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ABSTRACT

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Public policy has been much more successful at increasing the supply of education than the supply of jobs the educated want in many poor countries. This is particularly true of sub-Saharan Africa (SSA) and South Asia and it is the mismatch between the rapidly increasing supply of more educated labour and the demand for such labour by firms which is the focus for the dissatisfaction with the jobs that are available. An influential policy agenda set out by the ILO argues for a focus on creating 'decent jobs' and that the creation of such jobs can lead to higher growth and lower levels of poverty in poor countries. In this paper it is argued that the 'decent jobs' agenda fails to address the reasons for the job creation pattern we observe. We argue for a policy agenda focused on the sources of low productivity and patterns of skill mismatch which generate low incomes rather than an ILO focus on the type of job being created.

JEL Classification:

J23, J24, J46, O14, O17

Keywords:

education, poverty, labour market policies, 'decent' jobs, productivity, Africa, India

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1. Introduction

That there is a jobs crisis is indisputable. In both the developed and developing world there is a crisis in the sense that very large numbers of individuals do not have access to incomes levels that will enable them to have a decent standard of living. While what constitutes such a decent living standard clearly differs radically across countries there is a striking commonality in the policy discussions across both poor and rich countries. In rich countries the policy debate has shifted from growth to incomes, inequality and jobs, particularly for the young. In poor countries increasingly the policy debate has shifted from a focus on poverty to one on jobs, again with the problems faced by the better educated young prominent in the discussions.

The overarching goal of policy within developing countries remains the reduction of poverty. Indeed one possible reason for the shift in policy attention from poverty reduction to jobs has been the success, at least at a global level, in poverty reduction, Chen and Ravallion (2008, 2010). Such success suggests an important question. When, and how, is success in poverty reduction reflected in better rates of job creation? The global rate of poverty reduction hides large regional differences with the relative success of poverty reduction in China contrasting with the much more modest change in sub-Saharan Africa (SSA) and South Asia. The relative failure in SSA and South Asia poses another question. Why has the fall in poverty there been so modest when growth rates have greatly increased?

It will be argued in this paper that the answer to the questions as to how growth, poverty and job creation link requires an understanding of the process of job creation and destruction, the incomes those jobs create and the growing mismatch between the creation of a more skilled work force and the demand for its labour. This approach to understanding the processes of job creation is in contrast to the one adopted by international agencies such as the ILO which have posed the problem as one of creating better jobs. Their approach, it will be argued, fails to address the sources of the problem and by focusing on job type rather than the processes which drive incomes fails to identify the key policy issues which need to be addressed.

In the next section we set out the ‘decent jobs’ agenda. In section 3 we argue that there is substantial variation of incomes within job types and that it is the income from the economic activity, not the job type, which should be the focus of policy attention. In section 4 we describe the growth in a more skilled workforce and the parallel lack of growth in demand for those skills. Possible sources of the mismatch between skill supply and demand are set out in section 5. A final section argues for a policy agenda focused on incomes and the productivity of both human and physical capital, not job type.

2. The ‘decent jobs’ agenda

In this section the ‘decent’ jobs agenda is set out as advocated by the ILO World of Work Report (2014), the African Economic Outlook (2012) and, in a more muted form, the World Bank Report (2013) on Jobs. While these reports differ in details they share common themes and common policy prescriptions.

The ILO World of Work Report - Developing with Jobs 2014 argues as follows; ‘Taken together, these findings [of how jobs link to family incomes] imply that efforts to expand formal wage employment opportunities and to promote structural transformation, out of lower productivity, subsistence agricultural activities into higher value added employment in the services and industrial sectors is a potentially powerful mechanism for raising living standards and growing the middle class.’ (Box 1.2)

The Report later clearly states that creating more wage jobs will create higher incomes. ‘Improved job quality (as proxied by wage employment) is not only a good indicator of labour market progress but also a determinant of higher per capita incomes.’ (page 47) While less explicit a closely related argument can be found in the World Bank Development Report (2013) on the need for jobs ‘good for development’.

The analysis in these reports is a common one. The African Economic Outlook for 2012 has as its special theme: Promoting youth employment. It identifies the problem in part as “too many bad jobs in poor countries, too few jobs in middle income countries” (page 105) and, in part, that public and private formal sector hiring is insufficient (page 125). The obstacles that young people in African labour markets are identified as an “insufficient demand for their labour (page 133), lack of skills (pages 133 and 134) and that jobs are allocated to those with connections (page 134). The solution is in part that enterprises need to grow and that for small firms a two-pronged strategy is argued to be needed “1) removing barriers to small and microenterprise, enabling them to grow and fill the missing middle and 2) supporting young people to be entrepreneurs and create their own jobs” (page 137). While small enterprise needs to be encouraged it is also the case that governments should undertake efforts to increase formalisation (page 138) and ensure that education and skill mismatches are addressed (pages 141ff).

The ILO (2014) Report outlines the policies that flow from the ‘decent’ jobs agenda. The policy framework proposed is one which focuses on the need for the productive transformation of poor countries and the Report argues that in all cases, productive transformation should go hand in hand with policies to promote decent work.

‘The process of productive transformation, and therefore development, cannot be sustained unless it goes hand in hand with decent work. Unless a sufficient number of good jobs are created, under-employment will remain significant, thereby perpetuating low-productivity traps. There are sometimes significant gaps between economic growth and the extent to which wages and working conditions and the incomes of the self-employed are improved. This tends to be associated with higher labour turnover and social unrest, which may destabilize economic growth’. ILO (2014, page 74)

Policies to promote ‘decent’ jobs include an emphasis on skills (the example of Singapore is cited) and direct measures to improve workplace conditions. ‘Promoting decent work at the firm level means avoiding a race to the bottom in search of competitive outcomes and instead finding practical, financially viable ways of achieving competitive outcomes for enterprises alongside good working conditions for employees and a fair distribution of the gains accruing from improvements in productivity and profitability. Workplace cooperation between management and workers, strong social dialogue, improved management practices for human resources, quality, environment and health and safety play a vital role in successfully implementing high-road strategies.’ ILO (2014, page 76)

The ILO report argues for selective interventions and targeted support and documents what it regards as successful experiences based on careful diversification strategies in the context of gradual trade liberalization consistent with multilateral commitments. Further the report argues for an enabling environment for enterprises including supportive macroeconomic policies. ‘The experiences of several Latin American countries underline the potential of development strategies to foster production diversification in collaboration with the private sector and strengthen the environment for enterprises, while at the same time ensuring that there is sufficient aggregate demand, notably through counter cyclical macroeconomic policies.’ ILO (2014, page 81)

The key components of this agenda can be summarised as consisting of three elements. First a focus of the type of job as being an objective of policy. Second the link from structural transformation, in the form of a contraction of the low productivity agricultural sector and an expansion of a high productive manufacturing sector, as a key element in enabling the economy to produce more decent jobs. Broadly speaking the argument advanced is that manufacturing is associated with better jobs, manufacturing drives growth and the report infers from these two arguments that policies promoting manufacturing will lead to higher growth. Third that investing in skills and increasing investment in education will lead to more decent jobs. The following sections consider each of these elements.

3. Jobs and incomes

3.1 Jobs, formality and informality

The ‘decent’ jobs agenda which was set out above makes a distinction between ‘good’ and ‘bad’ jobs. The underlying argument is that the jobs problem is one of the type of jobs being created. In discussing jobs it is common to find a comparison being made between the formal sector where, by implication, the ‘good’ jobs are located and the informal sector, where ‘bad’ jobs are located. This distinction is central to the argument set out for India by the National Commission for Enterprises in the Unorganized Sector (NCEUS) (2009). It is also central to the ILO report.

The NCEUS makes a distinction between the formal and informal both in terms of sectors and employment. The Commission used the following definition to separate the unorganised sector from the organised sector: “The unorganised sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers”.

The Commission also makes a distinction between organized or formal and unorganised or informal employment as follows: “Unorganised workers consist of those working in the unorganised enterprises or households, excluding regular workers with social security benefits, and the workers in the formal sector without any employment/ social security benefits provided by the employers”

The result of these classification, which is given in Table 1 taken from NCEUS (2009), is to show that informality dominates the economy. Of a labour force of 394 million in 1999-2000 fully 99 per cent are classified as being in the informal sector/employment category. This labour force had increased by 15 per cent by 2005-2005, of which less than 5 per cent were in the formal/organised worker category. However the Table shows that the category of the informal workers in the organised sector increased by 25 per cent, still a very small number and leaving the economy as a whole dominated by informality.

Is the implication of these numbers that the Indian economy has completely failed to create what the ILO would term decent jobs over a period when the growth rate averaged over 6 per cent in the non-agricultural sector (NCEUS 2009, page 10)? The answer to that question is clearly yes. The problem posed by a classification which ensures that some 90 per cent of the workforce is in that category is that it hides the enormous heterogeneity that exists within both formality and informality. It is clear from other numbers presented in NCEUS (2009) that the number of wage jobs that have been created is negligible, indeed in some sectors the numbers have fallen. Thus the informality numbers imply a

massive increase in self-employment and the implication for the ‘decent’ jobs agenda is that these are ‘bad’ jobs.

Table 1 Formality and Informality in India: 1999- 2004

	Informal/ Unorganised Worker	Formal/ Organised Worker	Total
1999-2000			
Informal/Unorganised Sector	393.7 (99.5)	1.8 (0.5)	341.5 (100.0)
Formal/ Organised sector	23.1(42.1)	31.8 (57.9)	54.9 (100.0)
Total	362.8 (91.5)	33.6 (8.5)	396.4 (100.0)
2004-2005			
Informal/ Unorganised Sector	391.8 (99.6)	1.4 (0.4)	393.2 (100.0)
Formal/ Organised Sector	28.9 (46.2)	33.7 (53.8)	62.6 (100.0)
Total	420.7 (92.3)	35.0 (7.7)	455.7 (100.0)

This is Table 2.3: Relationship between Sector and Type of Employment (UPSS) from (NCEUS) (2009).

Note : Figures in brackets are percentages. Source : NSSO 55th and 61st Round Survey on Employment-Unemployment. Computed.

The pattern observed in India is also true in SSA where self-employment dominates the employment picture. Reviews of the evidence of labour market developments in sub-Saharan Africa have pointed to a pattern by which job growth appears to have been most rapid in urban self-employment, not wage employment, Kingdon et al (2006). Much of the data on which these studies were based only cover the period up to 2000. Using more recent data for some countries suggests a change in this pattern where wage jobs in small firms have grown very rapidly. An important example of this pattern is Ghana where employment in small firms, which is the low paying occupation within the urban sector, has increased very rapidly and the proportion of the workforce in self-employment, with no employees, actually fell over the period from 1998 to 2005, Nsowah-Nuamah et al (2012). The implications of this pattern for the ‘decent jobs’ agenda will be taken up in section 5 below.

China data on a similar basis is hard to obtain as the official employment data classifies employment by type of enterprise rather than as wage or self-employment. A study carried out by the ILO, Ghose (2005), is open to the interpretation (his Table A2.3) that the growth of urban employment over the period from 1990 to 2002 has been concentrated in small scale enterprises and what Ghose terms ‘irregular’ employment which may well be mainly self-employment. A study of China’s labour market by Knight and Song (2005) covering a similar period shows that growth in urban employment was dominated by ‘other’ employment which they interpret as ‘new enterprises or old enterprises with new forms of ownership’ (page 32). Rural employment growth was very substantial in the TVE (Town and Village Enterprise) sector a category of employment that does not seem to have a close parallel in other economies. What is clear from the Chinese data is that income rises were rapid for the relatively unskilled albeit with an increase in inequality. Ravallion and Chen (2007, page 7) document the very large increases in rural household incomes which underlay the dramatic progress in poverty reduction in China over the period from 1981 to 2001. As these rural incomes were less than half those of urban such rises had a powerful effect on poverty reduction. These rural income rises show the importance of

focusing on the productivity of enterprises, whether agricultural or non-agricultural, rather than the type of jobs being created if the mechanisms of poverty reduction are to be understood.

3.2 Incomes from wage and self-employment

In the previous section the dominance of non-wage employment in the growth of jobs in SSA and India was documented. Such non-wage employment has been identified with informality and its growth is, within the ‘decent’ jobs agenda, regarded as a problem which needs to be reversed. In this section evidence will be presented to show that an identification of informality with self-employment and ‘bad’ jobs is very misleading. The assumption underlying the ‘decent’ jobs agenda is that self-employment is a last resort. In fact there is evidence that it may well be chosen. There is also evidence that the view, again implicit in the ‘decent’ jobs agenda, that wage jobs are better paying than those in self-employment is not well founded.

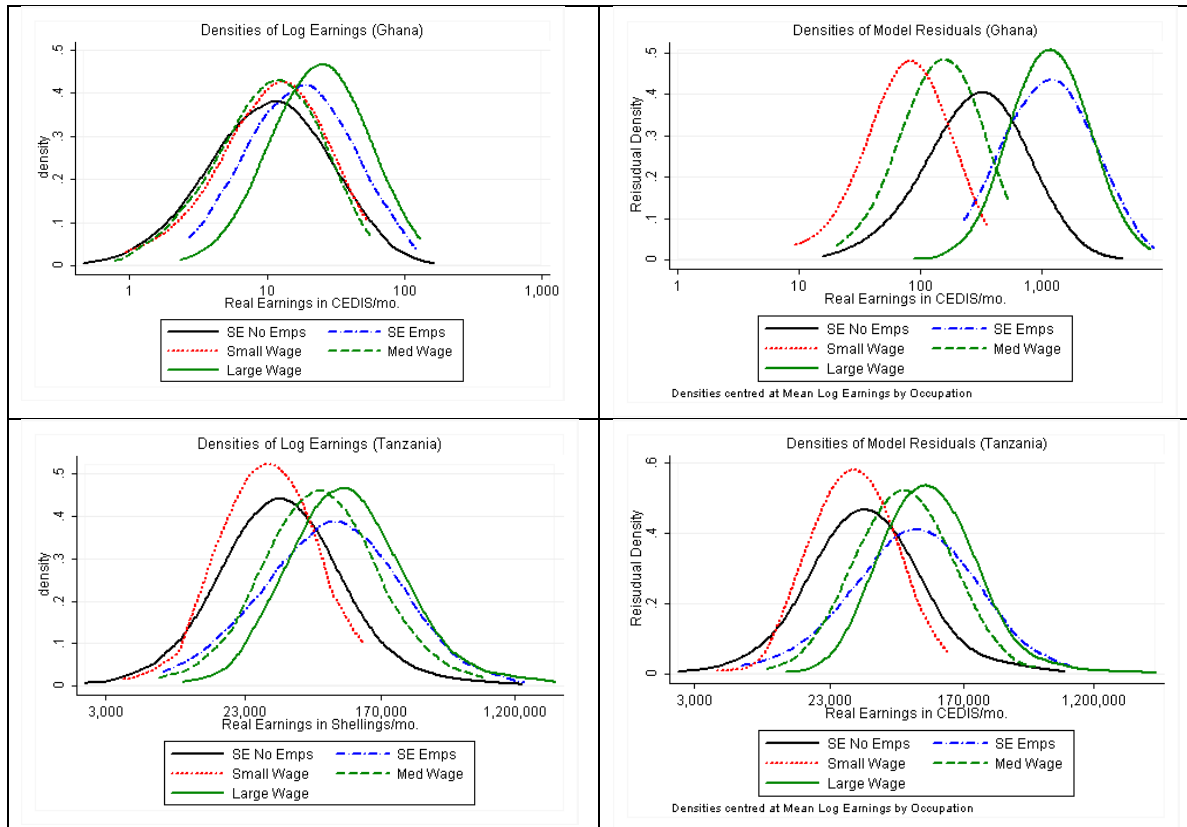
The study of formality and informality in India, (NCEUS (2009, page 24)), cites wages of casual workers as being 40 per cent higher in the formal than the informal sector for men and 46 per cent for women. Such ratios seem to imply that formal wages are generally higher than informal ones. However the categories of formal and informal hide enormous heterogeneity within these sectors and the ratios cited by the Indian Commission are actually quite modest to those observed in other countries. Kerr and Teal (2015) document the extent of wage differences among black workers in South Africa – ‘in 2004 black self-employed workers in KwaZulu-Natal province, South Africa, had average hourly earnings six times lower than black employees in private sector firms, who themselves earned half the average hourly wage of black workers in the public sector’. Such figures appear to confirm that there is a hierarchy of jobs with self-employed and casual workers at the bottom and public sector unionised workers at the top. However the analysis by Kerr and Teal (2015) shows that once differences in human capital are allowed for, and unobserved heterogeneity controlled for by means of fixed effects, the *only* remaining differential in the labour market is due to the public sector premium. There is for that data no evidence for a sectoral effect for wage relative to self-employment or, even more surprising, for a union effect.

In contrast to a view of hierarchy in the labour market is a view of self-employment as an opportunity. A paper by Günther and Launov (2012) focuses on exactly this issue as to whether informal employment in developing countries is an opportunity or a last resort. They use data from the Côte d’Ivoire and argue that the labour market contains both ‘types’ in that for some self-employment is chosen while for other there is evidence they are rationed out of the wage labour market as wages are not set at a market clearing rate. Falco et al (2011) investigate a similar question using urban labour market data for Ghana and Tanzania. They find little, if any, evidence for a causal sectoral effect within urban areas.

A key finding in Falco et al (2011) is the importance of enterprise size in understanding one important observable dimension of heterogeneity in the labour market. Larger firms pay more for reasons that cannot be explained simply by their greater use of human capital. The study also finds an important role for size within self-employed enterprises which may reflect a life-cycle progression by which self-employment becomes more profitably as saving are accumulated which enable larger enterprises to be run by the self-employed. While the size of the enterprises matters so too does the heterogeneity due to factors which are not observed in the data as is shown in Figure 1 (see Falco et al (2011)).

Figure 1 shows the distribution of income within urban Ghana and Tanzania for three sectors of wage

Figure 1: The Distribution of Earnings in Urban Ghana and Tanzania: 2004-06



Note: A small firm is one with 5 or less employees, a medium firm with more than 5 but 20 or less and a large one has more than 20 employees.

employment – small, medium and large firms – and two sectors of self-employment those who are own traders and those who themselves employ workers. The left hand column show the actual distribution of earnings while the right hand column controls for the observable aspects of human capital namely education, work experience and tenure. The figure shows clearly the large firm effect where, as a large firm is one with more than 20 employees, they are not by standards in other countries very large firms.

While it is clear from the figure that in both countries those who work in a large firm, so defined, on average earn more there is a very substantial overlap in the distribution of earnings across the sectors shown in the figure. We see from the right hand column of the figure that, once we control for the observable dimension of skills there is very little difference in the average earnings for those who work in large firms and the self-employed with employees and, for Ghana, those in small and medium sized firm earn on average less than the own traders self-employed. There is, whether or not we control for observable skills, a very substantial overlap in earnings between the wage and self-employed. It is such heterogeneity which cautions against any general view that wage employment generates higher incomes than self-employment.

The dominance of small scale enterprises in the economies of SSA and India is another expression of the findings discussed in the last sub-section that most activity takes place in the informal economy. The ‘decent’ job agenda with its focus on a productive transformation sees the path out of poverty as one where these informal enterprises become formal. The evidence cited shows that there is no presumption that wage income is for all higher than self-employment income. There is strong evidence that enterprise size is a factor in higher earnings. The policy problem is to understand which enterprises

grow and how the demand for labour changes with growth.

4. Skills

4.1 The supply of skills

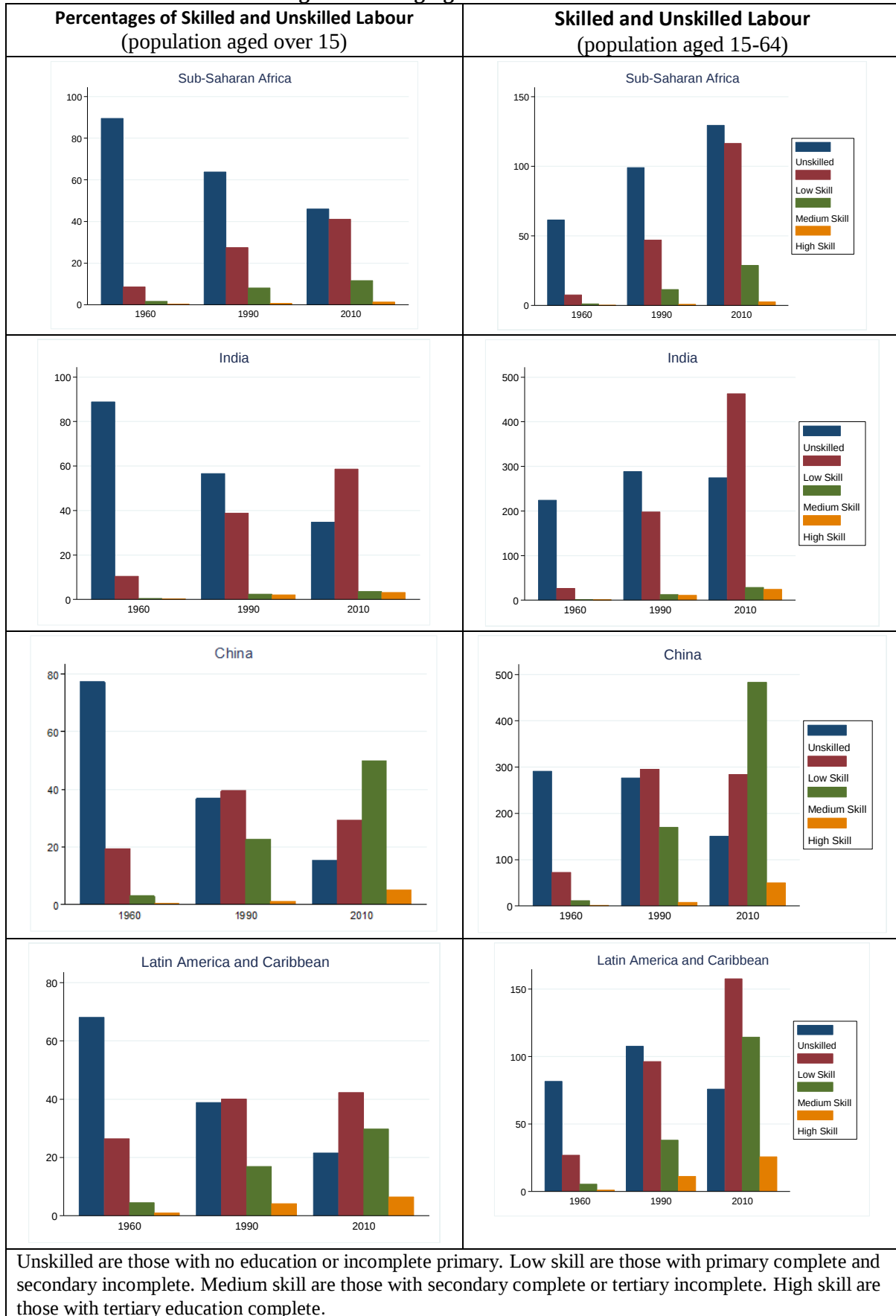
The ‘decent’ jobs agenda regards skills as a precondition for the productive transformation of the economy which will provide the framework for the creation of good jobs. The reports cited uniformly assume that the problem is that there is too low a level of skills in poor countries and that policies to increase skills will provide the basis for ‘decent’ jobs and higher incomes. None cite any evidence for this view. The question addressed in this section is whether the expansion that has occurred in education supply over the last fifty years has led to more jobs with higher incomes. In brief the answer is that, at least in SSA, it has not. The policy relevant question is not should we invest in skills it is why has the investment in skills been such a failure in creating better paid jobs for most of the newly educated.

It is clear that jobs cannot be defined without reference to the skills applied in them. So how has the skill composition of the workforce changed in developing countries since 1960? In Figure 2 data is presented for SSA, India, China and Latin America, which includes the Caribbean countries, from Barro and Lee (2013) for the percentages of skilled and unskilled in the population aged over 15 for 1960, 1990 and 2010. The unskilled are defined as those with less than complete primary education, the low skill are defined as those with primary complete or with secondary incomplete, the medium skilled are those with secondary complete and some tertiary, while the high skill are those with tertiary education completed.

The left hand side of the figure shows percentages of the skill categories and the right hand side converts these percentages into the population, aged from 15 to 64, with the four categories of skills. The figure shows the dramatic transformation of educational qualifications in all of the countries included in the figure. In SSA and India in 1960 over 80 per cent of their population were unskilled in the sense that they had failed to complete primary. By 2010 this had at least halved with India achieving a greater reduction than SSA. However we can see from the figure that even by 2010 for both SSA and India the labour force is dominated by those with low skills or none, over 80 per cent in both cases. A more complete transformation was achieved by China. In 1960 nearly 80 per cent of its population was unskilled, by 2010 this percentage had fallen to below 20 per cent and the category of medium skills, those with secondary complete, had expanded from a negligible percentage to about 50 per cent implying some 500 million people with this level of education. It will be noted that this transformation was far greater than that achieved by the Latin American countries which started in 1960 with much higher levels of education than the other countries in the figure. Higher skills, defined by completing university, were small for all the countries and particularly low in SSA at just over 1 per cent in 2010.

This last category may seem very small but it is of importance for how the skilled labour market is developing in both SSA and India. In SSA by 2010 there were some 2.5 million workers with university education. While clearly tiny as a percentage of the workforce their small numbers understate their importance for several reasons. As is shown in Teal (2011) the tertiary educated are now the fastest growing part of the educated labour force. Further there has been an explosion of demand for education

Figure 2 Changing Skills: 1960 - 2010



at the tertiary level in SSA. One interpretation of this pattern of demand, to which we come below, is that returns to lower levels of education are low and this pattern of returns is driving those with the resources to do so to acquire ever higher levels of education. A third reason why this element of the skilled labour force is important is that it is at the university level that workers have the potential to be able to enter the international market where the returns to the education are many times those available on the national market. A final reason for the possible importance of this relatively small part of the labour force is that it may have the skills complementary with a range of technology which may provide employment in the service sector. This may be of particular importance for the Indian labour market.

4.2 The demand for skills

In this section we consider how valuable has been this massive expansion of education at all levels. In surveys which date back to the 1970s George Psacharopoulos has presented comparative estimates of the returns to education across countries, Psacharopoulos, (1981, 1985, 1994) and Psacharopoulos and Patrinos (2002, 2004). The argument throughout these surveys has been the same and is well summarised by the abstract to Psacharopoulos (1994) ‘the rate of return patterns established in earlier reviews are upheld: namely, that primary education continues to be the number one investment priority in developing countries; the returns decline by the level of schooling and the country’s per capita income’. While Psacharopoulos’ interpretation of the evidence has been contested, Bennell (1996, 1998), it has been very influential and his data underlies the estimates of human capital in both Hall and Jones (1999) and Caselli and Coleman (2006), papers which seek at the macro level to assess the importance of education and total factor productivity (TFP) in determining differences in income across countries. One of Bennell’s objections to the argument advanced by Psacharopoulos is that the data on which his overviews are based is very unreliable. Indeed many of the estimates date from the time before there was either firm or household level surveys to use.

In this section we will consider two countries where good quality data exist and which have experienced very different rates and patterns of growth, Ghana and South Korea. The estimates cited in the most recent survey, Psacharopoulos and Patrinos (2004, Table A2), are both based on labour market data, Jones (2001) and Ryoo et al (1993).

To assess the returns to education in the case of Ghana we have three sources of labour market data. The first is based on household surveys, (see GSS (2000, 2007)), the second is based on workers in manufacturing firms (see (<http://www.csae.ox.ac.uk/datasets/ghana-rped/Ghmain.html>)) and the third is based on a panel labour force survey (<http://www.csae.ox.ac.uk/datasets/Ghana-Tanz-UHPS/default.html>). The first of these sources is used by Glewwe (1996) who draws from the second year of the Ghana Living Standards Survey (GLSS), which covered 3200 households from all regions of Ghana from October, 1988 to August, 1989. The focus of the Glewwe paper is the possibility of bias in the estimates for education due to the failure to account for ability and differences in school quality. However he does report an OLS estimate of the Mincerian return to education of 0.085 (Table 2 page 275) which he argues overstates the causal return to education. Jones (2001) uses the early rounds of the manufacturing labour force survey that was conducted in Ghana from 1992 until 2003. While the Glewwe data is based on a household sample that used by Jones (2001) is based on workers in manufacturing firms. In spite of the different population from which the sample is drawn the point estimate is virtually identical at 0.071 (Table 2 page 71). Both Glewwe and Jones chose a linear specification. The third source is used in Falco et al (2011) where the specification chosen allows for non-linearity and the results imply a clearly convex patterns of Mincerian returns to education.

If non-linearity is present in the returns to education it is of great importance for policy. If the pattern of concavity argued for by Psacharopoulos is correct then the average will understate the returns at the lower levels of education. In contrast, if the returns are convex then the average may greatly overstate the returns at low levels and may indeed be very misleading as an estimate of the effect of education on incomes and output.

The convexity observed for Ghana has been noted in previous work for sub-Saharan Africa. In a survey of studies for SSA since 1978 Appleton et al (1996) show that for all the countries they survey returns increase with the level of education. Convexity also characterises much of the more recent data surveyed by Schultz (2004). Bigsten et al (2000) using the labour force data from firms across a range of African countries, which include Ghana show, that the returns are highly non-linear and convex. Söderbom et al (2006) show convexity in the returns for both Kenya and Tanzania again using labour force data from manufacturing firms. A similar pattern has been found for India, Kingdon and Unni (2001) and Duraisamy (2002).

We can compare the return in Ghana with those for South Korea. There is less data for South Korea but the study by Roo et al (1993), used by Psacharopoulos and Patrinos (2004), provides a time series for the returns to education over the period 1974 to 1988 and implicitly allows an assessment of the shape of the earnings function. Roo et al (1993, Table 1) shows a steady rise in the Mincerian return to education as the level rises, exactly the pattern observed for Ghana, but with very much higher returns. If the years 1986 and 1988 are excluded, as being affected by the financial crisis, returns to both men and women, with middle school or higher have returns between 9 and 20 per cent. It does not seem to be possible to establish if this pattern for the 1980s is still there for the 1990s and beyond. There is a study covering this period, Kwack (et al) (2007), but it adopts a linear specification so cannot throw light on whether the earlier pattern of returns rising with the level has changed.

In a paper comparing the productivity of firms in Ghana and South Korea Baptist and Teal (2015) show that the very large differences in productivity between the two countries can be shown to be closely related to the differences in returns to education in the two countries. Their results are shown in Figure 3. In Figure 3a the differences in value-added per labour hour, conditioned on capital per labour hour, are shown. As the scales are logarithmic the figures implies that productivity in Korean firms, even given their (very large) differences in capital per labour hour, are some thirteen times higher than in Ghana. In Figure 3b the role of education in the two economies is shown where the figure controls for the effects of capital per labour hour. The patterns of return to education for the two countries shown in the figure are radically different. While for Ghana between 5 and 15 years of education there is no increase in output, for South Korea the increase is of the order of from 4 to 5 times. In fact Baptist and Teal (2015) show that the whole of the difference in total factor productivity between the two countries can be accounted for by these different returns to education. Finally in figure 3c the labour market data from the firm surveys is used to show the earnings function for the workers in the firm. Again the strongly convex pattern of returns to education is confirmed.

The pattern of returns shown in Figures 3b and 3c directly contradict the stylised facts argued for in the Psacharopoulos reviews. For the poorer country returns are convex and the returns are much higher in the richer country. It needs to be repeated that this convex return shown for Ghana is consistent with all the empirical work for developing countries and implies that the massive increase in education documented in the previous section above will have had negligible returns for those with junior secondary education or lower, the vast majority of those in SSA and India.

Figure 3a

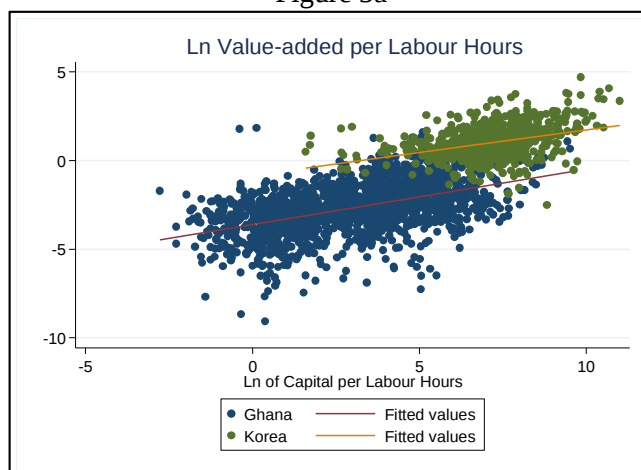


Figure 3b

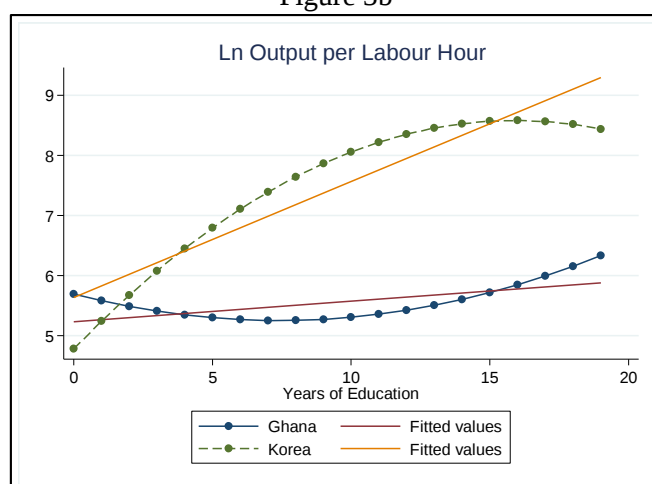
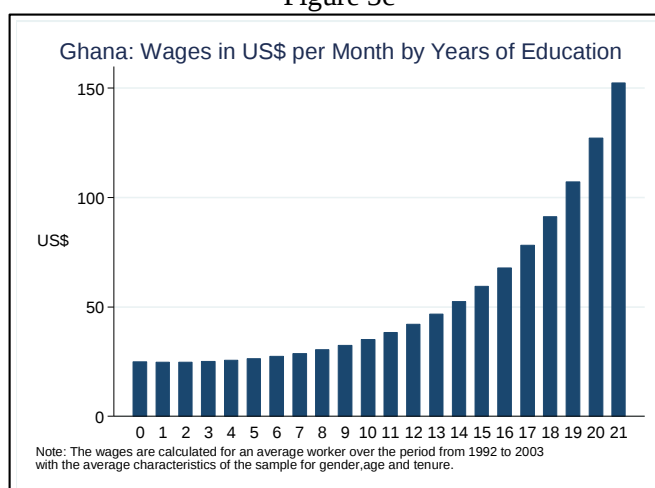


Figure 3c



5. Sources of skills mismatch

The evidence for the returns to education suggests a mismatch between the demand and supply for skills. The premise of the ILO, African Development Bank and World Bank reports is that skills

investment is a prerequisite for the creation of better paid jobs. As the evidence set out in the last section shows that is not at all the same as investment in education leading to increased incomes. The returns to education for those with junior high school or less has been very low in urban Africa and it is in urban areas that the mismatch between the aspirations of the young and their job opportunities is most stark. Addressing this mismatch in aspirations and opportunities requires understanding and addressing the mismatch between the low demand for, and increasing supply of, more educated labour. Labour demand needs to increase for the junior high school educated sufficiently to increase their incomes and possibly in doing so the value of their education. How to change the shape of the earnings function is the policy problem that needs to be addressed if higher income jobs for those with junior school education, or less, are to be available and desired.

In the section above it was documented that incomes differ greatly within job types. However what is needed to understand changing patterns of demand is evidence for how job types and the incomes from them have been changing over time. It is understanding the factors underlying the changing demand for labour that will provide insights into the sources of the mismatch between the growing skills pool and the opportunities open to the newly educated. Such data is scarce for SSA but recent work on Ghana has documented both income changes by skill level and the changing composition of job types within the economy at least over the period up to 2005. Nsowah-Nuamah et al (2012) show that over the period from 1998 to 2005 real median earnings increased by 6 per cent per annum and that the growth rate of income for those working in small firms (those with 10 or fewer employees) was higher at 9 per cent per annum. In the paper it is argued that it was the ability to increase the wages of the relatively unskilled that underlay the decline in poverty over that period. It is important to note that these rises in incomes from jobs was *not* due to education but to increases in the demand for that labour.

Teal (2016) shows how large has been that increase in demand for labour among small firms in Ghana's manufacturing sector. If a definition of firm is used which includes self-employed enterprises with employees then between 1987 and 2003 the number of small firms (less than 10 employees) more than tripled from just over 22,000 to over 74,000 while employment grew from just over 69,000 to nearly 244,000. This massive rise in the number of small firms and employment in them was clearly sufficient to increase real wages in the firms substantially. However even after a period of sustained growth wages in small firms remain low, the median wage being US\$ 65 in 2005. Indeed the gap in median wages between those working in small firms and those in large (100 or more employees) scarcely changed with large firm wages about twice those in small firms. Teal (2016) shows that in contrast to the large rise in employment in small firms employment in large firms (those employing more than 100) fell by some 20 per cent from 74,601 to 58,784. Not only are the number of jobs in such firms very small they are declining.

The focus on jobs rather than incomes ensures that the nature of the policy problem is missed. Wages in small firms can change rapidly as can employment generating higher income in 'bad' jobs. Workers may have access to higher incomes through low skilled jobs within the informal sector if they are shifting from lower to higher paid ones - possibly from rural to urban – even if the kind of wage rises documented in Ghana between 1998 and 2005 do not occur. The evidence we have for Ghana suggests that this process can occur while higher returns to their education are not available as the supply of jobs that pay more for more education fails to grow. It is policies which shift the demand for labour with junior high school or less education that is the key to ensuring that the mismatch between aspirations and opportunities can be mitigated. If jobs which pay more for more education are located in larger firms then the growth in small relative to large firms is part of the (increasing) mismatch between the increased skill pool and the demand for its labour. What might be the possible sources of this mismatch?

The evidence we have cited for the return to self-employment and the evidence for the differing returns across Ghana and South Korea both point to one possible explanation and this is how the increase in educated labour match with increases in physical capital as firms grow in size. The evidence for South Korea is consistent with high returns to education when investment in physical capital proceeds in parallel with a more educated workforce. What the evidence for SSA points to is that simply investing in education will not promote that investment in physical capital. The only country in sub-Saharan Africa which has achieved a shift to a labour intensive industrial sector is Mauritius and the expansion of its garment and textile sector led to a demand for female labour with at most primary level education Teal (1999a). The country which has been most successful to date in increasing the demand for unskilled labour is China and a major source of labour to its urban sector has been rural migrants most of which have junior secondary school or lower levels of education. The source of the problem lies in the failure of firms which grow to adopt a technology making use of the skills now abundant in the economy. If that is a correct interpretation of the evidence it points to a need to understand the processes by which firm invest and grow. Such a process does not simply involve job creation but job destruction and understanding how that process works is critical to understanding how higher paying job may evolve in an economy.

Such processes of job creation and destruction may be one aspect of how both the average productivity and size of enterprise increases. Teal (1999b) and Sandefur (2010) use different data sources for Ghana to investigate the process of employment growth within the manufacturing sector in Ghana. Teal (1999b) uses the panel data to investigate if firm creation and destruction is related to firm size. The finding is that there is as substantial an amount of firm churning, that is growth and death of firms, as has been found in developing countries and that the rate of net firm creation is not related to firm size. That study relied on the results of a panel which is limited in what it can observe as it is not possible, given it is a panel, to allow for firm entry. Sandefur (2010) uses the census data from Ghana which is available for two year, 1987 and 2003, to investigate how the process of firm formation has operated over this period. As only a very limited aspect of a panel could be established between the two censuses how much firm exit there was is hard to measure however Sandefur (2010) argues that the evidence is consistent with a very large number of firms that existed in 1987 going out of business by 2003. His analysis also suggests that small firms do not grow to become large. Indeed large firms tend to start out large.

If the process of job creation and destruction is working then we should observe a pattern by which the more efficient firms grow in size and relative importance in the economy. In fact in Ghana we observe the increasing dominance of small scale enterprise. While this is the low income sector it is also the one which evidence from the household surveys suggest saw rapid rises in incomes over the period from 1998 to 2005. The policy problem is to understand why processes of firm formation for the small work so well and processes of firm growth for the relatively large work so badly. It is such patterns as this which can offer some part of the explanation for the growing mismatch between skill supply and demand.

6. Policies for incomes not jobs

The jobs agenda of the international organisation focuses on job type variously defining the objective as creating ‘decent’ or ‘better’ jobs or ‘jobs good for development’. The ILO Report is explicit that these jobs will be located in a high productivity manufacturing sector that needs to be promoted by various selective interventions. It devotes substantial space to describing these ‘decent’ jobs as

characterised by security of tenure and benefits that are clearly a description of certain wage jobs in high income countries. The informal sector is viewed as a low income, low productivity, sector that needs to be contracted as a successful program of structural transformation moves the economy to a higher income and lower poverty level.

In this paper it has been argued that such a focus on 'job type' misses the extent of heterogeneity within sectors. Some self-employment jobs, traditionally viewed as part of the informal sector, pay more than many wage jobs. Indeed in an economy characterised by low income levels for all employment opportunities, self-employment, which captures the returns to physical capital, may well be a preferred outcome to a wage contract. A focus on sectors such as manufacturing as being a high productivity one miss the quite extraordinarily large differences in productivity within manufacturing.

The policy problem is not a failure to create certain types of jobs, or to promote certain sectors, it is the failure to match a rising demand for newly educated labour with its increased supply. This mismatch is reflected in the low returns to skills for the junior secondary educated and below. Quite contrary to what is uniformly argued in the reports of international organisations there is no evidence that the high rates of investment in education have had a high pay off for the newly educated – except for the tiny minority at the top of the educational pyramid. The patterns of returns to education, by which they are highest at higher levels, is the basis for the dramatic rise in the demand for post-secondary education. Only the very few may benefit but all can, and do, seek to compete.

Once policy shifts from a focus on job type to incomes and the low returns to lower levels of education then the policy agenda too shifts. As almost all new entrants to the labour market have some education the policy issue is to shift up the demand for those with lower levels of education. It is not important what job type is created, it is important that the incomes from those jobs rise. Evidence has been cited from Ghana where this was achieved over the period from 1998 to 2005. Evidence is scarce as to whether this is an exceptional outcome. The general dissatisfaction with rates of 'job' creation suggest it may well be.

How was it done in Ghana? The rise in incomes from jobs for the unskilled occurred over a period when the number of those jobs expanded massively - a more than threefold rise over the period from 1987 to 2003. This is, at least, suggestive that the key was a greatly increased demand for this unskilled labour driven by rising labour demand within the small scale sector. A focus on job type would see this as indicative of policy failure. A focus on incomes shows that such an expansion can be indicative of success. Clearly if it was the case that this expansion was associated with falling incomes it would be indicative of policy failure. The Ghana evidence also points to limitations in the success. Higher productivity jobs in the large firm sector (those employing more than 100) did not expand. This clearly was a policy failure. The point is that without a knowledge of incomes a focus on job types is uninformative.

In summary the 'decent jobs' agenda set out in the ILO Report (2014) provides no evidence as to why the pattern of job creation is what we observe and why it might differ across different types of economies or ones at different income levels, provides no analysis of how job choices are made, provides no information, however basic, on the incomes available from different types of jobs and provides no analysis as to how large are the returns to education of different levels. The implication is that the Report provides no evidence to support any of its policy prescriptions.

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