

BEYOND THE BASICS: BALANCING EDUCATION AND TRAINING SYSTEMS IN DEVELOPING COUNTRIES¹

Robert Palmer
University of Edinburgh, Centre of African Studies

Citation

Palmer, Robert (2006). Beyond the Basics: Balancing Education and Training Systems in Developing Countries. *Journal for Education in International Development*, 2:1. Retrieved from <http://www.equipe123.net/JEID/articles/2/BeyondBasics.pdf> on [insert month] [insert day], [insert year].

Abstract

Since 1990, post-primary or post-basic education has received far less support than primary education. Yet, it is becoming increasingly clear that *concomitant* support is needed to both post-basic education and training (PBET) and to the development of a supportive labour market environment for economic growth and poverty reduction. Using evidence primarily from Ghana, this paper examines the reasons for the pattern of low returns to lower levels of education across SSA. To achieve the correct skill-mix for poverty reduction and growth, all levels of education and training need to be supported to bring about the kinds of expected developmental outcomes associated with education. Narrowly funding primary/basic education will not reach the Millennium Development Goals.

Since 1990 and the World Conference on Education for All, the attention of international development agencies has become increasingly focused on primary education, a focus that has become set in the time-bound targets of the Millennium Development Goals (MDGs). Meanwhile, post-primary or post-basic education has received less support. Research evidence in support of this targeting has associated primary education with a whole host of developmental outcomes. But, several of the outcomes associated with educational expansion have not materialised, especially in Sub-Saharan Africa (SSA),² and it is becoming increasingly clear that *concomitant* support to both the post-basic level and to the development of a supportive labour market environment, in particular, are crucial for both economic growth and poverty reduction. Pressure on the post-basic level is exacerbated by the massive increase of primary school leavers in many countries as a result of Education For All (EFA) policies.³

¹ This paper, which draws on a fuller country study by Palmer (2005b), is part of a six-country study coordinated by the Centre of African Studies at the University of Edinburgh and funded by the UK Department for International Development (DFID). For information on the full project, and country studies for Kenya, Tanzania, Rwanda, South Africa and India, see www.cas.ed.ac.uk/research/projects.html

² Ruth Kagia, of the World Bank, recently noted that in spite of major expansion of the education system during the last 30 years in SSA “many of the gains normally associated with education - better health, higher incomes, social cohesion, and greater equity - do not seem to have been realized by much of the population” (Kagia, 2005: 37).

³ The primary school leaver issue was a big theme in the 1960s when there were efforts, for example in Ghana, to demonstrate skills training coupled with job creation could lessen the unemployment problem. In Ghana, however,

The MDGs have become a focus for many development agencies. The MDGs include two education targets (targets 3 and 4) that are concerned with universal primary education and gender parity. Nowhere in the MDGs are elements of post-basic education and training (PBET) mentioned.⁴ Only with regard to gender parity is secondary education mentioned. Hence, the educational emphasis of the MDGs is obviously basic / primary education (universal primary education, UPE, by 2015). A literal interpretation of the MDGs could thus lead to a policy of diverting educational assistance funds towards basic education and away from senior secondary⁵ and PBET more widely. However, if PBET is necessary for sustainable poverty reduction and the achievement of the MDGs, then the effect of donors' funding primarily primary, or basic education, could reduce the effectiveness of their spending at this level, as well as in other social development sectors due to limited higher skills capacity and externalities associated with PBET. It is therefore vital to review the evidence of the role that PBET has to play in developing a country's capacity to reduce poverty and promote growth.

This paper argues that it is very timely to revisit the evidence for supporting PBET in developing countries. But, as will become clear, this paper is not advocating a funding shift to *prioritize* PBET per se, rather it is commenting on the need to take a holistic view of funding education – that in order to achieve the correct skill-mix for poverty reduction and growth, all levels of education and training need to be supported.

- Firstly, this paper notes how a combination of international education target setting, supported by research findings on the importance of primary education, and the climate of opinion during the last 25 years, has affirmed a focus on primary, and later basic, education above other sub-sectors.⁶ This is despite the recognition among many agencies of the importance of looking beyond basic education (in both directions).
- Second, we examine research evidence from Ghana, and elsewhere, on the *direct* impact uppersecondary education has on poverty reduction and growth.
- Third, we look more widely at the pathways by which PBET, including, but not limited to, upper secondary education, can contribute to poverty reduction and growth.
- Fourth, we examine a key concern regarding PBET in developing countries; that if PBET should be given more priority in educational financing, what is the right balance to achieve, and how is it achievable and sustainable? This section will take the example of SSS provision in Ghana and examine the issue of increased demand in the face of problems of access, quality, financing and relevance.
- Fifth, we examine the environment within which the education and training system operates in Ghana and assess the degree to which it catalyses education's developmental outcomes.

schemes such as the 'Worker's Brigades' had little impact on the overall unemployment problem (Palmer, 2005b: 32-33).

⁴ In this paper, post-basic education and training is used to refer to formal and informal skills development, secondary (upper) secondary and tertiary education. This is a wider concept than post-primary education and training (PPET) which is sometimes used to refer to lower secondary, upper secondary and a parallel technical and vocational education system.

⁵ In Ghana, 'senior secondary' equates to 'upper secondary' in some other countries, and refers to formal secondary education after the basic education level (primary and junior, or lower, secondary).

⁶ In fact, research findings over the last 40 years have pointed to the significance of the early years (see, for example Anderson and Bowman, 1965).

Research Evidence, Target Setting and the Changing Climate of Opinion⁷

In the World Bank, as in bilateral funding of education and skills development, there has long been a tension between targeting particular sub-sectors, such as vocational training or tertiary education, for particular policy reasons, and a holistic approach to the education and training sector. For example, it is interesting to note that as early as 1980, the Bank was warning that the case for primary education should not imply a sudden change in policy towards other subsectors:

Renewed emphasis on the importance of primary education, its high returns relative to secondary and higher education, should not start the pendulum swinging too far in the other direction. High levels of knowledge are necessary for many people who serve the poor, both directly as teachers, health workers and agricultural extension workers, and indirectly as researchers, technicians, managers and administrators...[t]here is for some purposes no better or cheaper substitute for the formal disciplines of conventional schooling. (World Bank, 1980b: 49)

Targeted approaches are understandable as an investment decision, but one of the unintended consequences of such priorities has sometimes been a failure to engage with the education and training system as a complex and interactive whole. This importance of planning for education and training as an integrated sector has sometimes been lost as the agency pressure to emphasise a particular sub-sector such as non-formal education, diversified secondary schools, technical and vocational provision, or 'high level manpower'. Thus, the Bank's early focus on infrastructure and on technical and vocational education (Jones, 1992) inevitably had consequences for investment in other sub-sectors. These education loans in the first decade after the independence of many developing countries were, not surprisingly, in the areas that were linked to the production of high level manpower. Indeed, at the very time when the World Bank was pursuing its 'high level manpower' emphasis in the 1960s, Anderson and Bowman (1965) argued that it was primary education that was the important factor in development but this ran counter to the then current climate of opinion and so less attention was paid to it.

It was only later that a redirection of Bank funding towards primary education was signalled by the 1974 *Education Sector Working Paper*. From the very late 1970s and 1980, research evidence was outlining the importance of primary education to economic and social development (cf. Cochrane, 1979; Colclough, 1980; Lockheed *et al.* 1980). But, it was the 1980 World Bank *Education Sector Policy Paper* (World Bank, 1980a) that signalled a change in view – away from the manpower planning of the 1970s – towards emphasizing the value of general education at the primary level (Marlaine Lockheed, personal communication, 18th June 2004).⁸ And at this time, the climate of opinion began to slowly shift in favour of primary education, with some attention given to the preschool years. But as late as 1988 the Bank's *Education in Sub-Saharan Africa* could still point to the fact that only 7% of all direct aid to African education was used to finance primary education (World Bank 1988: 103).⁹ This clearly argued for an adjustment in priorities – and this duly came with the Bank and several bilateral donors after Jomtien and the target setting associated with universal primary education.

⁷ This section draws in part on King and Palmer (2006a).

⁸ That is not to say that the 1980 paper promoted primary only, as it was quite measured.

⁹ This may be true of bilateral and multilateral aid, but it does not necessarily reflect the way in which national budgets addressed these issues.

Particularly since Jomtien, within the World Bank, and increasingly within other multilateral and bilateral agencies, education, and particularly primary education, have been held to have a powerful relationship with many other development outcomes, and, through these, with the reduction of poverty more generally.¹⁰ This built on the “evidence” of research efforts in the 1960s. Funding for other sub-sectors of the education and training system slowly waned as primary education became prioritised in education aid. So in the early 1990s, when Fuller and Holsinger (1993) produced a paper for the Bank on secondary education in developing countries, highlighting its importance, it did not have much impact in the Bank. It is likely that Psacharopoulos’ preoccupation with primary education’s rate of return meant that he did not pay much attention to the Fuller-Holsinger study (Wadi Haddad to King and Palmer, personal communication, 15th June, 2004). Psacharopoulos is well known for his many rate-of-return to education (RORE) studies in the Bank that were critical in allowing the education team in the Bank to show that basic education was crucial to make a difference to income. In 1988, George Psacharopoulos was head of a section of the education team concerned with research and evaluation.

Hence the primacy of primary education became symbolised in international target setting at Jomtien (1990), Dakar (2000) and to its position as an MDG (2000). Statements regarding the ‘developmental’ impact of basic, and especially primary, education on almost every other millennium goal is found in chapter one of the EFA Global Monitoring Report of 2002 (UNESCO, 2002), ‘Education for all is development’. The 2003 EFA Global Monitoring Report (UNESCO, 2003) also points out the positive benefits of education, and particularly basic education.

Donors responded to this climate of opinion to the extent that now, several key donors channel the majority of their aid for education into achieving the two Education MDGs. For example, DFID allocates approximately 80% of their aid for education to basic and primary levels (DFID, 2000: 36).¹¹ Between 2001-2002 USAID allocated 72.2% of total education funding to basic education (UNESCO, 2004: 191).

Now it seems as if the climate of opinion is beginning to shift yet again and research evidence, which has existed for many years is being brought into use. Several recent international documents highlight the importance of looking at post-basic levels of education and training (see, for example the Commission for Africa, the UN Millennium Project, the World Bank’s *Constructing Knowledge Societies*, the World Bank *Secondary Education Policy Paper*, and the new World Bank *Education Sector Strategy Update*).¹² For example, one of the objectives of the new USAID education strategy, *Improving Lives Through Learning* (USAID, 2005), explicitly focuses beyond basic education to enhance knowledge and skills for productivity.

That is not to say that agencies have been unaware of the importance of a well-balanced joined-up education and training system, and hence of the importance of PBET as well as basic education. In fact, as we noted earlier, the Bank recognised this back in 1980 (World Bank, 1980b).¹³ It is just that,

¹⁰ Much of the earliest research argued that primary education was associated with growth rather than poverty reduction.

¹¹ The 2005 Global Monitoring Report estimates that 85% of total DFID aid to education went on the basic education level 2001-2002 (UNESCO, 2004: 191).

¹² Outlined in King *et al.*, 2005. See also King and Palmer (2006a).

¹³ See King and Palmer (2006a) for more detailed discussion.

in practice, since Jomtein the emphasis on MDG targeting results in development assistance that is skewed towards basic education, and especially towards primary education.¹⁴

Education For All: For What? The Declining Benefits of Basic Education in Ghana¹⁵

Despite the narrow targeting of the MDGs on primary education, it is becoming more widely acknowledged (e.g. by the World Bank and recently USAID) that there are no semi-automatic outcomes to investment in basic education, and indeed PBET is crucial for poverty reduction efforts. Heavy investment at the basic, especially primary, education level (while acknowledging that quality needs improvement at this level), without also widening access to, and improving the quality of, PBET, is insufficient for equitable and sustainable poverty reduction in Ghana or, indeed, other developing countries.

The narrowness of the education MDGs has both reflected and exaggerated a trend for donors in Ghana, and elsewhere, (like DFID and USAID) to focus on basic, especially primary, education. The government, on the other hand, has a more holistic view of education and training and is also keen to expand opportunities at the post-basic level.¹⁶ This has led to government-donor disagreement, tension, and indeed questions about policy ownership (cf. Palmer, 2005b).

We argue that, for the education and training system in Ghana to bring about the kinds of expected developmental outcomes so often axiomatically associated with education, investment should not be too narrowly targeted at the MDG of UPE, but should treat the education system as an interdependent whole. Indeed, given the crucial multi-way synergies between all levels of the education and training system, if educational funding is too closely tied to achieving the MDG-UPE target by narrowly funding primary/basic education, and not other levels, it might be that this target will actually be missed and will likely be unsustainable post 2015. Indeed it is already admitted that for many of the poorest group of countries the 2015 target will be missed. The progress towards the Education MDGs in Ghana, and other developing countries, is already promising to produce some of the largest cohorts of basic education graduates ever witnessed. It is, therefore, crucial to ask, Primary Education For All: For What?¹⁷

Ghanaian parents and students, who are by far the best judges or ‘researchers’ of the education system, are very much aware of the poor quality of many schools at the basic level, and of the difficulty in finding formal employment upon completion (cf. Palmer, 2005b). The benefits of a basic education, alone, for many of the poor, are becoming questionable.

Traditionally, rate-of-return to education (RORE) estimates (cf. Psacharopoulos, 1994; Psacharopoulos and Patrinos, 2002) have long shown primary education to have both the largest

¹⁴ See the special issue of the *International Journal of Educational Development* edited King and Rose on international targeting in education (2005, vol. 25).

¹⁵ In Ghana, basic education refers to six years of primary and three years of lower secondary. However, the new education reforms of 2004, propose to expand ‘basic education’ to include two years of kindergarten. See Palmer (2005b) for a full discussion on the new education reform in Ghana.

¹⁶ Some donors in Ghana, notably the World Bank and a recent Spanish grant facility, do have new programmes in support of post-basic, principally tertiary level, education, but the overall emphasis of donor support is at the basic education level. It should also be pointed out that DFID, for example, contributes 45% of its total aid budget to multilateral institutions. 22% of this 45% (ie c.10% of DFID’s aid) goes to the World Bank. Hence it could be argued that DFID indirectly supports post-basic education through Bank projects (www.dfid.gov.uk).

¹⁷ The question Education for What? is critical and decades ago spawned a series of innovations to bring usable skills to primary school leavers.

private and social returns for SSA, and the most recent average RORE continue to show this (Table 1). RORE have been used to strongly argue for prioritising investment at the primary education level in developing countries.

Table 1. 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 and Patrinos, 2002: 13

But these averages for SSA mask very different country data, which have been changing over time. For Ghana in 1967, the social returns to primary education were the highest (table 2), 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 2. 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: 18.

For Ghana in 1991, it was at the Senior Secondary school (SSS) level that the private and social rates of return are the highest (table 3). The private and social returns to SSS (vs. Junior Secondary School, JSS) are higher than the returns to JSS (vs. primary).¹⁸ At the higher level of education, the private returns have dropped significantly since 1967, suggesting that the increasing numbers of youth graduating at this level has not been matched with an increase in the availability of waged jobs, and/or that the quality of education has declined.

Table 3. 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 and Thomas, 1997: 46.

The Human Development Africa Region World Bank report comments on the figures in table 23 from Canagarajah and Thomas (1997), noting that the relatively low rates of return to JSS (private at

¹⁸ Both JSS and SSS in Ghana are three years in duration.

13.5% and social at 10.6%) 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. In contrast, the high rates of return to SSS (at 19.5% and 14% respectively) indicate that SSS seems to be functioning as terminal education for entry into the labor market.¹⁹ (World Bank, 1998: 24-35, cited in Akyeampong, 2002: 19).

However, the RORE analysis has been strongly critiqued by Bennell (1996) on numerous counts who concludes that “the conventional RORE patterns almost certainly do not prevail in SSA under current labour market conditions” (*ibid*: 195).²⁰ 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 (1996) 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). The value of Psacharopoulos-type RORE estimates for Ghana is therefore questionable given the country’s huge informal economy.²¹

While acknowledging the limitations of quantitative calculations, and RORE estimates for SSA in particular, new research evidence suggests that the primary school on its own has a limited effect on poverty reduction. As we shall argue, investments at the primary level have to be complimented by suitable investments at the post-primary level and by investments in a wider supportive environment in order for education, at any level, to result in the kinds of positive outcomes associated with it.

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.²²

Recent quantitative research evidence from Ghana (*e.g.* Canagarajah and Pörtner, 2003; Teal, 2001; World Bank, 2004: Annex K) also points to the importance of formal post-basic education as a means of accessing higher incomes and hence combating income poverty. Statistical analysis shows that ‘there appears to be low return to having a primary education’ (Canagarajah and Pörtner, 2003: 59), and that middle school education (or JSS) has only a marginal impact. A World Bank report finds that ‘significant positive returns are only found for senior secondary and tertiary graduates’

¹⁹World Bank, 1998: 24-35, cited in Akyeampong, 2002: 19.

²⁰ Nonetheless, Bennell is not arguing that because the present estimation strategies are not working fully, there should be a switch to prioritizing post-basic levels.

²¹ For a history of the informal sector concept in SSA see Palmer (2004a), and Palmer (2006) for the informal sector in Ghana.

²² 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 and Westergaard-Nielsen (1996) for Zambia, and Söderbom, Teal, Wambugu and Kahyarara (2003) for Kenya and Tanzania (cited in Kingdon, Sandefur and Teal, 2005: 30).

(World Bank, 2004: 197). Two main 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;
- 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.

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 six 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: 1).²³ Indeed, there exist numerous studies showing that school quality is an important determinant of the rate of return to education (for example, see Behrman and Birdsall, 1983; Glewwe, 1999; Hanushek, 1995). For Ghana, Glewwe (1996) estimated the returns to three types school quality improvements²⁴ and found that “the rates of return to those interventions were often higher than those from an additional year of schooling” (Glewwe, 2002: 469). 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.

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 (see also Section 3 below). Given the investment focus in Ghana on primary or basic education to a greater extent than on the post-basic level, the lack of teachers and educational managers, who are products of post-basic education, may have resulted in this declining quality at the lower levels (King and Palmer, 2006a: 22-33; Palmer, 2005b).²⁵

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

²³ The most recent Education For All Global Monitoring Report (UNESCO, 2004) examines the critical importance of the quality of education on outcomes.

²⁴ These included; providing two more textbooks per student, providing blackboards and repairing classrooms with leaky roofs.

²⁵ See Palmer, 2005b: 90-95 for a discussion on educational quality in Ghana.

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: 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. As we note below (section 3), it has been argued elsewhere (King and Palmer, 2006a) that the post-basic system itself contributes to the development of the wider environment beyond education – which can help catalyse basic education outcomes.

Further, in looking for some of the underlying reasons for the failure of expected outcomes of education to materialise, it is interesting to revisit some of the research that underpinned the policy support to primary education in the 1980s and beyond. Indeed, if one examines policy literature it is far from uncommon that the alleged positive developmental outcomes of basic education are frequently cited as self-evident, without reference to the original studies upon which the links between education and productivity were first proposed (cf. King and Palmer, 2006a; King, Palmer and Hayman, 2005). And, looking back at some of the early research upon which the policy literature draws, one can see that research evidence is often misrepresented to fit with the then climate of opinion (ibid.). For example, the well known finding that four years of education increases agricultural productivity (cf. Lockheed et al. 1980) has frequently been misrepresented. Lockheed et al. actually argued that education only had an impact *in a supportive modernising agricultural environment* – an environment far removed from the largely traditional rural farming realities in sub-Saharan Africa today (King and Palmer, 2006a; King et al., 2005).

But it is not just higher incomes that appear to be related to upper secondary education levels. Research evidence from Ghana, and other developing countries, shows the importance of upper secondary and other post-basic levels in relation to labour allocation to more productive activities, health indicators, remittances, and the ability to make use of technological advances (cf. Palmer, 2005b). Lewin further highlights the importance of secondary education and points to a number of reasons why it is timely to refocus educational financing to include this level (Lewin, 2004).²⁶

Post-basic – Basic Interactions

The contemporary formal post-basic system in Ghana in general excludes the poor, with most of the poor only able to access a basic education at best. But this should not be a reason that, in order for funding to be pro-poor, only the primary/basic level should be targeted to achieve maximum impact. If post-basic education is to become less exclusive, there must be new investments directed towards

²⁶ 1. EFA policies have led to a massive increase in primary school leavers. 2. MDG2 and MDG3 are unachievable without expanded post-primary involvement. 3. Secondary schooling helps to reduce HIV/AIDS (MDG6). 4. As primary school becomes universalised, participation at secondary level will become a major determinant of life chances and a major source of subsequent inequality. 5. National competitiveness depends on higher levels of education. 6. Secondary curriculum reform has been neglected. 7. Secondary education is crucial to post-conflict situations; 8. Increased access to secondary is not possible under current cost structures.

improving access of the poor to post-basic education (cf. Lewin, 2004), and an understanding of all that is entailed by PBET, in a context of investment in small business to allow the skills to take root.

There are three main pathways to poverty reduction that PBET help create even though the poor are very seriously under-represented at this level. The first pathway involves poor people themselves who, despite the numerous barriers faced, manage to gain access to PBET and are able to use their education and skills to improve their livelihoods directly.

The second is the role of PBET in the development of a wider educational environment that improves the outcomes of primary/basic education. The *delivery context* at all levels of the public education and training system is weak: hence the context in which education and skills are delivered does not lead to the expected outcomes of the education and training system. Post-basic education, through training teachers, developing new curricula, training educational managers and supervisors has a key role in raising the quality and improving the delivery context of education at all levels. Increasing the quantity and quality of basic education in a country without also increasing the quantity and quality of post-basic education and training will inevitably result in capacity constraints. This is most obviously illustrated by the huge increases in primary enrolments in many developing countries over the last decade, and the resulting dilution of quality due to lack of trained teachers, educational managers and supervisors. Moreover, if the growth in the number of basic education students in Ghana is to be maintained, these students, and their parents, need to see adequate, accessible and meritocratic post-basic education and training opportunities. Hence, the perception of access to the formal PBET environment has a direct effect on basic education completion as well as on the motivation of students to perform well at school. Without improved access to the PBET level, basic education outcomes in Ghana will suffer.²⁷

The third is the role of PBET in the development of the wider non-educational environment - eg. training agricultural and health professionals, employment creation, developing a knowledge economy, stimulating economic growth and promoting innovation, inventiveness and research that catalyses education-developmental outcomes at all levels of education. 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 institutional capacity that is required for economic growth and poverty reduction (World Bank, 2002: xx). Thus PBET contributes to the development of a supportive *transformative context* that catalyses a country's education and training outcomes (at all levels).

Senior Secondary Schools in Ghana: Increased Demand in the Face of Problems of Access, Quality, Relevance and Financing

If we are arguing for a more balanced education and training system, a key issue is the balance to achieve, and how to achieve and sustain it. In taking a more holistic view of an education and training system and looking for ways to expand PBET in developing countries, we are faced with numerous concerns. This section takes the example of SSS provision in Ghana and examines the issue of increased demand in the face of problems of access, quality, financing and relevance.²⁸

²⁷ For a general discussion, see King and Palmer, 2006a. For evidence from Ghana, see Lavy 1996.

²⁸ We might equally have taken the example of other forms of PBET, such as TVET or skills training more generally to discuss here. By discussing only SSS in this section it is not suggested that support to other forms of PBET, especially skills training, are not also needed. See section 6, this paper, for a brief note on skills training. For a fuller

Access

In recent years in Ghana, there has been increased demand placed on formal academic second-cycle (and tertiary) institutions. These increases were not foreseen in the Annual Education Sector Operational Plan 2003-2005 (GoG/MoEYS, 2003). Over the period, 2001-02 to 2004-05, total university enrolment has increased by 59% and total polytechnic enrolment has increased by 22.2% (table 4). Over the period 2002-03 to 2004-05, SSS enrolment increased from 301,120 to 333,002 (c.11% increase) (table 4).

Table 4. Access indicators for SSS and Tertiary Education

	Actual				Target
	2001-02	2002-03	2003-04	2004-05	2004-05
SSS	-	301,120	328,426	333,002	262,410
University	16,184	-	63,576	73,410	45,537
Polytechnic	20,422	-	24,353	24,983	21,872

Source: GoG, 2004b; GoG, 2005

Indeed, at the same time that many donors are trying to achieve the education MDGs (particularly UPE), it is now very difficult for the Ghanaian government to curb demand for formal second and tertiary education. For example, at the SSS level demand is increasing for three reasons: *i*) student and parental demand; *ii*) the decline in the occupational currency of the basic education certificate (BECE); *iii*) the political consequences of capping second-cycle education.

This increase in the demand for SSS level education is to be expected. Firstly, over the next few years the government of Ghana will see the first EFA cohorts of the mid 1990s graduating from JSS, and many of these graduates – and their parents – will want to continue further in education. Secondly, as more and more JSS graduates are produced, year on year, there will be a gradual decline in the occupational currency of the BECE. Hence, there will be increasing pressure to obtain higher qualifications as the BECE loses value. Indeed, it might be argued that the majority of formal sector jobs now require a post-basic educational qualification. Thirdly, the demands of parents and JSS graduates for better access to second-cycle education, if not met, could have serious political ramifications.

Approximately 35% of JSS graduates gain access to the three year SSS.²⁹ Access to formal SSS education is usually out of reach of the poor. A recent study revealed that the poorest 10% of Ghana's population is unlikely to benefit from public expenditure on either secondary or tertiary levels (Danso-Manu, 2004). A key question, therefore, is how is it possible to get more of the poor into formal second-cycle institutions so that they get improved access to the 'direct benefits'?³⁰

discussion on skills training in Ghana see Palmer (2005a; 2006), or King and Palmer (2006a; 2006b) for a more general treatment of the issues.

²⁹ Although the proposed new education reforms would extend this to four years, this decision seems to be unpopular in Ghanaian civil society and among some development partners.

³⁰ Another question is what other post-basic options exist for JSS graduates, for example in skills training, and how can these be supported. (See section 6 of this paper).

Quality

The expansion of the second-cycle level in Ghana leads to the possibility of quality dilution. Just as the massive expansions in primary education has led to reduced quality in many developing countries, there exists a real possibility that rapid expansion of the second-cycle level will reduce quality. In Ghana, the quality of many second-cycle institutions is already low, as seen by low exam scores. Teachers' salaries are low and are often delayed, which results in a deterioration of morale and commitment and often forces teachers and instructors to seek additional sources of income, perhaps resulting in less time spent in the class room and hence impacting on quality. With approximately 90% of the educational budget spent on salaries, little is left for educational investment in Ghana (see Palmer, 2005b). This results in poor quality teaching infrastructure (class rooms, work-shops, libraries, laboratories, furniture) and learning materials (text-books and other teaching materials).³¹

Financing

The costs of hugely expanding the second-cycle level will be well beyond the already stretched education budgets of most developing countries, meaning that increased access to this level is not possible with current cost structures (cf. Lewin and Caillods, 2001). In the case of Ghana, there are serious questions to be asked about how the expanded vision of secondary education will be funded. There is concern among some of the donors that the rapid expansion of post-basic levels of education in Ghana (seen by enrolment figures in table 4) risk undermining the push for the education MDG of UPE by 2015 (cf. Palmer, 2005b). For example, one education advisor of a major development partner made it clear that the preference was for the Ghanaian government to refocus on the MDG target of UPE, and that the increases in enrolments at the SSS and tertiary levels could result in a decrease in monies available for basic education.

Looking at the total resource envelope for education in Ghana (table 5) we see that resources to primary education, as a percentage of total resources, has decreased from 39.7% in 2003 to 30.7% in 2005. However, there has been an actual increase in resources to the primary level over the same time frame. At the JSS level, actual resources available in 2005 are similar to 2003, but the overall percentage of total resources for the JSS level has decreased from 22.1% in 2003 to 13.5% in 2005. The most significant increases in resources, in both percentage and actual terms, can be seen at the SSS and tertiary levels.

³¹ The decentralised nature of the education and training system means that District Assemblies are largely responsible for the construction and maintenance of infrastructure. However, competing demands at district level often mean that the funding is inadequate and that infrastructure projects are delayed.

Table 5. Total Resource Envelope by Level of Education 2003-2005 (Millions cedis)³²

	2003*		2004**		2005**	
	Amount	% allocation	Amount	% allocation	Amount	% allocation
Pre-school	99,826	2.4	192,079	4.1	272,468	4.0
Primary	1,643,964	39.7	1,656,297	35.1	2,096,984	30.7
JSS	917,907	22.1	765,950	16.3	919,594	13.5
SSS	632,151	15.3	654,996	13.9	1,388,031	20.3
NFED	37,937	0.9	76,898	1.6	70,207	1.0
SPED	14,959	0.4	19,806	0.4	19,793	0.3
Teacher Education	167,580	4.0	212,370	4.5	266,718	3.9
TVET	46,765	1.1	53,667	1.1	93,483	1.4
Tertiary	577,479	13.9	1,030,489	21.9	1,553,305	22.8
MGMT and subvented agencies	5,655	0.1	49,759	1.1	145,204	2.1
TOTAL	4,144,223	100%	4,712,311	100%	6,825,787	100%

* actual

** estimates

Sources: GoG, 2005: 97; GoG, 2004b: 111.

Table 6 (below) shows that, as a percentage of donor resources, primary education funding has gone down from 68.8% in 2003 to 40.8% in 2005. But actual resources to the primary level have increased from 171 million *cedis* to 309 million *cedis* over the same time frame. Since 2004, the major contributors to the huge increase in available donor resources, particularly at the post-basic level, are the African Development Bank (support to Senior Secondary Schools for the upgrading of schools to model SSS standard); the World Bank (Education Sector Project, which has three components in support of capacity building in the Main Ministry and Ghana Education Service, in support of implementation of the Education Strategic Plan as it relates to basic education, and in support of tertiary education); and the Spanish Grant Facility (for the procurement of computers and other equipment for the polytechnics and the University of Development Studies).

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

Table 6. Donor Resources by Level of Education 2003-2005 (Millions cedis)³³

	2003*		2004**		2005**	
	Amount	% allocation	Amount	% allocation	Amount	% allocation
Pre-school	2,846	1.1	3,395	4.1	3,817	0.5
Primary	171,239	68.8	233,567	35.1	309,535	40.8
JSS	50,349	20.2	27,300	16.3	29,635	3.9
SSS	0	0.0	52,326	13.9	85,755	11.3
NFED	23,200	9.3	52,326	1.6	46,200	6.1
SPED	0	0.0	0	0.4	0	0.0
Teacher Education	562	0.2	23,641	4.5	29,462	3.9
TVET	562	0.2	14,000	1.1	6,800	0.9
Tertiary	0	0.0	183,684	21.9	187,498	24.7
MGMT and subvented agencies	0	0.0	29,544	1.1	45,755	6.0
HIV/AIDS					14,492	1.9
TOTAL	248,758	100%	619,783	100%	758,949	100%

* actual

** estimated

Sources: GoG, 2005: 95; GoG, 2004b: 109.

The proposals set out in the 2004 White Paper on Educational Reforms (GoG, 2004a), include increasing the duration of SSS from three to four years and diversifying this level have huge cost implications (cf. Palmer, 2005b). These proposals worry development partners in Ghana who see them as potentially taking money away from basic, and especially primary, education (Palmer, 2005b). Nonetheless the government of Ghana appears to be very keen to push for this home-grown education strategy in spite of donor pressure to shift its thinking. But given financial constraints, it is not clear how the senior secondary level can be expanded significantly and quality ensured at this level, as well as quality improvements at the basic level achieved so that it does not deteriorate further. This leads to the question of which financing mechanisms are most appropriate for funding post-basic education and training expansion,

Relevance

Making education more 'relevant to the world of work' has been the preoccupation of repeated education reforms in Ghana since the mid 19th Century (cf. Palmer, 2005b). The most current reform, outlined in the 2004 White Paper on Educational Reforms, seems to be taking Ghana backwards to the era of increased length of SSS (with the associated increase in recurrent expenditure) and into the realm of diversified secondary schools, whose effectiveness has long been regarded as questionable (World Bank, 1980a). Indeed, one of the underlying assumptions implicit in the 2004 White Paper on Education Reforms in Ghana is that the reforms will somehow solve problems such as unemployment. For example, the new diversified 'Senior High Schools' proposed in the reforms intend to train the youth 'for entry into the world of work'. This echoes previous educational reforms over the past 150 years and suggests that the government still believes that the solution to the unemployment issue in Ghana today lies in the secondary school, or rather what is taught in the secondary school. But as Philip Foster noted of Ghana back in the 1960s, 'schools are remarkably clumsy instruments for inducing prompt large-scale changes in underdeveloped areas,' (Foster, 1965: 144) and the unemployment problem cannot be solved through the school. In Foster's view, it is

³³ Donor resources for 2003/4 include DFID, IDA, ADB, SPAG, JICA, USAID, and UNICEF. Donor resources for 2005 include DFID, IDA, ADB, BADEA, SPAG, JICA, USAID, and UNICEF.

largely what happens outside of the school that determines how educational outcomes translate into employment outcomes. Unemployment is an economic, not an educational, problem.

Education, education, education. Then what?

*Education for All and Work for All are two sides of the same coin*³⁴.

But having a balanced basic-PBET system is still insufficient for the expected developmental outcomes to materialise from educational investment. In Ghana, as elsewhere, too much is often expected of the education system itself without concomitant support to the *transformative context*, the wider enabling environment within which education operates.

Ghana's policy places economic growth at the centre of its fight against poverty (GoG, 2003a: 42-3). It is the area of 'gainful' employment, particularly in the private sector that the government sees as 'the main engine of growth' (GoG, 2003a: 30) for Ghana to enter the 'golden age of business' (GoG, 2003b). Employment / self-employment creation is thus placed centre stage in the fight against poverty in Ghana. However, the government rationale is that before employment / self-employment can be created, the poor need skills and better education. Moreover, since budget constraints mean that the government cannot create employment for the people, their primary role is twofold: providing education and skills training, and creating an enabling environment for private sector growth. In the latter of these, support to private sector growth is largely concentrated in the formal sector, with informal enterprises receiving little support from government. Indeed, much of the emphasis in politics and policy remains on education as a main route to 'development', and the need for literate, skilled people as a prerequisite for poverty reduction is seen as essential. Ghana's President Kuffour was recently quoted as saying in a Ghana daily newspaper that 'Education is the key to development' (*Chronicle*, 2004). We have to ask, therefore, is there too much focus on the education and training system itself and too little focus, action and coordination on designing a supportive pro-poor informal economy strategy?

Conclusion

To tackle the suggestion that the expected outcomes of basic education have not materialised, with research evidence pointing to the higher benefits of secondary and other formal post-basic levels compared to basic education, and to ensure that education at all levels is sustainable and has a chance to deliver some of the expected benefits, a multi-pronged strategic approach is required.

Firstly, when the quality dimension of schooling is considered, the low returns to the lower years of schooling imply that attention does need to be given to improving the quality and delivery context of basic education. Furthermore, primary education 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, 2005b). 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 PBET system (Palmer, 2005b).

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. As we note above, the present status quo is for formal post-basic education in Ghana to largely exclude the poor, and for too much

³⁴ Daniel and Hultin 2002: 2.

public money to be spent on secondary and tertiary levels.³⁵ While acknowledging the essential role that formal post-basic education plays in poverty reduction and growth (King and 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 and donors, for example, might explore mechanisms by which they can provide funds to support the poor through post-basic education.

Secondly, it is worth underlining that PBET does not simply refer to formal education and training at the secondary or tertiary levels but encompasses technical and vocational education and training (TVET) that occurs in both formal and, more often, informal settings.³⁶ TVET has been particularly neglected in developing countries. In Ghana it has received too little emphasis, and one which echoes the international trend in the neglect of skills training. Skills training does not appear in the MDGs and has been side-lined in favour of investment in primary education.³⁷ In Ghana, donors largely do not work in this area, or where they have (such as the Bank's Vocational Skills and Informal Sector Support project 1995-01) the programmes have largely been judged unsatisfactory. Government budget allocation to the technical and vocational education and training (TVET) sector is small at just approximately 1.3%,³⁸ and there is virtually no support to informal sector training. However, various skills strategies aimed at providing the youth with 'employable skills' have been promoted by the government over the years. Current programmes include various public and private formal Vocational Training Institutes (VTIs), and other government led non-formal programmes such as Integrated Community Centres for Employable Skills (ICCES) and the Skills Training and Employment Placement programme (STEP). But their limited impact is not simply due to their limited scope when compared to the total numbers of youth who need skills, but also because their implicit objectives follow the underlying assumption of the Ghanaian skills development agenda – that the skills provided will lead to productive and gainful work. But there is virtually no empirical research evidence on the employment/self-employment outcomes of graduates from these programmes in Ghana.³⁹ For their part, the government would like to believe that the objectives are largely met: that the youth have successfully acquired marketable skills and become gainfully

³⁵ Despite only 10% of the population achieving an education level of SSS of higher (GSS, 2000: 8, table 2.1), of the total resource envelope for education in 2005, an estimated 47% was allocated to SSS, teacher and tertiary education (table 5, this paper).

³⁶ Technical and vocational education and training (TVET) is used here to refer to education and training, occurring in formal, non-formal and (formal and informal) on-the-job settings.

³⁷ It is worth recalling that the Dakar, and especially the Jomtien, agreements made skills a much more explicit priority. The six Dakar goals included the goal of 'ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes' (UNESCO, 2000). At Jomtien, article five of the World Declaration included 'skills training, apprenticeships, and formal and non-formal education programmes' (WCEFA, 1990).

³⁸ The figure of 1.3% applies to the Ministry of Education and Sports in Ghana. However, other ministries, especially the Ministry for Manpower, Youth and Employment, is very much involved in skills development. Unfortunately, figures related to expenditure on skills training for this ministry were not available at the time of writing.

³⁹ Internationally, there are certainly a number of skills training projects which appear to have managed successfully to reach the poor and increase their incomes and productivity. The evidence, which is sparse, is that these initiatives are hugely demanding in terms of time, commitment, methodology, curriculum and support structures. Also the numbers actually reached are extremely small (King and Palmer, 2006b). See Palmer (2006) for some new evidence related to the employment outcomes of various skills training initiatives in Ghana.

employed. Further, while government intervention has been focussed on pre-employment skills training, there has been little attention paid to supporting traditional apprenticeships in the informal economy. Attention, therefore, needs to be given to making skills development, both delivered in the informal economy and pre-employment, more effective (Palmer, 2005a).⁴⁰

Thirdly, 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 supportive measures – particularly for the informal economy and dealing with the numerous decent work deficits that inhibit education and skills training from translating into poverty-reducing employment.⁴¹ In Ghana, this would include, among other things assigning responsibility to one ministry for the informal economy⁴²; reforming and substantially increasing support to existing micro- and small-enterprise (MSE) programmes like the National Board for Small Scale Industries (NBSSI) that are at present largely ineffective⁴³; tackling the barriers that informal enterprises face in gaining credit and business support⁴⁴; tackling health and safety issues. Likewise, donors need to refocus attention onto the informal economy. These issues noted here often appear in policy rhetoric but are still largely absent on the ground. In 2005, there are hopeful signs that a new informal sector strategy is being developed, but again Ghana's history is strewn with the wreckage of unsupportive MSE strategies and projects. In particular, the history of support to MSEs in the informal economy has not revealed much action beyond the political and policy rhetoric. Moreover, private sector development in donor circles too often excludes discussion of the informal economy (cf. Palmer, 2005a).

This paper has aimed to make the point that developing countries, like Ghana, require investment in all parts of the education and training system, and funding should not be narrowly channelled to basic education alone. This is recognised by the Ghanaian government and the new White Paper on Educational Reforms clearly spells out a strong post-basic rationale. At the same time that many development partners target the majority of their education funding towards basic education, there is, nonetheless, an increasing emphasis, especially from the World Bank, on the role formal PBET serves in meeting the MDGs and in reducing poverty indirectly among the poor. This holistic view is more likely to create the skill-mix needed for sustainable growth in Ghana. A second point highlighted in this paper, is that education, at any level, can only translate into poverty reduction and growth in the presence of a supportive environment.

⁴⁰ See Palmer (2005a) for a full discussion on skills development in relation to Ghana's informal economy and the importance of developing a pro-poor informal economy strategy.

⁴¹ 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).

⁴² As of August 2005, the Ministry of Private Sector Development and the President's Special Initiative in Ghana has been assigned responsibility for the formulation of an informal sector strategy in Ghana. But it remains to be seen how inclusive this strategy will be, which elements of the informal sector will be supported and the extent to which this strategy coordinates informal sector support across the different ministries and sectors that the informal economy encompasses.

⁴³ The NBSSI needs reforming so that it functions as a facilitator agency, rather than as a service provider agency as is the case now. There needs to be less of a focus on the dynamic manufacturing enterprises only and more attention paid to the smaller enterprises that have potential.

⁴⁴ For example, the government should encourage the formation of mobile bankers along the lines of the Atwima-Mponua Rural Bank in Ashanti, but provide funding so that these 'mobile bankers' can also be trained to provide door-to-door business support in situ to informal sector enterprises. Having mobile bankers/business advisors would greatly increase outreach and is preferable to having 'static advisors' in an office, inaccessible to the entrepreneurs that need the advice (see Palmer, 2004b).

References

- Akyeampong, A. (2002) *Vocationalization of Secondary Education in Ghana, a Case Study*, Mimeo Prepared for Regional Vocational Skills Development Review, Human Development, Africa Region, World Bank 16th September, 2002.
- Anderson, A. and Bowman, M. (1965) (eds.) *Education and Economic Development*, Aldine: Chicago.
- Appleton, S. Hoddinott, J. and J. Mackinnon (1996) "Education and Health in sub-Saharan Africa," in *Journal of International Development* 8(3): 307-339.
- Barro, R. (1999) "Human Capital and Growth in Cross-Country Regressions," in *Swedish Economic Policy Review* 6(2): 237-77.
- Behrman, J. and Birdsall, N. (1983) "The Quality of Schooling: Quantity Alone is Misleading," in *American Economic Review* 73(5): 928-46.
- Bennell, P. (1996) "Rates of Return to Education: Does the Conventional Pattern Prevail in sub-Saharan Africa?" in *World Development* 24(1):183-199.
- Canagarajah, S. and Pörtner, C. (2003) *Evolution of Poverty and Welfare in Ghana in the 1990s: Achievements and Challenges*, Africa Region Working Paper Series No. 61, World Bank: Washington, D.C.
- Canagarajah, S. and T. Thomas (1997) *Ghana's Labor Market (1987-92)*, Policy Research Working Paper 1752, World Bank: Washington, D.C.
- Chronicle* (2004) "President Kufuor Assures Nation of Free Education," in General News of Thursday, 4 November 2004, <http://www.ghanaweb.com>, downloaded on 17.01.05.
- Cochrane, S. (1979) *Fertility and Education: What Do We Really Know?* Washington, D.C.
- Colclough, C. (1980) *Primary Schooling and Economic Development: A Review of the Evidence*, World Bank Staff Working Paper No.399. World Bank: Washington, D.C.
- Daniel, J. and Hultin, G. (2002) "A Joint Message from UNESCO and ILO," in *Technical and Vocational Education and Training for the Twenty-first Century*, UNESCO and ILO Recommendations, UNESCO/ILO, Paris.
- Danso-Manu, K.B., (2004) *Education, Poverty and Public expenditure in Ghana, 2003*, GSS: Accra.
- DFID (2000) *Eliminating World Poverty: Making Globalisation Work for the Poor*, White Paper on International Development. DFID: London.
- Foster, P. (1965) "The Vocational School Fallacy in Development Planning," in Anderson, A. and Bowman, M. (eds.) *Education and Economic Development*. Aldine: Chicago.
- Fuller, B. and Holsinger, D. (1993) *Secondary Education in Developing Countries*, Education and Social Policy Department Discussion Paper Series No. 7, World Bank: Washington, D.C.

- Glewwe, P. (2002) "Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes," in *Journal of Economic Literature* 40(2): 436-482.
- Glewwe, P. (1999) *The Economics of School Quality in Developing Countries*, St. Martin's Press: New York.
- Glewwe, P. (1996) "The Relevance of Standard Estimates of Rates of Return to Schooling for Education Policy: A Critical Assessment," *Journal of Development Economics* 51: 267-90.
- GoG (2005) *Preliminary Education Sector Performance Report July 2005*, MoEYS: Accra.
- GoG (2004a) *White Paper on the Report of the Education Reform Review Committee*, GoG: Accra.
- GoG (2004b) *Preliminary Education Sector Performance Report 2004*, MoEYS: Accra.
- GoG (2003a) *Ghana Poverty Reduction Strategy Paper, An Agenda for Growth and Prosperity 2003-2005*, IMF Country Report No. 03/56.
- GoG (2003b) *National Medium Term Private Sector Development Strategy 2004-2008*. Vol. 1 & 2, GoG: Accra.
- GoG/MoEYS (2003) *Annual Education Sector Operational Plan 2003-2005*, MoEYS: Accra.
- Ghana Statistical Service/ GSS (2000) *Ghana Living Standards Survey: Report of the Fourth Round (GLSS 4)*. Ghana Statistical Service: Accra.
- Hanushek, E. (1995) "Interpreting Recent Research on Schooling in Developing Countries," in *The World Bank Research Observer* 10(2):227-46.
- ILO (1999) *Decent Work, Report of the Director-General*, International Labour Conference, 87st Session 1999, Geneva.
- Jones, P. (1992) *World Bank Financing of Education: Lending, Learning and Development*, Routledge: London.
- Kagia, R. (2005) "Has Education Failed Africa?" in Beveridge, M., King, K., Palmer, R. and Wedgwood, R. (eds.) *Reintegrating Education, Skills and Work in Africa*, CAS, University of Edinburgh, Edinburgh.
- King, K., Palmer, R. and Hayman, R. (2005) "Bridging Research and Policy on Education, Training and Their Enabling Environments," in *Journal of International Development* 17(6):803-817.
- King, K. and Palmer, R. (2006a) *Education, Training and their Enabling Environments: A Review of Research and Policy*, Post-basic Education and Training Working Paper No. 8, Centre of African Studies, Edinburgh University, Edinburgh,
<http://www.cas.ed.ac.uk/research/pbet.html>.

- King, K. and Palmer, R. (2006b) *Skills Development and Poverty Reduction: the State of the Art, Post-basic Education and Training Working Paper No. 7*, Centre of African Studies, Edinburgh University, Edinburgh, <http://www.cas.ed.ac.uk/research/pbet.html>.
- King, K. and Rose, P. (2005) "Transparency or Tyranny? Achieving International Development Targets in Education and Training," in *International Journal of Educational Development* 25: 362–367.
- Kingdon, G. Sandefur, J. and Teal, F. (2005) *Patterns of Labor Demand, Africa Region Employment Issues – Regional Stocktaking Review*, Centre for the Study of African Economies, Department of Economics, University of Oxford, Oxford.
- Lavy, V. (1996) "School Supply Constraints and Children's Educational Outcomes in Rural Ghana," in *Journal of Development Economics* 51: 291-314.
- Lewin, K. (2004) "Mapping the Missing Link. Planning and Financing Secondary Education Development in Sub Saharan Africa," Second Regional Conference, Secondary Education in Africa, Dakar 6-9th June, 2004.
- Lewin, K. and Caillods, F. (2001) *Financing Secondary Education in Developing Countries; Strategies for Sustainable Growth*, International Institute for Educational Planning, Paris.
- Lockheed, M., Jamison, D. and Lau, L. (1980) "Farmer Education and Farm Efficiency: A Survey," in King, T. (Ed.) *Education and Income*. World Bank Staff Working Paper No.402, World Bank: Washington., D.C.
- Palmer (2006) *Tinker, Tailor, Farmer, Trader: Skills Development, the Enabling Environment and Work in Rural Ghana*, forthcoming, Centre of African Studies, University of Edinburgh: Edinburgh.
- Palmer, R. (2005a) "Skills for Work? From Skills Development to Decent Livelihoods in Ghana's Rural Informal Economy," Paper delivered to the 8th Oxford International Conference on Education and Development, *Learning and Livelihoods*, 13-15 September 2005, New College, Oxford, <http://www.cas.ed.ac.uk/research/pbet.html>
- Palmer, R. (2005b) *Beyond the Basics: Post-basic Education and Training and Poverty Reduction in Ghana, Post-Basic Education and Training Working Paper Series No 4*, Centre of African Studies, University of Edinburgh, <http://www.cas.ed.ac.uk/research/pbet.html>
- Palmer, R. (2004a) *The Informal Economy In Sub-Saharan Africa: Unresolved Issues Of Concept, Character And Measurement*, Occasional Paper No. 98, Centre of African Studies, University of Edinburgh: Edinburgh.
- Palmer, R. (2004b) *For Credit Come Tomorrow: Financing of Rural Micro-enterprise – Evidence from Nkawie-Kuma, Atwima District, Ghana*, Occasional Paper No. 96, Centre of African Studies, University of Edinburgh: Edinburgh.

- Psacharopoulos, G. (1994) "Returns to Investment in Education: A Global Update," in *World Development* 22(9): 1325-1343.
- Psacharopoulos, G. and Patrinos, H. (2002) *Returns to Investment in Education: a Further Update, World Bank Policy Research Working Paper 2881*, World Bank: Washington.
- Teal, F. (2001) *Education, Incomes, Poverty and Inequality in Ghana in the 1990s*, CSAE WPS/2001-21, Centre for the Study of African Economies: Oxford.
- UNESCO (2004) *Education for All: The Quality Imperative, Education for all Global Monitoring Report*, UNESCO: Paris.
- UNESCO (2003) *Gender and Education for All: The Leap to Equality, Education for All Global Monitoring Report*, UNESCO: Paris.
- UNESCO (2002) *Education for All Global Monitoring Report: Is the World on Track?* UNESCO: Paris.
- UNESCO (2000) *The Dakar Framework for Action, Education for All: Meeting our Collective Commitments*, adopted by the World Education Forum, UNESCO: Paris.
- USAID (2005) *Education Strategy, Improving Lives through Learning*, USAID: Washington, D.C.
- Weale, M. (1992) *Education, Externalities, Fertility, and Economic Growth*, Policy Research Working Papers, Education and Employment 1039, World Bank: Washington, D.C.
- World Bank (2004) *Books, Buildings, and Learning Outcomes: An Impact Evaluation of World Bank Support to Basic Education in Ghana*. Operations Evaluation Department, Report No. 28779, World Bank: Washington, D.C.
- World Bank (2002) *Constructing Knowledge Societies: New Challenges for Tertiary Education*, World Bank: Washington, D.C.
- World Bank (1988) *Education in Sub-Saharan Africa, Policies for Adjustment, Revitalization, and Expansion*, World Bank: Washington, D.C.
- World Bank (1980a) *Education Sector Policy Paper*, PUB 26-80, World Bank: Washington, D.C.
- World Bank (1980b) *World Development Report, 1980*, World Bank: Washington, D.C.
- World Conference on Education For All (WCEFA) (1990) *Meeting Basic Learning Needs: A Vision for the 1990s*, Background document, WCEFA: New York