustainable provision of a quality education system itself, such as: the financing of education; availability of teachers and educational managers; the educational infrastructure; attitudes towards education; a supportive home and community environment; and the opportunities for progressing up the educational ladder.

Our discussion of the returns to education, above, has so far made no mention of the quality variable and assumes that each additional year of schooling provides some incremental value to the learner. But this assumption is clearly fallacious. A child that receives 6 years of primary schooling in Northern Ghana, where textbooks are absent or inadequate, teachers often do not turn up, there is no blackboard and the rain floods the classroom in the rainy season will obviously have very different returns to schooling than their contemporary in a well-resourced school in Cantonments in Accra. Issues of schooling quality are absolutely critical (cf. UNESCO, 2004; Weale, 1992, p. 1).[27] So what evidence exists for Ghana regarding the impact of school quality on the returns to schooling?

Glewwe (1996) estimated the returns to three types school quality improvements[28] and found that "the rates of return to those interventions were often higher than those from an additional year of schooling" (Glewwe, 2002, p. 469). Specifically, the social rates of return for these improvements were as follows: 7-25 per cent for providing textbooks, 15-25 per cent for providing blackboards and 13-24 per cent for repairing roofs (Glewwe, 1996, p. 285). These returns compared to the estimated rate of return per additional year of schooling "at the current level of [school] quality" (ibid, p. 286) of 4-6 per cent (ibid: p.281).[29]

However, what Glewwe does not point out is that it is not the provision of these items that makes any difference per se, rather it is how they are used by the teachers that is important for improving quality. As Korboe comments, 'it is also widely acknowledged that the presence of a teacher actually teaching is the single most important intervention' (personal communication to Palmer, by email 31.01.06).

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[27] The most recent Education For All Global Monitoring Report (UNESCO, 2004) examines the critical importance of the quality of education on outcomes.

[28] These included; providing two more textbooks per student, providing blackboards and repairing classrooms with leaky roofs.

[29] Glewwe (1996, p. 286, fn 23) notes that "[s]trictly speaking, these rates of return are not comparable because those given in Table 5 [the 4-6 per cent figure] are *priuate* rates of return. Yet since private rates of return to additional years of schooling are always higher than conventionally calculated social rates (i.e. ignoring positive externalities), the conclusion holds all the more".

There exist numerous other studies showing that school quality is an important determinant of the rate of return to education (for example, see Behrman & Birdsall, 1983; Glewwe, 1999; Hanushek, 1995).

One of the reasons for the decline in the quality of basic education, and hence the declining returns to lower levels, might be that the post-basic education and training environment has now become unsupportive to the basic education level, thereby disabling outcomes in the early years. Given the investment focus in Ghana has been on primary or basic education – to a greater extent than it has been at the post-basic level, it might be a lack of teachers and educational managers – who are products of post-basic education – has resulted in this declining quality at the lower levels (King and Palmer, 2006c, pp. 22-33; Palmer, 2005c).[30]

3.2 Unsupportive Transformative Context

The second proposition is that, given that there are no semi-automatic outcomes to education, the *transformative context* within which an education and training system should operate might not have been sufficiently supportive in Ghana to catalyse education development outcomes.

The 'transformative context' refers to the enabling environment, *outside* of the education system, that is required to transform education and skills training into developmental outcomes, including poverty reduction. This includes, for example, the growth in the economy and availability of employment opportunities; decent work deficits; facilitative 'infrastructure' for enterprise; meritocratic access to both the formal and informal labour markets; technological capabilities; social networks and institutions; cultural values and attitudes; infrastructure and many other factors.

For example, if education benefits accrue from obtaining employment and hence raising incomes, then it might be that the declining opportunity in the labour market has caused the decline in benefits of just having basic education. Indeed, Kingdon, Sandefur and Teal (2005, p. 31) note that "the market for human capital is central in explaining the wages of the highest income workers".

A further related reason for the unsupportive nature of the transformative context might relate to the primacy of basic education (compared to post-basic education) regarding investment and expansion. It has been argued elsewhere (King & Palmer, 2006c) that the post-basic system itself contributes to the development of the wider environment beyond education – which can help catalyse basic education outcomes. For example, Barro (1999) concluded that it was secondary and tertiary education, not primary, that has an impact on the economic environment. Furthermore, the World Bank's *Constructing Knowledge Societies: New Challenges for Tertiary Education* argues the crucial importance of tertiary education, not just for developing professionals in education and health, but for creating a high level

[30] See Palmer, 2005c: 90-95 for a discussion on educational quality in Ghana.

institutional capacity that is required for economic growth and poverty reduction (World Bank, 2002, p. xx).[31]

3.3 Policy Implications

What are the policy implications of this emerging consensus that the private returns to education in Africa are low in the early years of schooling and increasing with the level of education? (Kingdon et. al., p. 31)

In poor countries, the policy recommendation that primary education should have the funding priority is usually based on the idea that returns to primary education are the highest, relative to other levels. For example, Psacharopoulos (1985, p. 591) argues that "primary schooling remains the number-one priority for investment. This is evidenced by the fact that the social rate of return to primary education exceeds by several percentage points the returns to secondary and higher education" (see also Psacharopoulos, 1994). Indeed, the World Bank (1986, p. 9) officially advocated this position, reasoning that "[t]he social rates of return...suggest that in most developing countries primary education should receive the highest investment priority..."

However, the evidence for Ghana - presented above - paints a picture of low returns at the lower levels of schooling, and the basis of the standard policy recommendation regarding the primacy of primary education is seemingly undermined. And, following the same logic, the new policy recommendation might be that investment should be targeted at expanding post-basic education where the private returns are highest. Kingdon et al note that:

> Results such as these may have surprising implications for how best to allocate public investments in education between schooling levels. A common analysis in the education literature on Africa is that, given the pattern of convex returns documented here, efficiency dictates expanding enrolments at higher levels where returns are high, while primary expansion is exclusively an equity issue. (Kingdon et.al., 2005, p. 35)

However, as Glewwe (1996, p. 284) argues, when the quality dimension of schooling is taken into account this logic may be misleading:

> Low rates of return to certain types of education do not necessarily imply that future investments should be directed toward other types; in fact, they may indicate that investments are most desperately needed there. Taking Ghana as an example, the apparent low rates of return to primary and middle school (Grades 7-10) education do *not* mean that investments in these schools should be redirected toward other forms of education. They may mean the *opposite, more* investments are needed to raise the rate of return to primary and middle school education (Glewwe, 1996, p. 284, italics in original).

Hence, "the implication is *not* that poor countries should invest less in primary education" (Kingdon et.a l., 2005, p. 31, emphasis added). Indeed, as Kingdon et al point out, there is a large body of evidence that shows the non-income benefits of primary education. Furthermore, primary education

[31] There is also the argument that parents and students need to see adequate, accessible and meritocratic post-basic education and training opportunities otherwise they will be less motivated to perform well at the basic level. For a general discussion on this, see King and Palmer, 2006c. For evidence from Ghana, see Lavy, 1996.

forms the basis of further learning, and since basic education feeds higher levels of schooling, a good quality basic education is essential to maintain quality outcomes at higher levels (Palmer, 2005c). However, this implication should certainly not be a signal to keep the focus on basic education alone, since improving the quality of basic education is also dependent on having a stronger and more equitable post-basic education and training system (ibid.).

Moreover, the evidence from Ghana, that returns to education are higher at higher levels of schooling leads to another policy implication; who reaches these higher levels and on whose incomes is there impact? Indeed, this is a question almost never asked by economists. The present status quo is for formal post-basic education in Ghana to largely exclude the poor, and for too much public money to be spent on secondary and tertiary levels. Despite only 10 per cent of the population achieving an education level of SSS of higher (GSS, 2000, p. 8, table 2.1), of the total resource envelope[32] for education in 2005, an estimated 47 per cent was allocated to SSS, teacher and tertiary education (GoG, 2005b, p. 97). Moreover, a recent study by GSS reveals that the poorest 10 per cent of the population are unlikely to benefit from public expenditure on either secondary or tertiary levels (Danso-Manu, 2004). But, it is at the tertiary level that the poor really are excluded. The GSS study shows that the poorest 45 per cent of Ghana's population have no access to tertiary education (and hence do not benefit from public expenditure at this level) and derive no direct personal benefit from it. At the other end of the spectrum, the Ghanaian elite, the richest 1.5 per cent of the population, command 55 per cent of public spending on tertiary education (ibid.). While acknowledging the essential role that formal post-basic education plays in poverty reduction and growth (King & Palmer, 2006c), it is important that those receiving secondary or tertiary pay more for the privilege. The cost-sharing mechanisms at secondary and tertiary levels need serious consideration. However, what is also essential, particularly if fees are increased at formal post-basic level, is that the poor are not further marginalised. This would mean much more financial support to needy, but talented, basic education graduates so that they might participate in secondary and other post-basic levels of education. The government an donors, for example, might explore mechanisms by which they can provide funds to support the poor through post-basic education.

With respect to the second proposition, above, that the decline in returns to lower levels of schooling is due to the development of an unsupportive transformative context, there are a couple of policy implications. A key element of the transformative context is clearly the labour market environment (King & Palmer, 2006b). Formal sector job creation in Ghana remains largely stagnant, with most new employment opportunities being created in the informal economy. And, in the absence of new opportunities in the formal sector – particularly for primary or basic education graduates - combined with an absence of any clear informal economy strategy in Ghana (Palmer, 2005a) the labour market environment in Ghana is clearly disabling for the majority of school graduates. Hence returns to schooling will remain low at the lower levels unless action is taken to improve the labour market

[32] The total resource envelope includes GoG resources, Donor funding, Internally Generated Funds and Other sources (eg. GETfund, HIPC, DACF and EFA Catalytic).

environment and the creation of more supportive policies are put in place, particularly for those with basic education or less. Therefore, the government needs to place a much greater emphasis on what happens when children leave school, early or not as the case may be, by creating a supportive labour market environment – particularly for the informal economy which deals with the numerous decent work[33] deficits that inhibit education and skills training from translating into poverty-reducing employment (Palmer, 2005a; 2005b; 2005c).

With respect to the third proposition, above, that the decline in returns to lower levels of schooling is due to the development of an unsupportive post-basic education and training environment, we might note two issues. It is important to see the education and training system in Ghana in a holistic manner (Afenyadu et. al., 1999; Palmer, 2005c) and to recognise the inter-dependence of the whole system (King & Palmer, 2006a, 2006c). Policy prescription regarding financing, therefore, would be more effectively approached from a holistic perspective and not from a perspective of 'trade-offs' between one sub-sector of education and training with another.

4. Education and Labour Market Outcomes by Occupational Area: Wage-Employment, Self-Employment and Occupational Pluralism

We now turn to what the literature has to say with regards to education and labour market outcomes according to occupational area. Teal (2001) provides comprehensive coverage of economic returns to education in Ghana using data from the four rounds of the Ghana Living Standards Surveys in 1987/88, 1988/89, 1991/92 and 1998/99. Teal (2001, p. 6) showed that there was a positive return to education at all levels, but that the returns were higher for higher levels of education. Moreover, unlike the studies mentioned above such as Canagarajah and Pörtner (2003) and the World Bank (2004b), Teal makes the distinction between the non-farm self-employed, those in agriculture and those in waged employment. This crucial distinction is usually omitted from returns to education estimates and was one of Bennell's (1996a) main criticisms of using these estimates for SSA, since they are usually based on formal sector waged employment, while the majority of the labour force in SSA is self-employed in the informal economy (including both agricultural and non-farm work).

Table 7 shows that between 1987 and 1999 the average years of education of the population rose by 27 per cent from 4.5 to 5.7 years (Teal, 2001, p. 6). It also shows that level of education seems related to the type of occupation in the economy. Teal notes that the public sector has the most educated employees, with an average of 12.4 years of schooling. Those in private wage employment have on average 9.3 years of schooling, those in non-farm self-employment have 6 years, while those in agriculture had 3.6 years. Teal suggests that this shows there to be "a clear hierarchy of use for education" (ibid.). The bottom of table 16 shows how the percentage of those in post-basic education increased from 5.4 per cent in 1987/88 to 10.5 per cent by 1998/99.

[33] Decent work, in ILO discourse, encompasses improvements in working conditions, reducing vulnerability and achieving improvements in productivity and quality. The ILO strategic areas regarding decent work include: Employment and labour issues; Standards (at the macro-level); Social Protection; and Social Dialogue (ILO, 1999).

Regression analysis by Teal (2001) shows that the increase in the average education level of 27 per cent between 1987/88-1998/99 caused an increase in consumption of about 3 per cent (pp. 11-12). He showed that the decadal consumption average was 11 per cent, meaning that about one third of the rise in consumption can be attributed to the rise in education (ibid). Teal (2001) notes that the returns to education in Ghana are much higher for wage earners (public and private) than they are for the non-agricultural self-employed. Teal calculates rate of return estimates not only for the waged employed (both public and private), but also for the non-farm self-employed and the farmer (table 8).[34] He concludes that this difference in the rate of return is due to the difference in the average levels of education of wage earners compared to the non-agricultural self-employed (and not to do with any difference in the rate of returns between the two types of occupation). Hence, Teal shows that farmers, on average, have the lowest levels of education and correspondingly the lowest returns to education. The rate of return is approximately the same for both private and public wage employment, even though, on average, the former has about three years less education that the latter (Table 8).

Table 7. Education by Type of Worker

		Ghana Living Standards Survey Rounds			
		1987/88	1988/89	1991/92	1998/99
Public Wage Job	N	490	537	560	474
Education		9.4	10.0	10.2	12.4
		[5.3]	[5.3]	[5.5]	[4.4]
Private Wage job	N	353	401	336	404
Education		7.0	7.5	8.4	9.3
		[5.1]	[4.9]	[4.8]	[5.0]
Non-Agricultural Self-Employment	N	1,004	1,309	1,350	1,664
Education		4.4	4.8	5.0	6.0
		[4.8]	[4.8]	[4.8]	[5.0]
Farmer	N	1,804	2,066	2,353	2,855
Education		2.8	3.1	3.3	3.6
		[4.3]	[4.3]	[4.3]	[4.5]
All workers	N	3,651	4,313	4,599	5,397
Education		4.5	4.9	5.0	5.7
		[5.2]	[5.2]	[5.2]	[5.4]
Highest Educational Levels Reached (%)					
No Education		50.8	45.5	45.6	44.5
Primary or less		16.8	20.2	17.9	12.0
Middle School Completed		27.0	28.4	29.8	33.0
Secondary School Completed		2.5	2.9	3.8	5.2
Some Post secondary		2.9	3.0	2.8	5.3

Legend: The figures in [ ] parentheses are standard deviations. N is the number of observations.
Source: Teal (2001, p. 20).

[34] Though the huge methodological problems associated with estimating returns to self-employment (farm or non-farm) mean that results should be treated with caution.

Table 8: The Mincerian Rate of Return to Education and the Average Years of Education by Occupation Type in Ghana

	Farmer	Non-Farm Self-Employment	Private Wage Employee	Public Wage Employee
Average years of Education in 1998/99	3.6	6.0	9.3	12.4
Rate of return (Mincerian)	1.0	2.5	6.2	6.1

Source: Teal (2001, p. 21).

With an increase in individual and household income comes a host of associated derived benefits to post-basic education. More income usually means more security, better nutrition for the household, better healthcare and better overall livelihood. Hence, it is largely assumed that if there is an effect on income levels as a result of education, then poverty will be reduced in multiple ways: health improvements, social capital improvements, better standard of living and so on.

Glewwe (1996) also distinguishes between returns to education for public (government) and private sector workers, since the "assumption that wage determinants are identical in public and private wage employment in Ghana is doubtful" (ibid., p. 273).[35]

Glewwe (1996) uses data from the 1988/89 GLSS II survey to calculate the returns to education using three alternative models of estimation. The standard OLS[36] estimates yielded returns to education of about 7 per cent in both sectors.[37] "But when selectivity of workers entering the two sectors were allowed for through two selection equations determining the choice between wage work and other work, and also between government wage and private wage employment, there were dramatic changes in the return to education" (Canagarajah & Mazumdar, 1997, p. 31). Glewwe (1996) presents two alternative methods of estimation, with both yielding identical results - that "in the government sector the returns to education drop to about 4-6 per cent, and in the private sector they appear to be *zero*" (ibid, p. 274, italics in original).

Glewwe wrote that "it is difficult to believe that there is no return to human capital in the private sector" (ibid., p. 276) and questioned whether one must "conclude that there is no return to education in Ghana, unless one obtains a government job" (ibid., p. 275). Glewwe suggest that one interpretation is

[35] "Further, estimates of returns to education are most reliable for the private sector alone, since governments are not fully subject to market forces which compel private employers to pay workers according to their productivity; in particular, market forces do not prevent the public sector from paying wages higher than the marginal product of labor, and it is tempting for government officials to do so since their own salaries would increase" (Glewwe, 1996, p. 273).

[36] Ordinary Least Squares parameter estimates (cf. Glewwe, 1996).

[37] 0.0751 for the public employees and 0.0728 for private wage earners (Glewwe, 1996, p. 275).

that "Ghana's education system has such low and uneven quality" (ibid., p.276) that 'years of schooling' alone do not lead to positive income returns.[38]

What the above data (e.g. table 8, above) does not show is the impact of education on multiple occupations[39] (many, particularly the poor, engage in occupational pluralism in Ghana[40]), nor does the standard 'years of education' measure say anything of the quality[41] of the schooling received or what was taught in the school – two key variables.

5. The Returns to Cognitive Skills

A number of researchers also examine the returns to cognitive skills. For example, Glewwe (1996) calculates the private rate of return for additional years of schooling using cognitive skills data available for Ghana. He finds that it is cognitive skills, not years of schooling per se or innate ability, which determine wages in the private sector of Ghana.

Jolliffe (1998), using data from the 1988/89 GLSS, provides a more interesting review, examining how the income of 1388 households in Ghana is affected by cognitive skills (measured by scores in maths and English tests). He estimates the returns to these cognitive skills on farm profit, off-farm income and total income and concludes that cognitive skills have a positive effect on total and off-farm income, but have no statistically significant effect on farm income (Jolliffe, 1998, p. 81). This suggests that literacy and numeracy have low returns in farm activities in Ghana, and hence might induce individuals with higher skill levels to engage in nonfarm activities (cf. Glewwe, 2002). He goes as far as to say that:

> The estimates of farm and off-farm income suggest that none of the returns to skills is found in farm income and that only the off-farm income estimates provide evidence of positive (and statistically significant) returns to skills. (Jolliffe, 1998, p. 101)

However, he cautions that:

> As a final comment, although the benefits of cognitive skills to Ghanaian households are not found in their effects on farm income, this does not mean that households engaged in farming do not benefit from improved cognitive skills. The GLSS data make clear that the typical household is engaged in numerous income-generating activities. Although a household's farm profitability might not improve, its total income will increase from the improved skills of household members." (ibid.)

Instead of using 'years of schooling' as the education variable, Jolliffe (1998) uses the test scores to measure human capital. He argues that "it is not school attendance that intrinsically increases a worker's productivity, but instead the skills obtained while in school… [hence] test scores serve to proxy

[38] See section 3.1.
[39] We shall examine the effect of education on labour allocation between occupations in section 6.
[40] Occupational pluralism refers to households and individuals engaging in multiple occupations, by straddling different types of work in both the formal and informal (or multiple informal) areas of the economy. See Palmer (2004b: section 8) on occupational pluralism and Reardon (1997) on household income diversification.
[41] We examined the quality issue in section 3.1.

for human capital better than years in school" (ibid., p. 81). Further, Jolliffe (1998) argues that test scores are a better proxy for school quality.

6. Allocative Efficiency: Labour Allocation Between Income Generating Activities

One area in which there has been little research in Ghana is in the examination of the impact of schooling on labour allocation between activities. This is important given the occupational pluralism of individuals and households, particularly in rural areas.

Jolliffe (2004), using data from the 1988/89 Ghana Living Standards Survey, estimates the returns to education in both farm and off-farm work in Ghana, and the role of education in labour allocation between activities.[42] He notes that many households in developing countries are engaged in several income-generating activities and, because previous studies have focussed on the returns to *either* farm *or* wage/off farm work, there was a need to explore how education affects labour allocation between activities.[43] Indeed, he notes that:

> Measures of the farmers' returns to education that only incorporate changes in farm profitability are likely to miscalculate the value of education to farmers who also engage in off-farm work. Estimating a farm household's returns to education on and off the farm will provide a more complete description of the value of education (Jolliffe, 2004, pp.287-288).

Jolliffe (2004) finds that the returns to education are much higher for off-farm work than they are for farm work and, consequently, "better-educated farmers allocate more labor to off-farm work" (p.290). Jolliffe (ibid., 291) presents data from the 1988/89 GLSS (Table 9) which shows that the education levels of farmers who only work on their own farm are lower than those who find some employment in non-farm activities.

Jolliffe's analysis of the 1988/89 GLSS data suggests that "those individuals who have more schooling than the other members of their household… are less likely to work on the farm" (2004, p. 305). Unfortunately, Jolliffe does not make a distinction between the *type* of off-farm work. Since there is a whole spectrum of off-farm work, much of which is very subsistence orientated, it would have been useful to know what kind of off-farm work more education people are doing. It would seem that the more educated individuals opt for the more dynamic off-farm activities since Jolliffe's finding is that off-farm activities have a higher return than farm activities.

While Jolliffe's findings are very interesting, they are only suggestive that post-basic education will cause individuals to allocate more labour to off-farm work. This is because, as can be seen in table 9, even the highest number of years completed is eight – making 6 years of primary and two and lower

[42] Jolliffe built on the ideas of the economist Finis Welch who looked at the effects of education on resource allocation. He noted for example, that in dynamic, changing environments, better educated farmers were more able to choose between farm inputs to increase productivity, when compared to less educated farmers (see Welch, 1970; 1978). See also Jolliffe, 1996.

[43] Occupational pluralism – households engaging in multiple occupations – is the norm in rural Ghana and much of SSA (see Palmer, 2004b, section 8). See also Reardon (1997) on household income diversification.

secondary (JSS). Hence, there is only the suggestion that those with more education than eight years would, on average, allocate more labour time to off-farm activities.

Table 9: Years of Completed Schooling by Sex, Age, and Off-farm Participation

Age	Full sample	Farm work only		Off-farm work	
		Male	Female	Male	Female
All adults (20+)	4.23	4.0	1.5	6.3	3.3
20–24	6.13	6.3	3.1	7.9	5.2
25–29	5.89	5.8	3.0	8.0	4.7
30–34	5.93	6.6	3.1	7.9	5.0
35–39	5.16	4.6	2.3	7.5	3.9
40–44	4.48	4.1	1.0	7.3	2.9
45–49	3.24	3.9	0.6	5.5	1.8
50 and older	1.19	1.5	0.2	2.5	0.5

Source: Jolliffe, 2003: 291

NB: The sample consists of the members of the 2393 farming households who are 20 years of age and older. 'Off-farm Work' includes all individuals who work off of the farm, regardless of whether they also work on the farm.
Source: Jolliffe (2004, p. 291).

7. The Underlying Assumption of the Ghanaian Skills Development Agenda

The Ghanaian government, and the Gold Coast administration before that, have made repeated attempts to make education more relevant to the 'world of work' to solve unemployment issues, as can be seen by examining reform efforts over the last one hundred and fifty years (Palmer, 2005c).[44] It is therefore surprising that support for skills development in Ghana remains weak.[45]

The most recent education reform in Ghana, as outlined in the *White Paper on The Report of The Education Reform Review Committee* (GoG, 2004a), outlines a number of changes to the education system and carries the implicit assumption that something must have gone wrong with Ghana's education and training system and that is why there are so many unemployed school graduates. The government, in the planned diversification of SSS level[46], and the attempts at providing skills for the poor (eg. in Integrated Community Centres for Employable Skills (ICCES) and Skills Training and Entrepreneurship

[44] Philip Foster's classic *Education and Social Change in Ghana* (Foster, 1965a) examines over one hundred years of educational reforms and showed that since the 1847 Education Committee of the Privy Council (cf. ibid., pp. 54-56), there have been repeated attempts in all the educational reforms to make the school curriculum less 'bookish' and more relevant to the world of work. In fact, since the publication of Foster's monograph in 1965, there have been three further attempts to reorientate the educational system better towards employment. The 1966 Kwapong Educational Review Committee, the 1972 Dzobo Educational Reform Committee and the 1986 Evans Anfom Committee all pushed for making the school curriculum more relevant to work (Palmer, 2005c).

[45] Foster argues that, in fact, it is not that the government that has placed a low priority on skills training, but the parents and students themselves. As we noted, since 1847, there have been numerous white papers and proposed reforms that were trying to push skills training. Rather, the pressure from parents and students has been, and still is, for general academic schooling (cf. Foster, 1965a).

[46] The White Paper proposes to extend SSS to four years (from three) and diversify it into four streams: vocational, technical, agricultural and general education. For a detailed discussion on the White Paper Reforms, see Palmer, 2005c.

Promotion (STEP)) is following the same logic as it has in the past: that providing skills to the youth will lessen problems of under- / unemployment. [47]

This assumption is implicit in the World Bank's Vocational Skills and Informal Sector Support Project (VSP)[48] and the ICCES and STEP programmes. Korboe notes that "the design [of the VSP] assumed that a combination of training and [providing tools to] graduates would be sufficient to generate self-employment" (Korboe, 2001a, p. 3). Indeed, for political reasons, the Government of Ghana would like to believe that the objectives of these skills programmes (especially the STEP) are largely met: that the youth have successfully acquired marketable skills and become gainfully employed.

This assumption - that if you orientate the curriculum more towards vocational subjects, graduates will be more 'employable' and be able to access work opportunities more easily – is also the reason for the vocationalisation of the JSS in the 1986/87 reforms. In a discussion of the vocationalisation of the JSS, Akyeampong (2005) comments that he:

> did not find empirical studies conducted in Ghana that support the economic benefit argument of vocationalization of the secondary school curriculum – for preparing students for paid and self-employment. Many simply assume this to be the case – an assumption which is firmly imbedded in the discourse of TVE in Ghana at both school and policy level (p. 9).

Indeed it was in Ghana that Foster put forward his classic 'vocational school fallacy' argument (Foster, 1965b). Foster argues that it is not possible to change the aspirations of youth by providing them with vocational education since there aspirations are determined largely by what happens outside the education and training system – in the labour market. Foster argued that in general, pupils and parents value academic education much more than vocational education and training, because it promises to offer better employment opportunities in the future. Foster argued therefore that, in many respects, academic education is more vocational than vocational education proper.[49]

This assumption, while popular in Ghana, and other developing country governments, is actually backed up with very little research or evidence. It is simply taken as axiomatic that skills training gives people skills which they can use to get or make work and get income, hence reducing their poverty and stimulating economic growth.

The research, monitoring and evaluation evidence from Ghana for the impact of skills development on the informal sector is very weak. Those programmes that have been evaluated were externally funded, like the World Bank's VSP (cf. Korboe, 2001a, b), or IFAD's Rural Enterprise Project (cf. GoG/IFAD, 2000). Government programmes that target the informal sector, such as ICCES and

[47] Interestingly, the STEP acronym initially stood for the Skills Training and *Employment* Placement programme. However, the government recognized that there was a significant risk that this programme title implies that STEP has a large capacity to place unemployed persons in jobs. But STEP is not a job-creation programme: rather it empowers unskilled or low-skilled unemployed persons to find jobs. Hence the title was changed to Skills Training and Entrepreneurship Programme in the GPRS II document (GoG, 2005a).

[48] The World Bank VSP ran from 1995-2000. See Korboe (2001a; 2001b), King and Palmer (2006b, pp. 49-50), World Bank (1995; 2001) for more on the VSP.

[49] While Foster (1965b) argued that the curriculum made no difference to the aspirations of students with regards to occupation, King and Martin (2002) show that curriculum can impact on occupational aspirations to an extent (see also Foster's reply to this, Foster, 2002).

STEP, have never been evaluated in depth. It is simply assumed that objectives are reached and that these programmes have a positive impact on their target clients: the unemployed poor or the rural youth. Similarly, for skills training in the informal economy, in traditional apprenticeships for example, empirical research findings or evaluation studies on the impact of informal sector training on poverty reduction, growth or labour market outcomes are not common. It is therefore clear that more research-based evidence is required that examines the relationships between skills development for poverty reduction and growth, particularly with respect to the informal economy.

8. Possible Links between Training (in and for) the Informal Sector and Labour Market Outcomes[50]

In a general analysis, the ILO (1998) saw training as being important for workers in the informal economy and discussions during a workshop of donors and researchers on a draft of *Skills Development in Sub-Saharan Africa* (cf. World Bank, 2004a) noted a definite link between skills training and poverty reduction, and argued that skills training is good for growth, productivity and innovation (Fluitman, 2002). Skills development is often said to be beneficial to informal sector operatives in a number a ways.[51]

Firstly, it is widely assumed that skills training in the informal economy increases productivity, quality, diversity and occupational safety and improves health, thereby increasing incomes and hence leading to reductions in poverty levels for these workers and their families (cf. Fluitman, 2002; World Bank, 2004a). Secondly, skills training in non-farm activities that results in increased productivity might lead to positive knock-on effects to agricultural enterprises, principally through cross-financing (Palmer, 2004b).[52] Farm-Nonfarm linkages are well acknowledged (eg. Haggblade et. al., 1989; Reardon et. al., 2001). For skills training that occurs on-the-job in the informal economy it has been argued that it helps to develop social capital. Training allows for a gradual building up of informal business and social networks (with suppliers, customers, other apprentices, masters and trade associations) (Assad, 1993; Hart, 1973) and can help develop business skills and experience (Fluitman, 1994).

While it is not the intention to dispute these claims per se, it is essential to question the capacity of the economy, especially the informal economy, to realise these outcomes.[53] These beneficial results of

[50] Skills development **in** the informal economy largely refers to 'on-the-job' traditional apprenticeship training, which typically occurs in informal manufacturing enterprises. Skills development **for** the informal economy refers to skills programmes that are specifically targeted at: i) upgrading the skills of those already in the informal economy by those outside the informal economy (for example the World Bank's Vocational Skills and Informal Sector Support Project); ii) pre-employment training for those not yet in the informal economy in skills that are deemed relevant for informal economy employment – where the programmes objectives specifically intend the graduates to become self-employed entrepreneurs in the informal economy (for example the government of Ghana's Integrated Community Centres for Employable Skills and Skills Training and Entrepreneurchip programmes). See Palmer (2005c: section 3.10.3) for fuller discussion.

[51] These are more fully discussed in Palmer (2005c: section 5.6).

[52] Cross-financing involves the use of profits from one (farm or nonfarm) enterprise as an input for another (farm or nonfarm) enterprise. The relationship is two-way, with farm activities cross-financing non-farm activities and vice-versa.

[53] We come back to this point in section 10.

skills development perpetuate the assumption that skills training leads to economic growth and poverty reduction (cf. Working Group for International Cooperation in Skills Development, 2002, p. 16).[54]

Two current government-funded skills programmes in Ghana, that are largely aimed at creating self-employed graduates in the informal economy, are the ICCES and the STEP schemes.[55] The outcomes of both these programmes have never been evaluated. While there has been evaluation of the process of the training, the government has never conducted any sort of tracer survey on ICCES or STEP graduates to determine the outcomes.[56] The Ministry of Manpower, Youth and Employment (MMYE)[57] does not know what happens to ICCES or STEP graduates; they can only guess. For their part the government tends to assume that the ICCES and STEP objectives are met: that the youth have successfully acquired marketable skills and are now gainfully employed.[58]

With regard to the STEP programme, the government is keen to portray the major outcome as being job-creation. However, the assumed link between skills training and self-employment creation has yet to materialise in reality. It is true that the *skills training* component of Skills Training and Employment Promotion has taken place, albeit with many delivery challenges,[59] but as yet the *employment promotion* has not occurred. The 2003 Ghana Poverty Reduction Strategy Annual Progress Report mentions the STEP programme, but notes that "information on job placements is not currently available" (GoG, 2004b, p. 83).[60]

The STEP programme will not lead automatically into employment creation, without a supportive transformative context in the informal economy.[61] The government has announced plans to release loans to STEP graduates and wants them to form into cooperatives of four or five and to seek loans from the rural banks (who would have been extended a loan from the government to on-lend to STEP clients). Loans are not automatically given, and it will be interesting to see how many STEP graduates actually apply for, and are able to access these loans when they become available.[62]

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[54] In a similar vein, the higher returns to primary level (e.g. Psacharopoulos & Patrinos, 2002; see also table 3) have led economists to argue, simplistically, that investment priorities should be at the basic education level.

[55] See Palmer (2005c), section 3.10.3.

[56] There has been ample time for this to take place for ICCES, which started in 1986. The STEP programme, however, only started in 2003, but the key role that STEP is playing in the government's fight against unemployment should have meant that more attention was paid to what actually happens to STEP graduates. See Palmer, 2005a: Appendix, or King and Palmer (2006b) for some information on employment outcomes of STEP and ICCES graduates.

[57] Previously the Ministry of Manpower, Development and Employment.

[58] See Palmer (2005c), section 3.10.3.

[59] See Palmer (2005c), section 5.7.

[60] Nor is it likely to be available since the government has no current plans of collecting this information (Dr. Angela Ofori-Atta, then Deputy Minister for Manpower, Youth and Employment personal communication, 12.11.04). Interestingly, in March 2005 the ILO funded two foreign consultants to conduct a review of the STEP programme. No tracer study, however, was conducted (see Palmer, 2005a, Appendix; Palmer, 2006).

[61] See Palmer (2005c), section 6.

[62] The government has in fact set aside a considerable sum for STEP graduate loans from the HIPC fund – some 6 billion cedis (GoG/NDPC, 2005: 95). It will be interesting to assess the credit disbursal and repayment rates. Korboe notes that 'recently newspapers have reported that some money has actually been released' (personal communication to Palmer, by email 31.01.06). Apart from credit, there seems to be very little in the 'pipeline' with regards to other business development services for the graduates. Indeed, the institutional framework for MSE

Traditional apprenticeship training is especially well developed in West Africa (World Bank, 2004a: 131). In Ghana, it is responsible for some 80-90 per cent of all basic skills training in the country, compared to 5-10 per cent from public training institutions and 10-15 per cent from NGO for-profit and non-profit providers (Atchoarena & Delluc, 2001, p. 225; Haan & Serrière, 2002, p. 34; World Bank, 2004a, p. 129). [63] Factors that impact on labour market outcomes of apprentice graduates, the advantages and disadvantages of this type of training, are well documented (cf. World Bank, 2004a, pp. 133-134). Frazer reviewed the Ghanaian Manufacturing Enterprise Survey (GMES)[64] that provided data on the overall percentages of apprentices engaged in different activities, according to their former masters (table 10). About 38 per cent of the sample continued working for the firm in which they did their apprenticeship, while 29 per cent went into self-employment. 15 per cent were working for a different firm, but in the same industry.

Table 10: Activities of Apprentices After Apprenticeship

Fraction of Former Apprentices in Different Activities	
Continued working for the firm	0.375
Worked for another firm in the industry	0.152
Worked for a firm in another industry	0.032
Started their own business	0.285
School	0.011
Unemployed	0.010
Don't know	0.178

Source: Frazer (2006), Appendix Table 3.

9. Some main pathways to employment through education and skills training in Ghana

As can be seen from fig 1, the pathways from education and training into the labour market can be very complex. The route for the majority of the youth is as follows: they would complete JSS, and then 35 per cent of this cohort would continue to SSS. 47 per cent of the JSS cohort enter the informal economy (GoG/Ministry of Education, 1999, cited in Akyeampong, 2005, p. 8), which would include those that went into apprenticeship, while the remainder enter technical, vocational or agricultural institutes. These pathways are more fully discussed in Palmer (2006).

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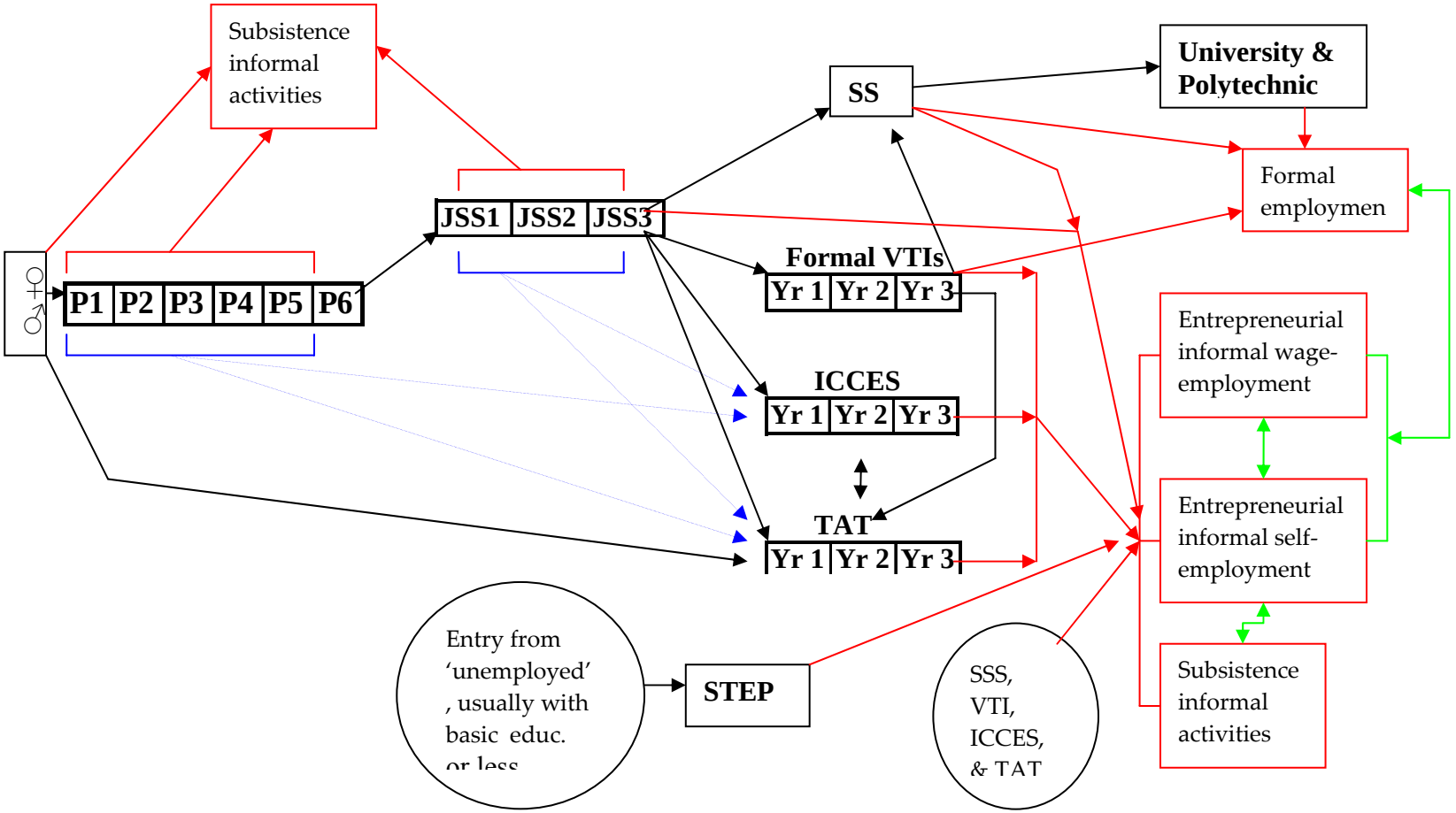
support in Ghana, and particularly rural Ghana where most STEP programme are, is known to be very poor (see for example, Palmer, 2005a; 2004a).

[63] See Ahadzie (2003), King and Palmer (2006b, pp. 49-50), Palmer (2006) and Valenchik (1995) for further discussion on traditional apprentice training in Ghana.

[64] The GMES was one of nine surveys conducted in African countries in the 1990s as part of the World Bank's Regional Program on Enterprise Development (RPED) surveys.

Fig 1. Some Main Pathways to Employment through Education and Skills Training in Ghana



Source: Palmer (2006). Notes to figure 1: Black arrows denote a move to further education/training; Blue arrows denote primary/JSS drop-outs moving to further training; Red arrows show a move to the labour market; Green arrows denote a move between types of work in the labour market.

10. Schooling, Skills Training and the Labour Market Environment in Ghana

The evidence presented above, taken alone, might suggest that there is some sort of semi-automatic effect of education and training on developmental outcomes. We have noted that issues of schooling/training quality are absolutely critical and indeed the whole internal delivery context of the education and training system is crucial to labour market outcomes. But a further key determinant to labour market outcomes, as we have alluded to above, is the degree to which a supportive transformative context, external to the education and training system, is in place (cf. King & Palmer, 2006c; King et. al., 2005). And, perhaps, the most important element of this external environment is the labour market environment itself.

Indeed, it is widely acknowledged that skills training alone is not sufficient for developmental outcomes to materialise. As the World Bank's *Skills Development in Sub-Saharan Africa* notes, "training requires an enabling environment… training alone is not an effective means to combat unemployment" (World Bank, 2004a, p. 27). Training forms part of a package to support the informal economy (ibid.).

Working might be the clearest pathway out of poverty for the poor, but the type of work that people have is critical (cf. Fluitman, 2005). As we noted earlier, informal economy work in Ghana represents by far the largest 'segment' of the total workforce, at some 86 per cent. Most of those working in Ghana's informal economy do not work under 'decent' conditions and many are struggling to move from subsistence to growth. It is crucial, therefore, to examine the type of labour market environment, particularly with respect to the informal economy, into which education and skills training programmes are graduating their students/trainees.[65]

11. Future Research Required

Since the new millennium, skills training has been stepped up, especially under the current government. However, with the exception of a few externally-required evaluations of the donor-funded projects, there has been virtually no research investigating how effectively the skills acquired are being translated into the labour market. Predictably, therefore, policymaking is not rooted in evidence-based arguments. The government can only speculate on what it is that graduates of these programmes do, but there is a strong presumption that the objectives of their training schemes are being met. This is the underlying assumption of the Ghanaian skills development agenda: that provision of vocational skills will have beneficial impacts on the poor – making them employable, equipping them with the skill and know-how to enter and/or progress in self-employment and, ultimately, reducing poverty through raised incomes. But there is really very little research evidence to back up this optimism. ***Research is needed to generate evidence of the labour market outcomes of skills training in Ghana.***

The Government's skills agenda is wide and includes increasing the global competitiveness of Ghana's human resources, but it is also concerned with the relationship between skill and poverty. Hence a related, rather fundamental, question that has also been widely neglected is whether the children of the

[65] For a discussion of the type of informal economy labour market environment in Ghana, see Palmer (2005a).

poor are even to be found in the various types of training provision, whether school-based, institution-based, or enterprise-based. There is, therefore, very little good data on what we may term **the social composition of skills provision,** but the substantial cost of much skills training, even including fees for training in the informal sector, would suggest that the children of the poorer families are unlikely to be significantly represented. This perspective emphasises that a precondition to discussing whether skills training institutions impact on the poor is to know whether the children of the poor actually participate in such training provision at all. ***Research is needed on the social composition of skills training.***

Future research should also take into account the following:

- The multiple pathways to the labour market, through education and (possibly multiple forms of) skills training;
- The impact of education and skills training on occupational pluralism;
- The degree to which the wider environment, particularly the labour market environment, impacts on education and training outcomes.

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