Demand and Supply of Technical and Vocational Skills in Ghana

Volume 1. Performance and Recommendations for the Technical and Vocational Education and Training System

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Currency Equivalents
As of January 2012
1 USD = 1.58 GH₵

As of mid-2011
1 USD = 1.50 GH₵

As of mid-2008
1 USD = 1 GH₵

Acronyms

AGI  Association of Ghana Industries
BEC  Basic Education Certificate Examination
BPO  Business Process Outsourcing
CBT  Competency Based Training
COTVET  Council for TVET
CSSPS  Computerized Schools Selection and Placement System
EFA  Education For All
EMIS  Education Management Information System
ESP  Education Strategic Plan
GCI  Ghana Construction Industry
GEA  Ghana Employers Association
GES  Ghana Education Service, MOE
GETFund  Ghana Education Trust Fund
GISDC  Ghana Industrial Skills Development Center
GoG  Government of Ghana
GRATIS  Ghana Regional Appropriate Technology Industrial Service
GSDI  Ghana Skills Development Initiative
GYEEDA  Ghana Youth Employment and Entrepreneurial Agency (formerly NYEP)
ICCES  Integrated Community Centre for Employable Skills, MoESW
IGF  Internally generated funds
ITES  Information Technology-Enabled Services
ITAC  Industrial and Training Advisory Committee of COTVET
JHS  Junior High School
JSS  Junior Secondary School, now called JHS
LESDEP  Local Enterprise and Skills Development Program
MFI  Micro-finance institution
MoE  Ministry of Education
MoESW  Ministry of Employment and Social Welfare
MoLGRD  Ministry of Local Government and Rural Development
MoTI  Ministry of Trade and Industry
MoYS  Ministry of Youth and Sports
MSE  Micro- and Small-Enterprise
NAC  National Apprenticeship Committee of COTVET
NACVET  National Coordinating Committee for Technical and Vocational Education and Training
NAP  National Apprenticeship Program
NBSSI  National Board for Small Scale Industries
NDPC  National Development Planning Commission
NER  New Education Reform
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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>NTVETQC</td>
<td>National TVET Qualifications Committee of COTVET</td>
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<td>NQF</td>
<td>National Qualifications Framework</td>
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<td>NVTI</td>
<td>National Vocational Training Institute</td>
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<td>NYA</td>
<td>National Youth Authority</td>
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<td>NYEP</td>
<td>National Youth Employment Program, now the GYEEDA (since 2012)</td>
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<tr>
<td>O&amp;G</td>
<td>Oil and Gas</td>
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<td>OICG</td>
<td>Opportunities Industrialization Centre – Ghana</td>
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<td>OJT</td>
<td>On the Job Training</td>
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<td>PPP</td>
<td>Public-Private Partnership</td>
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<td>PTA</td>
<td>Parent-Teacher Association</td>
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<td>RECOUP</td>
<td>Research Consortium on Educational Outcomes and Poverty</td>
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<td>REP</td>
<td>Rural Enterprise Project</td>
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<td>SDF</td>
<td>Skills Development Fund</td>
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<td>SHS</td>
<td>Senior High School</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>STEP</td>
<td>Skills Training and Employment Placement Program</td>
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<td>TQAC</td>
<td>Training Quality Assurance Committee of COTVET</td>
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<td>TTI</td>
<td>Technical Training Institute</td>
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<td>TVED</td>
<td>Technical and Vocational Education Division of GES</td>
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<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
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<td>VSP</td>
<td>Vocational Skills and Informal Sector Support Project</td>
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<td>VTI</td>
<td>Vocational Training Institute</td>
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**Websites**

COTVET: www.cotvet.org  
Skills Development Fund: www.sdfghana.org
EXECUTIVE SUMMARY

COUNTRY AND SECTOR CONTEXT

Ghana has a youthful population of 24 million, and has shown impressive gains in economic growth and in poverty reduction over the last two decades. The recent discovery of oil promises to increase government revenues by about $1bn a year. However, as with most African countries, both growth and poverty reduction are building on weak foundations. Ghana will require several more decades of sustained efforts and solid growth for most of its citizens to sustainably break out of poverty (despite reductions in poverty nationwide, about 30% of the population still live in poverty).

The sustained growth needed requires three critical steps: (i) to increase productivity in the strategic economic sectors; (ii) to diversify the economy; and (iii) to expand employment. Adequate levels and ranges of skills contribute to these core drivers of sustained growth.

Skills development in Ghana includes basic academic skills, life-skills and technical and vocational skills acquired through an education, training, and higher education system, on the job through training and by learning by doing, through work experience itself, and through family and community.

This report focuses on one segment of Ghana’s skills development system: technical and vocational education and training (TVET). TVET in Ghana is often associated with the outcomes of formal public TVET, despite the fact that the sector accounts for less than 10% of the technical and vocational skills acquired. Some of Ghana’s TVET system is part of the education system, some of it is not but is formalized through laws and regulations and is overseen by Government agencies other than by the Ministry of Education. Some is privately provided and the majority of young Ghanaians acquire technical and vocational skills on the job through informal apprenticeships. Altogether, TVET, while its scale and scope is difficult to pinpoint, represents a major intersection between education, youth and the labor market.

Ghana’s technical and vocational skills development system experiences an adverse cycle of high costs, inadequate quality of supply and low demand, leading to further declines in financing, supply and demand. This adverse cycle means that the skills promise is at risk of remaining unfulfilled; the long-held government and political promise to the population has always been that increasing technical and vocational skills training opportunities will help solve youth unemployment.

MARKET AND NON-MARKET IMPERFECTIONS

Various market imperfections have adverse effect on the willingness of employers and employees to invest in technical and vocational skills. Arguably, these imperfections are more spelled out in developing countries, even though we lack conclusive evidence on this. Labor market segmentation between formal and informal sectors inhibits the mobility in the labor market, and suppresses enterprises’ and individuals’ demand for training. Returns to training in the informal sector are relatively low and if moving up in employment is difficult, there will be some reluctance by the employees to invest in their own skills. Further, difficulties to improve productivity, the risk of poaching externalities and the complementarity between labor and capital limit, if not block, employers’ incentives to make similar investment. With the low returns and uncertainties on the one hand and high risks on the other, the market does not provide the necessary information about the scale and scope of needed skills. When, for instance, employers in Ghana are asked what are the key obstacles of being competitive, skills did not feature among the most important priorities. Yet,
when they are asked about the adequacy of skills of their employees, they usually indicate that more and better are needed.

The overwhelming majority of Ghanaian firms, regardless of their size, surveyed as part of the 2007 World Bank Enterprise Survey, did not perceive the skill level of the workforce as a major constraint. Further, according to the Association of Ghana Industries Business Barometer, none of the top 10 challenges cited by Ghanaian businesses include mention of education or skill constraints. This is likely a result of the low-skills equilibrium that the economy and its private sector – from micro- and small-enterprises (MSEs) to larger companies - finds itself in. Ghanaian enterprises appear to have adapted to the low skills level in the country by adopting low level technologies which in turn means that there are relatively few high skill job opportunities. Poaching externalities mean that there is a lack of incentive for enterprises to invest in training for their employees when they fear that these employees might be poached by another firm. This helps keep skill levels low.

Market imperfections normally call for government intervention. These may include increasing subsidies, public investment into scale-up, regulations, or government managed curriculum reform. However, non-market failures and ineffective government policies can respond to market failures negatively, or in ways that actually make things worse by further distorting the market and weighing down the impact of skills on growth and competitiveness. Governments in many developing countries have, over the years, helped to create and maintain supply-driven training systems, within which uncompetitive providers operate, and, crucially, are not incentivized to behave any other way. Most governments also act as providers of skills through public institutions often without adequate mechanisms of coordinating between demand and supply. The mechanisms often used may be an attempt to project future manpower need of industries, “importing” forecasts from elsewhere or avoiding plans altogether and financing public services incrementally. Such incremental financing often perpetuates or even scales up existing training with the expectation that somehow employers learn to appreciate the benefit of skills and that leads to improved employment or productivity. Thus, policies usually create and perpetuate a supply-driven, low quality skills provision, and public subsidies for TVET are often used inefficiently. Public sector regulations rarely provide the necessary flexibility needed by providers to quickly react to changes in market demand.

DRIVERS AND CONSTRAINTS OF TVET REFORM

Coordination of providers, qualifications, strategies, policies, information, legislation, and development partner support remain a key concern. When set up, TVET coordinating councils are often not given sufficient power, resources and autonomy from any one ministry. Government failures in coordination, and in collecting (and disseminating) the needed supply and demand information, can result in supply-demand mismatches which lead to skill shortages, gaps and surpluses. Enabling environment policies to promote skill utilization (and demand) are often lacking.

With these market and non-market imperfections, developing countries with low overall skill levels can get stuck in a low-skills equilibrium. This means that the private enterprises – formal and informal – and the quality of the products and services that they produce, become adjusted to, and then ‘stuck’ at a low-skill level. Whereas more data and more analysis is needed to measure the market and non-market imperfections at micro-level, we are able to make more in-depth assessment of the demand and supply of skills for the country. The argument is that if we find evidence of constraints on the demand and supply side, those constraints help understand the low-skills equilibrium that weigh down individual firms, affect the choices of individual employees and influence the performance of training providers. In turn, a better understanding of demand and supply can provide directions for improved policies, incentives and an improved role for the government coordinating skills development.
SOCIAL AND ECONOMIC DEMAND

Despite the rapid increases in primary and basic education in the last decade or more, the overall skill level of Ghana’s labor force remains relatively low. 62% of the total employed population either dropped out of primary or lower secondary school, or have no formal schooling; and, only 9% of the total employed population has education to the senior secondary level and higher. In the last decade, Ghana’s Free, Compulsory and Universal Basic Education (FCUBE) program and subsequent long-term education strategic plans led to some of the largest cohorts of primary school leavers ever witnessed. Total enrolment in primary and junior high school (JHS) has increased by over 50%. This has increased demand for post-basic education and training opportunities. Of those that complete the 3 years of JHS, half (over 200,000 students) do not make it to further formal education and training. About eight out of every ten youth 15-17 years of age are not enrolled in SHS, and only 5-7% of JHS graduates can expect to find a place in either public or private TVET institutes.

While education attainment has significantly increased in terms of access to and completion of basic education (though Ghana still has over 1 million children aged 6-16 out of school), the quality of learning has not followed suit. In fact, between 2/3rd and 3/4th of the students leave basic school without sufficient literacy and numerical skills whether or not they complete JHS schools. Learning assessments and the basic education completion exam show that the distribution of those without sufficient academic skills is unequal; those coming from poorer families, rural areas, or deprived districts also have lower learning results and insufficient skills to progress academically. Very few of these youth have opportunities to improve their weak basic skills through second chance programs as they are forced to engage in unskilled, often unpaid jobs around the household, in agriculture or through street peddling. Some of these youth get into informal apprenticeship. However, informal apprenticeship, as the report will show later, does not provide basic literacy, numeracy skills. Consequently, while basic education has significantly expanded over the last decade, it created a wedge between those who are stuck at unskilled assignments and those who have some level of success transitioning from school to work. Social cohesion and also competitiveness in Ghana is weakened by the fact that the majority of youth has such low basic skills and are thus stuck at jobs with low productivity and limited upward mobility.

TVET remains less popular than general education, which is regarded by many as a better preparation for the available formal employment opportunities. Choosing technical/vocational training upon the completion of basic education is the result mostly of mediocre academic performance at basic education rather than the result of being attracted to a vocation. Social demand for TVET is undoubtedly influenced by its relatively low prestige, which, in turn, is related to economic issues; its perceived and actual relevance on the labor market, the low graduate pay, lack of jobs in the formal economy and limited growth potential in the informal MSE sector. Indeed, between 2002/03 and 2009/10 enrollment in senior secondary schools increased from 301,120 to 537,332 students, clearly underlining the social demand for general education. In the meantime, enrollment in virtually all public TVET institutes has been either static or in declined over the last few years.

Despite of over 20 years of robust economic growth, Ghana’s labor market reflects little improvements. The bulk of all employment opportunities continue to be in the large informal economy. The structure of the economy continues to be dominated by MSEs which typically have low productivity. In fact, this structure has worsened over the last decade as few of the small and medium enterprises managed to grow in size and the larger ones appear to be able to substitute investment to labor with investment to capital. Among the sectors, agriculture remains dominant, whereas the role of services continues to grow, but both have low productivity. The sectors
producing the bulk of the revenues for the country are mining, natural resources and other commodities, whereas manufacturing, the sector that tends to require skilled labor at higher scale, continues to lag behind.

**Sustained and shared growth in Ghana requires diversification and improvements in productivity.**
The present economic and labor market structure sustains some long-term risks for the country. Over-reliance on resources like oil and gas can lead to further pressures on manufacturing and other tradable sectors and pressures on long-term sustained growth. Growth in Ghana is boosted by favorable trends in global commodity prices, but there are no guarantees that these trends continue or remain stable. These sectors are also typically not labor intensive and skilled labor can often be substituted with investment in capital and technology. Youth unemployment and underemployment remain key social and political challenges. However, the assumption by politicians and policymakers that the provision of skills to youth will ease new school leavers’ unemployment and underemployment remains an unfulfilled promise without addressing the persistent challenges in the labor market and in private sector development.

**The Government is pursuing the strategic development of its economy through diversification and private sector growth.** These efforts need to account for the dominance of the micro-enterprises, the persistence of low productivity and with the market failures. Assessments of the competitiveness of the economy demonstrate that improvements are needed in the regulatory framework, infrastructure, and access to credit, land and technology. In order to effectively address these challenges requires the selection of priority sectors.

**Assessments completed in 2010 for priority economic sectors suggests that they cannot grow to full potential without expansion of the skills pool.** As part of the analytical program for this report, the demand and supply for skills was carried out in some selected priority sectors. Earnings and livelihood in various agricultural sectors can be significantly improved through value chain approaches that require improved skills and technology ranging from farming and animal husbandry to post harvest activities, conservation, packaging, marketing and transportation. The review of the ICT sector demonstrated that there is a pool of prospective IT firms whose growth is curtailed by the shortage of trained personnel and the firms are reluctant to engage in this training for fear that the skills would be poached by the larger telecom and banking sector. Ghana’s potential expansion of the residential real estate market, could potentially employ over 1 million additional skilled workers in construction-related skills. The quality of services in hospitality/tourism has been persistently low due to the low skills of the sector’s employees. In the oil and gas sector, currently Ghana is primarily operating in the upstream part of the industry value-chain (exploration, drilling, production); and many of the jobs created require higher levels or specialized skills which Ghana cannot meet the demand for. Direct job creation is limited; Ghana is looking at creating only 10,000 oil and gas-related jobs in the next five years.

**TVET SUPPLY, COORDINATION AND FINANCING**

The Ghanaian government acts as a large provider of skills in the country, and there are approximately 200 public TVET institutes, including: 36 technical training institutes (TTI) under the Ministry of Education (MoE), 116 vocational institutes under the Ministry of Employment and Social Welfare (MoESW) (NVTIs, ICCESs, Social Welfare Centers and Opportunities Industrialization Centres) and the remainder under different ministries. Public institutional TVET providers can be found in all 10 regions of the country. Most tend to be located in urban areas, with the exception of the publicly funded Integrated Community Centers for Employable Skills and the Youth Leadership and Skills Training Centers which are predominantly rural.
TVET in Ghana is delivered by a large number of entities, including eight ministries, private for-profit and nonprofit institutes, NGOs and through informal apprenticeships. Earlier governments have attempted – and ultimately failed - to coordinate Ghana’s TVET sector; first through the establishment of the National Vocational Training Institute (NVTI) in the 1970s, initially mandated to coordinate all aspects of vocational training nationwide, and second, following the NVTI’s failure, through the National Coordinating Committee for Technical and Vocational Education and Training (NACVET) in the 1990s. NACVET also failed.

In 2006, the Council for TVET (or COTVET) was established under the MOE. COTVET has made some progress towards better coordination of the supply side of TVET. On the demand side, there is a need to better engage with the private sector, and to collect more demand-side data, including at both the national and institutional level. Further, insufficient coordination with government plans led to the development of parallel agendas, plans, programs and committees. A recent example is the Local Enterprise and Skills Development Program (LESDEP), which has been granted a budget of GHC96m for 2011/12 (about US$50m); this is more than the entire (recently established) skills development fund (SDF) budget ($45m).

Total public enrolment is about 40,000 students, with the MoE’s technical training institutes accounting for over 70% of this total. All the data from the public TVET providers themselves clearly shows that enrolment levels over the last several years are either stagnant, or in slight decline. For example, over the period 2001/02 to 2009/10, TTI enrolment has remained largely stagnant at around 20,000 students; NVTI enrollment dropped by close to 10 percent over two years, from 7,297 to 6,710; ICCES enrolment dropped by almost 40% (2008-2011); and, over the period 2001/02 to 2011/12, enrolment in the Community Development Vocational/Technical Institutes has been more or less stagnant, with a slight decline in the most recent year.

The largest provider of skills training remains the informal apprenticeship system which trains in excess of 440,000 youth at any one time; there are about 4 informal apprentices for every trainee in formal public and private training centers combined. There have been several attempts to support informal apprenticeship training in Ghana, but no intervention has yet had any systemic and sustainable impact. The latest government attempt to improve informal apprenticeship is via the National Apprenticeship Program (NAP), which is a relatively small-scale program serving about 1% of the 440,000 youth in informal apprenticeship.

The labor market relevance of formal institution- and school-based TVET has been generally poor. Curricula tend to be excessively theoretical; instructors with marketable and up-to-date skills are difficult to attract and retain, and they are not encouraged to acquire the required practical experience through industrial attachments. Courses are typically three years in duration and certification does not rely on competency-based assessment. Other market links such as industry liaison officers, training for the informal sector, short courses, and post-training support are almost absent. Institutes lack the autonomy needed to respond to market changes.

Ghana’s formal TVET system tends to exclude the poor. The share of individuals having followed a TVET course rises with families’ level of wealth. Opportunity and direct costs of training, combined with lack of (merit-based) scholarships and untargeted public spending on TVET that is captured by those who are less in need, widens inequalities. As a result, the share of individuals from the highest income quintile having technical or vocational training is seven times that of those from the poorest quintile. Educational entry requirements set by most formal TVET providers, public and private, are generally not met by many of the poorer pupils. The majority of those entering informal apprenticeships are also JHS leavers – but those with lower aggregate grades, or those from poorer backgrounds.
There is a diverse array of financing modalities disconnected from one another and demonstrating a variety of incentives or the lack thereof. On the top of the hierarchy of vocational training at secondary level are the technical training institutes which are basically financed based on inputs not unlike general secondary schools. Allocations are largely based on historical allocations and student enrolments. Unit costs are routinely calculated by the MOE, but these are of limited use as they do not take internally generated funds into account (e.g. training fees, parent-teacher association fees or the proceeds of other income generating activities), or recurrent costs associated with the depreciation of the equipment. This results in salaries and teaching hours outweighing practice and material/equipment costs. The financing of other public VTIs represent a mixture; salaries, administration and services being subsidized by the government and other costs are covered by fees. For private VTIs, the main source of income are the school fees collected from students. At the opposite end of the scale is apprenticeship, the financing of which is unregulated and costs are borne by apprentices and their families with no input from the government or communities. In between various types of formal and informal training programs financed through externally initiated, often temporary programs and projects or internally based on user fees and other revenues.

Consequently, TVET financing represents at the same time inefficiencies, high unit costs, especially when unit costs are calculated based on the costs of certification or even employment and under-financing in terms of quality inputs, or incentives for improved performance. As a result, there is a wide range of perception about the costs of training from providers, especially public providers whose perception is that TVET is acutely underfinanced by employers (especially MSEs) for whom the true cost of training is often prohibitively high and bears the risk of pouching externalities. In between are students and employees who either feel excluded from publicly subsidized formal training or could be reluctant to invest in their own training especially in view of the opportunity costs.

The public financing approach and (lack of) incentives used to support TVET in Ghana help to create and perpetuate a supply-driven, low quality skills system. Public financing incentives are lacking for training providers to deliver better services, for employees to improve their skills and employability, and for employers to train more. Where public funding has been used to support private informal apprenticeships it often does so in a way that risks substituting for private financing, and where it has been used to support short duration skills training, it is often done so in an inefficient way.

POLICY RECOMMENDATIONS

A national skills development strategy is in preparation under the auspices of COTVET. This strategy needs to be: (i) responsive to the challenges stemming from social demand (equity, employment); (ii) relevant for the private sector and labor market demand; (iii) informed by market and non-market failures; (iv) adequate for the national economic development priorities (diversification, shared sustainable growth); and, (v) effective in terms of incentivizing the training providers to align with these expectations. The national skills strategy needs to complement, and be complemented by reforms that are underway in related sectors (e.g. private sector development and employment, the informal economy, ICT and agriculture).

In parallel with the strategic agenda, adequate capacities need to be built for coordination implementation and monitoring, and to develop policies to stimulate both demand and supply. A key capacity is COTVET’s ability to coordinate across sectors, government agencies and various types

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1 The report does not cover polytechnics which are tertiary level training institutions.
of providers, including: (i) standards for training services and qualification framework; (ii) monitoring and information systems; and, (iii) development partner and NGO support.

Under COTVET’s guidance, training providers need to go through a needs-assessment and rationalization process and then be provided with adequate support and incentives to be able to make the change to a demand-driven approach. Such a rationalization process should result in the institutions being more specialized in less trade areas, rather than offering a wide range of courses that may or may not be in demand. TVET institutes need sufficient autonomy and incentives to (re)connect with industry requirements. Decentralization should play a key role in bringing training supply closer to market needs.

The government and COTVET would do well do revisit the design of the very well intentioned National Apprenticeship Program – currently, it appears to have been built more on good intentions and less on evidence-based experience of past programs. It contains several elements (e.g. the one year duration, the government taking over fee payment and the offering of stipends to apprentices) that have either not worked in the past, have been shown to reduce the quality of ‘graduates’, or have proven to be unsustainable. Efforts should be directed towards providing literacy and second-chance education opportunities to masters and apprentices, offering technical and pedagogical training and improved access to technology for masters, and improving quality through certification and workplace monitoring.

A more rigorous social profile of the youth is required to enable the development and delivery of different types of training (and complementary) interventions. Better targeting is required. A well-targeted program, designed well can really contribute to public goods. A targeted scholarship scheme could promote access to TVET, especially for the poor, and for women to enter trades that are not traditionally female. Improving access to and completion of a quality JHS education will help to make access to post-JHS TVET programs more equitable. Policies and initiatives related to reducing direct and opportunity costs of training will also help.

The government role needs to change, freeing itself from being directly involved in training provision and more involved in promoting coordination, and providing incentives, standards, accreditation, quality assurance and information. Any Government intervention should be cognizant of current market offerings, and of the risks of creating undesirable market distortions. Addressing effectively the market failure should exclude the government from being a market participant. If for instance, the government builds a functioning qualification system as the cornerstone of quality assurance, it cannot also provide training for the quality of which it carries a judgment.

The national qualification system under construction needs to focus on training and skills that are effective in terms of improving the chances of youth to find employment, improve individual earnings, enterprise growth and productivity. Further, the qualification framework needs to be developed in synch with the competency based training system that is being gradually introduced in Ghana. This system focuses less on the inputs, courses attained and years passed and more on the skills and competencies acquired. Also, a key cornerstone of the national qualifications framework is the recognition of prior learning which effectively integrates apprenticeship and other informal and non-formal types of training into one qualification framework.

TVET financing needs to be sector neutral, results and performance focused, cognizant of the possibly distorting impact on market but also of market failures. Financing and incentive systems should be used to promote demand-driven training, to reward quality and productivity, promote equality and that break out of a low-skills equilibrium. Incentives could help to improve the
performance of trainee and instructor industry attachments, and for industry associations to provide places.

One of the more innovative elements of the ongoing reform has been the establishment of sustainable financing for the skills development fund (SDF). Channeling the majority of TVET resources through a SDF would make it easier for funds to be allocated in line with general national socioeconomic priorities, and specific priorities identified by COTVET. The allocation mechanism could encourage a demand-driven approach, linked to effective training delivery focusing on market skills requirements. In the meantime, making it mandatory for employers to contribute could put excessive burden especially on the MSEs and could contribute to these MSEs to remain small and informal.

TVET information systems, covering the monitoring and evaluation of TVET supply, demand and financing need to be significantly improved. Data collection instruments should be better developed so that they capture more information than just inputs (such as the number of students); they must be extended to collect data on outputs (such as the share that graduates) and outcomes (such as the proportion of graduates that find work). Key stakeholders’ capacities require strengthening, including at the institutional and district levels and within informal trade associations. The Ministry of Employment and Social Welfare (MESW), which delivers most public non-MoE training, must strengthen its ability to formulate TVET policy and deliver services.
Chapter 1: Context, Drivers, and Challenges of Technical and Vocational Skills Development Reform

1.1. Introduction

Ghana’s Socio-Economic and Labor Market Context

Ghana has a youthful population of some 24 million (2010) (GSS, 2010), and has shown impressive gains in economic growth and in poverty reduction over the last two decades. The country has experienced some two decades of sustained economic growth (in the range of 4-5%)
 and in 2011 was one of only seven countries in the world, and the only country in Sub-Saharan Africa (SSA), to have double digit growth (14.4%) (IMF, 2012a, b); with the recent discovery of oil accounting for about half of the 2011 growth. In 2011, Ghana was re-classified as a (lower) middle income country with a GNI per capita (Atlas method) of US$1,230 in 2010. Economic growth is expected to be 8.2% in 2012, quite above the projected average for SSA (5%) (IMF, 2012b). Poverty rates had dropped significantly since the early 1990s; absolute poverty has been reduced from its 1990 level by more than 43% by 2005/06 (GSS, Ghana Living Standards Survey 2005/06). Even still, about 30% of the population (over 7 million people) still live in poverty (below US$1.25 PPP) (UNDP, 2011).

As with most African countries, both growth and poverty reduction are building on weak foundations. Ghana will require several more decades of sustained efforts and solid growth for most of its citizens to sustainably break out of poverty.

Economic growth has been mostly based on high revenues from the extractive and agricultural sectors thanks to sound macroeconomic policies and favorable global commodity prices. If managed well, recently found oil and gas reserves will constitute another source of significant growth and revenue. Ghana has also been using its resources well, investing in human capital through education, health and infrastructure, stimulating the expansion of domestic markets and consumption. However, the sustained growth needed to reach long-term growth now requires three critical steps: (i) to increase productivity in the strategic economic sectors, to make sure that future growth in these sectors is sustained and that the country can build solidly on its comparative advantages; (ii) to diversify the Ghanaian economy and protect it from future price fluctuations in key revenue sectors; and (iii) to expand employment so that growth is truly and sustainably shared among all citizens.

The key strategic documents driving economic growth and social development (GoG, 2003a, 2005; NDPC, 2008, 2010a, b) uniformly identify human capital development as a cornerstone of the country’s development. Within the general objective of human capital development, education has played a key role almost since independence. Although there have been variations in education policy directions and financing, the sustained commitment to the sector has brought about impressive results and contributed strongly to growth and poverty reduction.

At the end of the last decade, a new social consensus emerged in Ghana proposing that long-term national strategic needs go beyond education attainment and focus increasingly on other aspects of

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3 See: http://data.worldbank.org/country/ghana. In 2010, Ghana’s GDP was re-based -- and the new national account estimates showed that Ghana was a little wealthier than previously estimated.
4 http://data.worldbank.org/country/ghana
human capital development including skills, the creation and adaptation of technologies and what are increasingly known as ‘innovation systems’.5

**Adequate levels and ranges of skills contribute to three core drivers of sustained growth: productivity, diversification and employment.** Skills also have a cumulative impact on other productivity factors including land, capital, labor and technology. In regions where natural resources are scarce or even where such resources are abundant but there is a risk of Dutch disease,6 skills can be among the most critical success factors in diversifying the economy and boosting domestic markets. With other factors held constant, employment is unambiguously linked to job seekers’ skills.

*What skills are necessary to improve productivity, employment or economic diversification?*

The scale and scope of skills required by local or national economies are difficult to estimate in detail. Of course the necessary skills include general cognitive skills like literacy, numeracy and scientific literacy; non-cognitive skills like creativity, persistence, reliability or communication; and more specific, technological, vocational and professional skills. Accordingly, skills are developed at home, in school or at the workplace and only a minority of them are certifiable.

Often, skills are associated with the outcomes of formal public technical and vocational education and training (TVET),7 despite the fact that the sector accounts for less than 10% of the skills acquired (see chapter 3). However, in as much as the definition of TVET includes a broad enough scope of services (including school and nonschool based, formal and informal, public and private, initial and continuous types), skills can be considered as the outcome or the result of TVET programs. This allows the assessment of the TVET sector’s performance, including in terms of the skills produced. It also allows the proposal of policies to improve the sector’s performance, with the general objective of improving productivity, economic diversification and employment.

The momentum in growth and poverty reduction efforts in Ghana requires that the focus be placed on the skills of youth, for one good reason: the median age of Ghana’s population is about 20 years old (UNDP, 2011). Although this new generation of future employees has the highest schooling attainment, it is also the most dependent on salaried employment: many Ghanaian youth have moved to urban areas and can no longer rely on agriculture to sustain themselves and their families.

Although TVET alone does not lead to productivity gains, economic diversification and job creation, it is generally agreed that a blend of cognitive, non-cognitive, intermediate and higher technical skills are crucial to enhance competitiveness and contribute to social inclusion, acceptable employment and the alleviation of poverty.

A large number of young Ghanaians have few or no employable skills. Those who do, predominantly acquire them through informal apprenticeships, with few advantages and significant constraints. The main advantages of the informal apprenticeship system are that it is private,

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5 While this report will focus on skills’ development, the World Bank has also taken an active part in the dialogue on Science, Technology and Innovation.

6 The Dutch disease is an economic concept that explains the apparent relationship between the increase in the exploitation of natural resources and a decline in the manufacturing sector, related to the revaluation of the exchange rate.

7 This report uses the terms ‘Technical and Vocational Education and Training (TVET)’ and ‘Technical and Vocational Skills Development’ interchangeably.
sensitive (if not responsive) to changes in demand and capable of generating private resources. The disadvantages include the lack of clear and reliable standards, the absence of quality assurance, the generally low quality of training, inefficient operation and significant equity problems. These will each be analyzed later in the report.

The key problems with formal TVET programs are their small scale, providing training to only a minority of youth, their fragmented programs and the quality of the service offered: although little is known about the quality of outcomes, there is little evidence that they are better than for informal apprenticeships. Furthermore, the position of formal TVET programs within the education system is unclear at best. Indeed, the absence of academic prestige and limited training opportunities within students’ school careers result in weak performance, poor learning results and difficult school-to-work transitions.

There is also an adverse cycle between high costs, the inadequate quality of supply and low demand, leading to further declines in financing, supply and demand. This adverse cycle means that the technical and vocational skills development promise is at risk of remaining unfulfilled; the long-held government and political promise to the population has always been that increasing skills training opportunities will help solve youth unemployment. This adverse cycle effectively generates lost opportunities: as long as the quality of skills is low and the cost of training is high, key economic sectors will invest in other production factors to substitute for skills. Indeed, profitable production in key Ghanaian industries does not currently rely on improved labor productivity (See Chapter 2).

**Productivity, diversification and employment fail to improve as a result.** Economic diversification is slow at best and so are changes in the structure of the labor market. Consequently, TVET sector reforms and policies tend to focus on the promise instead of the results (past, present or future) or the reality. These reforms and policies focus to a large extent on the investment implications of the need to expand TVET, rather than on the high recurrent costs and lackluster present performance.

The first part of this chapter outlines the global drivers of technical and vocational skills development: the factors contributing to the increased global interest in TVET. Second, it summarizes the Ghanaian national context and country specific drivers of TVET. Third, it highlights the key challenges for Ghana’s TVET system as reflected by recent key policy documents: the Education Strategic Plan (GoG, 2003c) and its revision (GoG, 2009b), and the New Education Reform (GoG, 2004a). Finally, it outlines a conceptual framework that can be used to assess the various kinds of market and non-market imperfections related to TVET in Ghana.

### 1.2. The Global Rise in Importance of Technical and Vocational Skills Development

**Skills development is a broad concept of a new development agenda** that encompasses basic academic skills learned mostly in schools, life-skills learned through socialization in schools, family, community and workplace and technical and vocational skills learned in schools, training institutes and on the job as well as professional skills that are acquired at higher level of educational institutions and in various training programs while on the job market. The TVET system is but one segment of this although it is a critical challenge for policies and policy makers to integrate TVET services in the broader skills agenda. The purpose of TVET is defined essentially in the external social and economic environment where it is expected that TVET leads effectively and tangibly to improved mobility, employability, higher earnings, improved productivity and eventually shared growth and competitiveness of the economy. The vision of a TVET system should be defined within these broad areas.
The first decade of the 21st century saw TVET gradually move up the agenda of donor agencies and governments in Sub-Saharan Africa (King, McGrath and Rose, 2007; King and Palmer, 2007, 2010; Wegner and Komenan, 2008).

The renewed interest in skills is being driven by a number of different factors (King and Palmer, 2010), including:

- **The success of universal primary education and the challenge of post-primary provision.** Agencies such as UNESCO, the UK’s Department for International Development, and others report rising pressure both for TVET and secondary school expansion;
- **The notion of skills for competitiveness, enterprise productivity, individual prosperity and poverty reduction.** Countries increasingly perceive the availability of skills as a crucial factor;
- **The sector-wide agenda.** There is a growing emphasis on holistic, sector-wide approaches to education and training, rather than simply prioritizing universal primary education. Also, it is believed that countries and the international development community need to go beyond Education for All (EFA), in part to achieve it (Palmer et al., 2007);
- **The political agenda.** In many developing countries, a strong political assumption is made that the development of skills can help tackle unemployment; and
- **The security agenda.** In relation to the poverty reduction agenda, it is believed that the provision of skills to disenfranchised youth in fragile states, or fragile regions within states, can contribute to improve countries’ security situations.

In Sub-Saharan Africa, a major force behind this renewed interest in TVET, and linking all the above drivers, is the fact that Africa’s youth unemployment problem has not been resolved. Indeed, the situation has not improved even in the countries with solid growth rates over longer periods (five to seven years).

Since the start of the 21st century’s second decade, TVET has been receiving even more attention, and has shifted from being seen as a sub-sector area of interest only to specialists, to a cross-cutting issue of wide concern.

Against the backdrop of the global financial and economic crisis since 2008, international organizations have re-affirmed the importance of workforce skills and TVET as a key factor in future growth and productivity (ILO, 2012, 2010, 2009; UNESCO, 2011). In 2012, the World Congress on TVET in Shanghai, May 2012 (UNESCO, 2012a, b), the OECD Skills Strategy (OECD, 2012), the World TVET Report (expected early 2013) (UNESCO, 2013) and the EFA Global Monitoring Report 2012 (UNESCO, 2012c) will all bring increased focus on TVET and skills development more broadly. The financial and economic crisis has led to a (formal) jobs crisis in many countries, leaving more and more people to seek work in the informal economy.

### 1.3. Technical and Vocational Skills Development Drivers in Ghana

In the 1990s, in response to the World Declaration on EFA, the government launched a program focusing primarily on access: the Free, Compulsory and Universal Basic Education program. Over the 15-year period from 1987 to 2002, the Bank and other donors provided close to US$ 600 million in soft loans and grants to support a series of education reform programs.

The other development of particular relevance to Ghana’s education sector has been the grant approved by the Fund of the Global Partnership for Education. To qualify for GPE funds, a country

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9 Previously known as the Fast-Track Initiative.
has to prepare a credible strategy for achieving EFA goals by 2015, and demonstrate the existence of a funding gap. Ghana prepared its Education Strategic Plan (ESP) in 2003.

In the last decade, the Free, Compulsory and Universal Basic Education program has led to some of the largest cohorts of primary school leavers ever witnessed; total enrolment in primary and JHS has increased by over 50%; total primary enrolment from 2,586,434 in 2001/2 (GoG, 2003b) to 3,962,779 in 2010/11 (GoG, 2011a), and total JHS enrolment from 865,636 to 1,335,400 (GoG, 2003b; 2011a). This has occurred at a time when Ghana’s formal sector has been unable to generate sufficient employment and income opportunities, in spite of over 20 years of sustained economic growth. The great majority of all school leavers are therefore obliged to enter the informal, microenterprise economy, urban and rural, and receive informal training through apprenticeships or other practical in-service training.

The rapid expansion of primary and lower secondary enrollment as part of the EFA process (Table 1.1.) has increased demand for post-basic education and training opportunities.10 This has led to concerns about youth lacking the opportunity to continue their education beyond junior high school.11 In response, policy makers and politicians have proposed to dramatically increase support to post-basic levels, including TVET.

Table 1.1. Total enrolment in primary and lower secondary schools in Ghana

<table>
<thead>
<tr>
<th></th>
<th>2001/02</th>
<th>2010/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>2,723,300</td>
<td>3,962,779</td>
</tr>
<tr>
<td>JSS/JHS</td>
<td>895,928</td>
<td>1,335,400</td>
</tr>
</tbody>
</table>


The major drivers for the government’s interest in the development of technical and vocational skills are divided between social and economic considerations:

1. Social concerns include the increased demand for post-basic education and training opportunities by individual students and their families, and concerns about youth unemployment (World Bank, 2008a, b). The issue of unemployed JHS graduates who are unable to pursue their education and training (because of the scarcity of places, lacking information or weak performance) is a serious concern to the government at the highest level, as is the fact that the majority of junior high school graduates only find employment in low productive informal jobs; and

2. Economic concerns include the predominance of the informal economy, the low productivity of most industries and the limited sustainability of economic growth, given, among others, the vulnerability of leading industries to fluctuations in commodity prices.

The New Education Reform (NER) is based on a 2004 White Paper (GoG, 2004a) and was introduced in 2007. It aimed to correct some of the inefficiencies and inadequacies of the formal education system. TVET features prominently in these reforms as the sector is perceived as an alternative to general secondary education, on account of it supposedly helping to link the provision of skills with both employment and poverty reduction. The assumption that the provision of skills to youth (through schools or special vocational institutes) will ease school leavers’ unemployment has been longstanding and so are the concerns over the ability of the education and training system to supply the skills demanded by a diversified and competitive economy (World Bank, 2008a).

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10 This expansion has, of course, also resulted in the dilution of the quality of primary and lower secondary schooling.
11 Under the new education reforms introduced in September 2007, basic education in Ghana consists of two years of preprimary, six years of primary and three years of junior high school.
The 2004 Draft TVET Policy Framework for Ghana also specifically mentions concerns about both poverty reduction and economic competitiveness as being key drivers of TVET reform in Ghana (GoG, 2004b).

Ghana is considered a factor-driven economy (World Economic Forum, 2011) and competes based on its factor endowments - primarily unskilled labor and natural resources. To become more competitive, for example through increasing efficiency and quality without increasing item costs, higher education and training have an important role to play (ibid.).

According to the Global Competitive Index ranking of 142 countries, Ghana ranks very poorly in terms of education and training when compared with the rest of the world (See Table 1.2.). When compared with the 30 Sub-Saharan African countries included in the index, Ghana ranks 11th. Furthermore, Kenya is often regarded as a good comparator country to Ghana, and it is clear that Kenya currently out-competes Ghana across the board.

Table 1.2. Global Competitive Index Pillars – Selected Sub-Saharan African Countries, 2011/12

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</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>50</td>
<td>131</td>
<td>73</td>
<td>95</td>
<td>76</td>
<td>38</td>
</tr>
<tr>
<td>Namibia</td>
<td>83</td>
<td>114</td>
<td>113</td>
<td>57</td>
<td>99</td>
<td>95</td>
</tr>
<tr>
<td>Botswana</td>
<td>80</td>
<td>120</td>
<td>93</td>
<td>52</td>
<td>101</td>
<td>101</td>
</tr>
<tr>
<td>Kenya</td>
<td>102</td>
<td>118</td>
<td>94</td>
<td>37</td>
<td>98</td>
<td>59</td>
</tr>
<tr>
<td>Ghana</td>
<td>114</td>
<td>124</td>
<td>109</td>
<td>79</td>
<td>113</td>
<td>99</td>
</tr>
<tr>
<td>Tanzania</td>
<td>120</td>
<td>113</td>
<td>131</td>
<td>73</td>
<td>126</td>
<td>104</td>
</tr>
<tr>
<td>Nigeria</td>
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<td>114</td>
<td>70</td>
<td>106</td>
<td>64</td>
</tr>
<tr>
<td>Chad</td>
<td>142</td>
<td>141</td>
<td>137</td>
<td>97</td>
<td>141</td>
<td>136</td>
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</table>


1.4. TVET Policy, 2002-12

Although there have been a series of policy documents related in whole or in part to TVET over the 2002-12 period, there is no agreed single national skills or TVET strategy that contains clear strategic reform objectives, targets to be achieved, benchmarks, indicators and timelines.12

Between 2002-2008 the government followed what one major bilateral agency in Ghana described as a “dual-track education policy-making process” (Palmer, 2005).

The Education Strategic Plan

Up until its revision in 2009 (see below), the main education policy framework was the 2003-15 Education Strategic Plan (ESP) (GoG, 2003b; 2003c), which we shall refer to as ESP I. The ESP I was arguably a donor-driven document, that was developed with support from various donor agencies.

12 The closest that the government has come to this is the 2007 TVET subcommittee of the National Education Reforms Implementation Committee, although this is in need of revision.
with an interest in basic education. It was an education strategy linked to constitutional requirements to provide free compulsory universal basic education, in line with the targets set out in the Ghana Poverty Reduction Strategy, Education For All and Millennium Development Goals, defining targets through 2015. With regard to TVET, the ESP I – being an MoE strategic document – focused entirely on school-based TVE, and set targets for 2015 related to enrolments, percentage of enrolled females and extent of industrial attachments.

The New Education Reform

In parallel to the ESP I, the government pursued a New Education Reform (NER). A key objective of the NER was to shift the policy focus to post-basic education, based on the assumption that Ghana was on track to achieve full access to basic education in a timeframe shorter than expected.

The NER originated from a panel of academics and other education specialists commissioned by the then president to examine the education system in Ghana. In October 2002 this panel, led by Professor Anamah-Mensah, published its report, Meeting the Challenges of Education in the Twenty First Century (GoG, 2002). In 2004 a White Paper on the Report of the Education Reform Review Committee (GoG, 2004a) presented ministers’ agreed position on the recommendations made in the Anamah-Mensah Report. The White Paper, among other things, proposed to expand post-basic education and training as well as the vocational track at the upper secondary level. This led to the establishment of the National Education Reform Implementation Committee (NERIC) in early 2007, and to the launch of the National Education Reform Program later in 2007.

Comparison of the ESP I and the NER

Whereas the TVET components of the ESP I track of the policy-making process contain one main reference document, the ESP I, the TVET components of the NER track contained a number of policy documents that were never really synthesized. These included: (i) the 2002 Anamah-Mensah Report and the 2004 White Paper (GoG, 2002 and GoG, 2004a); (ii) the 2007 report of the TVET subcommittee of the NER implementation committee (GoG, 2007d); (iii) the latest draft of the TVET policy framework, of August 2004 (GoG, 2004b); (iv) the 2006 Council for TVET (COTVET) Act (GoG, 2006e); (v) the 2007 Operationalizing COTVET Act report (CPTC, 2006); and (vi) the Singapore Action Plan.

A key issue is that while the ESP essentially refers to TVET falling under the aegis of the Ministry of Education, the remit of the NER was much wider. Its key documents covered TVET across multiple ministries as well as nongovernmental TVET, including informal apprenticeships.

There is one more component to the policy discussion. In late 2008 the National Development Planning Commission (NDPC), produced a medium to long-term development plan for the 2008-15 period (NDPC, 2008), which contains a discussion on skills’ development. This was later updated by the NDPC in its Medium-Term National Development Policy Framework 2010-13 (NDPC, 2010a).

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13 This report is hereafter referred to as the “Anamah-Mensah Report.”
14 COTVET is the TVET coordinating council that was set up in 2006 in Ghana. See Chapter 4 for further details.
15 In January/February 2008 the World Bank organised a ‘Leaders in Education and Training for Sustained Growth in Africa (LETSGA) workshop’ in Singapore. At this workshop Ghanaian participants developed a TVET Action Plan, which came to be known in Ghana TVET circles as the Singapore Action Plan.
The Revised Education Strategic Plan and the Status of Overall TVET Policy

In 2009 a revised ESP (2010-20) (hereafter, ESP II) was drawn up (GoG, 2009b) with the aim of harmonizing the TVET and skills development components of the ESP I with the TVET components of the NER. The ESP II Strategies and Work Program document (GoG, 2009c) does a reasonable job at trying to draw in several of the various TVET domains in Ghana, including MoE secondary technical schools, the MoE technical vocational institutes, the MoE polytechnics and — on a superficial level - apprenticeship, agricultural education and non-formal training. For each of these areas, the ESP II outlines objectives, indicative targets and activities. However, this revised ESP fails to cover all providers of TVET; the focus was again mostly on MoE TVET provision and the activities of COTVET itself (since COTVET was placed under MoE).

It should be recalled that at the second cycle level, the NER specified that there should be four streams: academic, technical, (formal) apprenticeship and agricultural. As a result, the ESP II – which is a MoE produced strategy of course – was obliged to attempt to cover these non MoE areas, in addition to non-formal education which also falls under the MoE (but has traditionally been associated in Ghana with adult literacy programs and not non-formal technical skills training). However, it is clear that the strategies related to apprenticeship, for example, are weak: the main activity related to this simply states that: ‘Where appropriate, institutionalize formal and informal apprenticeship programs with local master crafts-persons’ (GoG, 2009c: objective SC11). This is, of course, referring to apprenticeships under the National Apprenticeship Program (see Annex B.9).

What Ghana continues to need is an over-arching TVET strategy document, a national skills strategy, that harmonizes all the policy positions related to TVET and defines objectives, targets, indicators and timelines for all domains of TVET. As of October 2012, this had not been elaborated and, although it technically never went beyond draft stage, the TVET policy framework of August 2004 (GoG, 2004b) remains the only real framework for TVET to date. In late 2011, COTVET commissioned a consultant to review the 2004 policy framework, with the aim of informing the development of a national skills strategy. Indeed, it is positive that the 2012-2016 COTVET strategic plan includes the preparation of a 10 year national strategic plan for technical and vocational skills development (even if it is not expected to be completed until 2016) (COTVET, 2012b). Discussions between the National Development Planning Commission (NDPC) and COTVET are on going on the development of such a strategy. NDPC is leading the process, and COTVET is providing the required information.

1.5. A Framework for Assessing Market and Non-Market Imperfections Related to TVET in Sub-Saharan Africa

The purpose of this section is to outline a specific framework that can help to assess the various kinds of market and non-market imperfections related to TVET in sub-Saharan Africa. This framework is drawn upon in the later sections of this report.

There are several frameworks being developed and adopted to examine the wider skills universe - e.g. all levels of education and training from early-childhood to tertiary, and all types of cognitive, technical and non-cognitive skills. The framework below – which is illustrated by the case of Ghana in this report – complements existing frameworks, some of which are noted below.

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16 This framework was developed by the authors, drawing on Campbell (2002) and World Bank (2010a; 2011a). See also Almeida et al. (2012).
The World Bank Skills Toward Employment and Productivity (STEP) (World Bank, 2010c). This report goes into more detail on one part of the STEP framework, STEP 3 - building job relevant skills, by focusing on the TVET aspect of 'job relevant skills'.

The World Bank System Assessment and Benchmarking for Education Results (SABER) (Tan et al., 2010). This report adds value to this framework by specifically examining TVET from the perspective of market and non-market imperfections.

The Inter-Agency Working Group on TVET Indicators Proposed Indicators for Assessing Technical and Vocational Education and Training (IAWG on TVET Indicators, 2012).


1.5.1. Market Imperfections

Non-competitive markets

*Countries with low skill levels can get stuck in a low-skills equilibrium, where the whole economy becomes adjusted to a low skill level* (Lall, 2000: 22). There are many factors associated with a low skill equilibrium which are often both causes of, and symptomatic of, the phenomenon. In low skill environments, enterprises adapt to the low skill level in a country by adopting simple, low level technologies (Lall, 2000); there are therefore relatively few high skill job opportunities. In turn, the lack of high skill job opportunities means that individuals have less incentive to invest in higher skills. Another cause (and symptom) of a low-skill equilibrium is the imperfect competition for skills (poaching externalities) that exists in many countries; there is a lack of incentive for enterprises to invest in training for their employees when they fear that these employees might be poached by another firm. This helps keep skill levels low. Many countries in sub-Saharan African have (very) large informal economies, which results in additional contributing factors to the perpetuation of a low-skills equilibrium. For example, among informal MSEs, training is not seen as a priority or major constraint and hence there is a low demand for upgrading skills from these groups. Furthermore, informal MSEs often operate in low-income domestic markets where purchasing power is low; as a result, predominant demand is for low cost items which – in many cases – also tend to be low quality items. The inability of many customers to buy higher quality items, suppresses demand among enterprises to up-skill to meet such a need. What is more, those individuals that are learning on-the-job (e.g. through informal apprenticeships), usually only acquire skills to produce cheap, low quality items (on an intermittent basis) and find themselves trapped in a low skills, low productivity vicious cycle.17

Where there is a lack of competition between training providers (see below) the quality of training often gets suppressed and the competencies that individuals can acquire is often reduced, again contributing to a low-skill equilibrium.

Where there is a perceived or actual lack of formal employment opportunities – which are seen as providing higher income than informal work, but which invariably require higher levels of skill attainment – or where there is a perceived or actual difficulty in accessing further education and training, not only can social demand for higher skill levels be suppressed, but completion rates of lower skill levels (e.g. lower secondary level) can actually be reduced; this all helps to perpetuate a supply of individuals with lower skill levels.

17 The skills acquired by on-the-job learners, such as informal apprentices, largely depend on what is produced, which in turn is driven by market demand.
In many countries in SSA, access to credit, technology, land and regulatory frameworks is low; the demand for skills is constrained by these issues. For example, enterprises have an incentive to borrow to finance training as long as the increase in labor productivity and earnings (and hence the internal rate of return) is higher than the interest rate charged. However, financial institutions usually have little information on the benefits of training to individual productivity, as well as little information on the employer or individual – and so may not lend.

Thus, individuals, employers and enterprises can become stuck in a low-skill equilibrium in which the potential to up-skill is there, but there is no incentive to raise skill levels. ‘Countries with the lowest skill levels – and so the greatest skill needs – face the greatest difficulty in providing new skills’ (Lall, 2000: 23-24).

Labor Markets

In SSA, many labor markets are segmented; formal labor markets are typically small and uncompetitive, while informal labor markets are normally large but unproductive. What is more, such segmented labor markets typically do not enable the mobility of those in low-skill, low-wage employment to high-skill, high-wage employment; in other words, mobility from informal to formal labor markets is difficult. In such contexts, enterprises’ and individuals’ relationship with TVET changes. For example, enterprises may not regard training or low skills levels as a priority concern (see above), while individuals may see less benefit in seeking to attain higher skill levels since their mobility to put such skills to use is constrained.

Providers

The public sector training market in many developing countries remains highly uncompetitive due to many factors (see, for example, Johanson and Adams, 2004). Government policies in many developing countries have, over the years, helped to create and maintain supply-driven training systems, within which uncompetitive providers operate, and, crucially, are not incentivized to behave any other way. Financing of public TVET providers remains largely focused on inputs (numbers of students, staff, buildings etc), rather than outcomes; this input focus typically does nothing to promote quality, competition, and improvements in outcomes (e.g. higher percentage of students graduating with a certain competency level, or percentage of TVET leavers who are working in their trade area 12 months after graduating etc). Public financing mechanisms also tend to create and perpetuate long chains of accountability between the provider (the school or training institute) and the client (the youth and their parents). Salaries of teachers and instructors in public providers are paid by the government, not directly by parents, and they know that they will get paid regardless of how many students pass their exams or gain adequate practical competencies. And, they are not easily fired for under-performing, coming to class late or not coming at all for extended periods. 18 Staffing regulations remain de-linked from incentives that would drive improvements in industry-related skills (e.g. linking participation in industrial attachments to career progression and salary increase); rather, they tend to be focused more on encouraging TVET teachers to get higher and higher academic-related qualifications. Public TVET providers typically have relatively limited levels of autonomy to hire and fire staff, introduce new short courses, generate, retain and allocate revenue beyond school fee collection, procure equipment and so on.

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18 In contrast, private training providers tend to have relatively shorter chains of accountability; parents pay school fees to the school, and teachers and principals aim to deliver a good service and be seen to deliver good outcomes (high proportions of students getting high marks, or going to higher education and training). If they don’t, parents are quite free to take their money to another private school.
In some contexts, public training providers are so geographically dispersed that there is simply no competition among providers.

In many developing countries, the largest training offering is from the large informal apprenticeship system – not from formal TVET provision. Here, too, the training market remains uncompetitive, largely because of the uncompetitive nature of the informal enterprises within which the training takes place.

**Inequalities**

The segmented labor markets of many countries in SSA coincide with inequalities that are **geographical, social, educational and economic.** One type of inequality breeds another. For example, educational inequalities at the basic education level, or geographical inequalities in the distribution of skill training opportunities lead to inequalities of access into formal (and informal) TVET, which in turn lead to inequalities of access to, and mobility within, the labor market. Inequalities are themselves exacerbated by the presence of segmented labor markets, inequalities of access to, and/or quality of public services and further by suppressed (low productive) private sector development.

While there can be various reinforcing cycles of inequality, as noted above, the existence of such cycles of inequality suggest that virtuous cycles of equality could be created; e.g. improving equality of access to quality basic education should help to improve equality of access to TVET, the externalities of which should help to address key forms of youth exclusion.

**Information asymmetries and inadequacies**

**Information asymmetries**

There is often an information imbalance about the benefits of/ returns to learning, which can result in under investment in skills, especially by employers.

**Inadequate information**

Individuals often have limited information about the quality of training providers; as a result, they have difficulty in identifying which provider to choose and may end up with low quality training. Information is often lacking on what skills are currently demanded by the labor market (as well as what skills are likely to be in demand in several years time). Individuals, therefore, are usually not able to select training courses or specializations based on current or projected need; instead, they revert to dominant perceptions regarding ‘valuable’ trade areas, rely on family and social connections to suggest areas, or – for women- simply end up going into trade areas that are deemed suitable for their gender.

1.5.2. **Non-Market Imperfections**

Developing country governments often don’t respond to market imperfections, respond in ineffective ways, or in ways that actually make things worse. Key problems with the approach to TVET that many developing country governments take relate to imperfections in institutions and policies.
Institutions

At the level of the institution, the most obvious (but least evidence-based) non-market imperfection is the fact that a lot of trainees complete their training with inadequate or irrelevant skill sets. In many developing countries, large numbers of young people are undertaking public institution-based TVET programs, usually from one to three years, but are graduating with skills that are disconnected from market demand, or with skill competency levels that are below market needs or simply inadequate. This imperfection at the level of the public training institute stems from systemic policy imperfections (see below).

Most governments still act as a large provider of skills without creating incentive systems to encourage equity, quality and competition. At the same time rigid public sector regulations and policies don’t provide the necessary flexibility needed by providers to quickly react to changes in market demand; examples of such rigidities include the centralized decision making / lack of autonomy at the institutional/school level as well as civil service regulations for recruiting, moving, firing staff.

Policies

Financing policies

Typically, the TVET financing and incentive approaches used in developing countries help to create and perpetuate a supply driven, low quality skills provision.

Public financing incentives are lacking for training providers to deliver better services, for employees to improve their skills and employability, and for employers to train more. In many cases, government financing approaches end up distorting markets.

As noted earlier, at the level of the public provider, funding for public TVET institutes and salaries for their instructors are not linked to performance or to any minimum level of quality. Rather, budgets are usually linked to historic allocations, number of students etc. Many salary and promotion systems for TVET teachers and instructors are similar to their counterparts in general education schools; they are based on years of experience and further academic degrees obtained. But incentivizing TVET teachers to pursue higher academic study may not be in the best interest of the young people they are training. Technical education in higher education institutions (universities, colleges, polytechnics) is often very theoretically focused and detached from industry, so that after completing the program the TVET instructor may be no better off when it comes to delivering industry-relevant practical competencies. There are usually no policies that link TVET teacher salaries (or incentives) to industrial attachment to improve their understanding of, and competency in, industry demanded practical skills.

Public subsidies for TVET are often used inefficiently. For example, where subsidized (or free at point of use) short term training offerings are introduced (sometime with the offer of some free or subsidized equipment), these can result in trainees dropping out of longer term training they are currently in (and paying for). In another case, when TVET institutes or other training providers receive direct government subsidies, competition is reduced and individuals tend to migrate to subsidized programs. In many cases, the government is not basing its choice of training provider or modality on evidence of demand or expected return, but on populist and political decisions, as well as on assumptions about the relationship between skills provision and reduction in unemployment.
Public financing can easily substitute for private financing. Governments can end up paying for something that the private sector would have paid for anyway.

*Coordination policies*

One of the most serious non-market imperfections regarding TVET is that of coordination of providers, qualifications, strategies, polices, information, legislation, and development partner support. When set up, TVET coordinating councils are often not given sufficient power, resources and autonomy from any one ministry. Non-market imperfections in coordination, and in collecting (and disseminating) the needed supply and demand information, can result in supply-demand mismatches which lead to skill shortages, gaps and surpluses.

*Targeting policies*

Governments may fail to react to market inequalities which inhibit the access of marginalized groups to TVET.

Typically, public TVET programs are not good at targeting, and don’t cater well to specific needs (of different categories of people). As a result, public funding can be captured by those who are less in need, thus widening inequalities.

An additional consequence of inadequate coordination (above), is that policy makers can receive an incomplete picture of the entire public TVET domain and, while some public providers (especially MoE TVET) are well known and have policy champions to capture support, many others remain neglected, misunderstood and very under-funded.

*Enabling environment policies*

Developing country governments typically fail to do enough to promote skill utilization (and demand) through designing and implementing the right type of policies to promote an enabling environment for skill utilization. There is usually much more government focus on getting young people into, and out of, TVET programs, than there is on putting in place policies, mechanisms and incentives to promote a better utilization of these acquired skills. Part of this is also due to a inadequate policy coordination to join-up policies across sectors to promote better skill utilization overall.

*Comments on the Policy Making Process*

In many cases, TVET policies are the result of policy borrowing; popular assumptions about TVET-development linkages; or, short-term outlooks linked to political campaigns.

Policy borrowing, rather than policy learning – countries sometimes borrow (or are ‘sold’) approaches that work in other countries, without taking into account their own specific local context. Examples include the widespread take up of national qualification frameworks by many developing countries, even when there are growing concerns about their applicability (Young, 2005).

Popular assumptions about TVET-development linkages, rather than evidence-based approaches – in many developing countries, policy makers hold a rather linear view of the links between TVET and youth unemployment, poverty reduction or growth. Expanding TVET provision is very frequently seen as a solution to the challenge of large numbers of unemployed youth; in many cases, however, far too much is expected of what TVET, alone, can do.
Unsustainable, campaign-related TVET approaches, rather than strategic evidence-based thinking – since TVET is so closely linked to dealing with youth employment issues, in too many cases TVET programs and policies spring up that are trying to deliver quick-fixes or quick political wins. Such approaches are typically unsustainable.

Where TVET approaches are based on deeply ingrained assumptions about what TVET can do, and/or on short-term attempts to get quick-wins, public expenditure is not being allocated efficiently, and may even be functioning in ways to crowd out private financing.

1.6. Concluding Comments

Having explored some of the contextual issues related to TVET reform in Ghana, as well as outlining a conceptual framework that we shall refer back to at the end of each subsequent chapter, this report proceeds as follows. Chapter 2 explores issues of TVET demand, looking at both social and economic demand issues. Chapter 3 looks at TVET supply, performance and assessment and provides an analysis of the landscape of TVET providers, formal and informal, public and private. Chapter 4 looks at the critical issue of TVET coordination, and describes the current efforts to improve this via the COTVET. Chapter 5 explores TVET financing, public and private, from the institutional and enterprise levels, to macro financing policies and new financing developments. Chapter 6 concludes with policy recommendations.
Chapter 2: Demand for TVET

Summary

In the last decade, enrollment in JHS increased by almost 50 percent and this led to increased social demand for post-JHS education and training. But such opportunities remain limited. 20 percent of youth 15-17 years of age are enrolled in senior high school; just seven percent enter a public or private TVET program. Policy makers increasingly see the expansion of TVET as a way to combat high levels of youth unemployment. Are school-leavers and their families interested however? And do companies feel the need for a more skilled workforce?

In fact, enrollment in virtually all public TVET institutes has been either static or in decline over the last few years. This trend ignores the artificial enrolment increase that is currently being experienced in 2011/12 which is the result of the retention of students in technical training institutes and other public providers that implemented the 4-year second cycle duration for 2-3 years until the government reversed its decision and reverted to a 3-year second cycle duration. Enrollments in private institutes have stagnated.

This appears to be due to the poor quality of training programs and, more to the point, that they are not seen as leading to jobs. Furthermore, large numbers of young people and children are still out of school (over 1 million in the 6-16 age range), and the majority of those in school are not learning very much; this limits social demand for any type of post-basic opportunity. Despite the rapid increases in primary and basic education in the last decade or more, the overall skill level of Ghana’s labor force remains relatively low. For example, of the total employed population 62% either dropped out of primary or lower secondary school, or have no formal schooling, and only 9% have education to the senior secondary level and higher.

Government incentives, such as scholarships for study at public or private TVET institutes, could influence demand for TVET, but are absent. However, demand for informal apprenticeships, in which a much larger number of young people participate, appears to be strong. It should be noted that demand for places at general senior high schools, seen by many as providing better preparation for higher-paying employment, has increased sharply.

The issue of companies’ demand for technical training is confused. The 2007 World Bank Enterprise Survey found that overwhelmingly few firms perceive the workforce’s lack of skills as a major constraint. This is likely a result of the low-skills equilibrium that the economy and its private sector finds itself in. Ghanaian enterprises appear to have adapted to the low skills level in the country by adopting low level technologies which in turn means that there are relatively few high skill job opportunities. Poaching externalities mean that there is a lack of incentive for enterprises to invest in training for their employees when they fear that these employees might be poached by another firm. This helps keep skill levels low. It will be difficult to reform TVET towards a demand-driven system, when the demand-side of the economy is itself having problems. Moreover, the high degree of informality in the economy implies that much greater attention should be paid towards demand in this part of the economy.

This apparent low demand for skills, which contrasts with the opinions of companies in most other Sub-Saharan African countries, is not well understood however. Other, smaller surveys of businesses in Ghana have reached opposite results. Surveys with more specific questions and assessments of industry’s skill requirements are clearly needed to fully understand this issue, and COTVET should include representatives from the country’s large informal sector to be aware of the full spectrum of training needs.
2.1. Introduction

For TVET to promote economic growth and poverty reduction, TVET policy must consider both the supply of and the demand for skills.\(^{19}\) This chapter reviews the main demand issues, contributing to the discussion of the demand-side of technical and vocational skills in Ghana.

A World Bank report, *Ghana Job Creation and Skills Development* (World Bank, 2008a), examined the economic demand-side issues noted above, but did not fully address the social demand-side issues.\(^{20}\) This chapter aims to complement this report, firstly examining the social demand for TVET, and secondly providing further discussion of some aspects of the economic demand-side analysis, relating for example to the skill needs of formal industry and informal MSEs and to the returns on informal apprenticeships.

The demand-side analysis should consider both social and economic demand issues:

1. **Social demand issues** to be addressed include: (i) the level (past, current and projected) of social demand for TVET on behalf of basic education leavers and their parents; (ii) enrollment in different types of TVET programs and how this reflects social demand; and (iii) the strength of social demand for Ghana’s large private training system (including informal apprenticeships and private vocational institutes).

2. **Economic demand issues** to be addressed include: (i) recent economic trends and economic growth prospects that may signal a future demand for skills; (ii) the structure of the market demand for skills and the driving economic forces; (iii) labor market policies; (iv) nonlabor policies that affect the labor market (such as foreign direct investment and technological development); (vi) employment and earnings trends and what they tell us about the demand for skills; and (vii) the skill needs of formal industry and informal MSEs.

2.2. Social Demand for TVET

As noted earlier, politicians and policy makers in Ghana increasingly perceive TVET as an effective policy option to deal with the large numbers of school leavers and the concern of youth unemployment.

*Is this demand from policy and political communities matched by a demand from parents and youth however?*

Social Demand from JHS Leavers and Non-Completers

Ghana’s progress toward Education for All has resulted in some of the largest cohorts of lower secondary school leavers ever witnessed. Between academic years 2001/02 and 2011/12, enrollment in JHS (public and private combined) increased by almost 50 percent, from 895,928 to 1,434,211 pupils (GoG, 2012; 2004d). Despite this overall increase, still only two-thirds of students that start JHS complete it (GoG, 2012), leaving many locked out of further formal education and training options.

As the number of JHS leavers increases it is inevitable that the social demand for post-basic education and training will increase.\(^{21}\) The pressure for expansion is backed by the analysis of household data, offering evidence of positive economic returns to post-basic education, which

\(^{19}\) For a conceptual framework related to the supply and demand analysis, see Fasih, 2008.

\(^{20}\) A paragraph briefly addressed the potential demand for training (See World Bank, 2008a: 60-61).

\(^{21}\) Basic education includes two years of preschool, six years of primary and three years of junior high school.
provides access to better paying jobs and higher earnings. TVET is also assumed to play an important role in promoting access to both wage and self-employment (World Bank, 2008a: 78).

**However, opportunities for post-JHS education and training remain limited;** of those that complete the 3 years of JHS, half do not make it to further formal education and training. The 2011 BECE was undertaken by a total of 372,799 pupils in 2011, of whom 46% were placed in second cycle formal education (GoG, 2012). Over 200,000 JHS leavers, therefore, were unable to pursue formal post-basic education or training.

Net enrolment in SHS is 24 percent (2011/12) (GoG, 2012). This means that about eight out of every ten youth 15-17 years of age are not enrolled in SHS (although some of these youth may still be enrolled in lower levels of education if they have been repeating one or more grades). Only 5-7% of JHS graduates can expect to find a place in either public or private TVET institutes (World Bank, 2008a: 60-61). The bulk of all post-basic education and training opportunities, therefore, will continue to be provided by informal apprenticeships or on-the-job learning (World Bank, 2008a: 60-61, 78).

**TVET Enrollment Trends**

*What is the likelihood that the expected increase in social demand for post-basic education and training will translate into increased demand for TVET, formal and informal? What do recent trends in TVET enrollment tell us about the social demand for different types of TVET?*

Enrollment in virtually all public TVET institutes has been either static or in decline over the last few years\(^\text{22}\) (Chapter 3):

- Over the period 2001/02 to 2009/10, enrolment in MoE technical training institutes (TTIs) has remained largely stagnant at around 20,000 students (see Annex B.1). A senior MoE civil servant commented that it will be difficult to increase enrollment in TTIs as ‘people don’t want it [Technical and Vocational Education].'\(^\text{23}\) In other words, TVET is not in demand;
- Enrollment in other public TVET providers including the Opportunities Industrialization Centers and National Vocational Training Institute Centers (NVTI) has also been declining; and
- Enrollment in the Community Development Vocational/Technical Institutes and the Integrated Community Centers for Employable Skills (ICCES) has been more or less stagnant over the 2002-11 period (See Annexes B.7 and B.4).

The picture is more complex in terms of demand for different courses: enrollment has apparently increased for some trade areas (especially those related to construction, IT and electrical trades) and decreased for others (such as carpentry, dressmaking and hairdressing – to a lesser degree).

*Although public TVET enrollment figures suggest a falling social demand for TVET, this is not necessarily representative of the sector as a whole, given that most TVET is private, delivered through informal apprenticeships and private vocational institutes.* Indeed, there appears to be a strong social demand for apprenticeships in particular, and the estimated 44S private VTIs train an about 73,000 youth at any one time, almost twice the number as those trained by public VTIs (See Chapter 3). Nonetheless, there is emerging evidence that enrollment in many of these private VTIs may also be stagnating, which suggests that social demand for private TVET is also declining.

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\(^{22}\) This trend ignores the artificial enrolment increase that is currently being experienced in 2011/12 (see Chapter 3).

\(^{23}\) Personal communication, February 18, 2008.
Whereas recent years’ enrollment in formal training courses has declined, or at least stagnated (Chapter 3)24 evidence from the Ghana Living Standard Surveys (GLSS) indicates that the share of the population who have attended a TVET program in fact increased over the 1991/02–2005/06 period (World Bank, 2008a). The two sets of data are not necessarily contradictory; TVET participation may have increased during the 1990s, and declined or stagnated since the mid 2000s. Further analysis is required to fully understand the historical trends.

In addition to public and private TVET institutions there is the much larger informal, or traditional, apprenticeship system, which trains in excess of 440,000 youth at any one time. In fact, according to the living standards surveys of 1991/92 and 2005/06, the proportion of youth aged 20 to 30 years who have had apprenticeship training has increased over the period (World Bank, 2008a).

Even if enrollment in private VTIs is stagnating, clearly the large informal training sector is an indication that parents, and youth themselves in some cases, are willing and able to pay for private TVET, formal or informal. This is a clear indication of social demand for skills training.

Factors Affecting Social Demand

First, the social demand for TVET is constrained among certain disadvantaged and marginalized groups as a result of a series of factors that restrict their access to TVET (discussed in chapter 3). Here we shall highlight the apparent link between initial general educational achievements at basic education level and subsequent access to quality TVET opportunities. On the one hand we note that most formal TVET providers, public and private, have minimum educational entry requirements (usually a complete JHS level of schooling with a minimum threshold aggregate score). Further, even with informal apprenticeships, the evidence is very clear that the majority (75%) of those now entering informal apprenticeships are actually JHS leavers (Monk et al., 2008; Palmer, 2007a; World Bank, 2008a), and some apprenticeships appear to require higher levels of education completion than others (Annex B.14). On the other hand, we note that large numbers of poorer children and youth do not meet these minimum requirements, either because of low levels of learning, or because they leave school early, or never attend; we shall briefly examine each of these issues in turn.

- Low levels of learning, leading to low BECE aggregate scores. National education assessment results show that 90% of children in primary grade 3 in deprived districts are not proficient in either Math or English (World Bank, 2012a; see also World Bank, 2011b).
- Being in school for the right time, or entering school at all. Surveys show that over 1.1m children and adolescents (age 6-16) are out of school in Ghana (in 2009); 830,000 primary age children and 305,000 lower-secondary age children (UNESCO UIS, 2011). These numbers include those that started school, but then dropped out, those that are expected to start school but do so over-age, as well as those that are expected never to go to school.

Inequitable access to basic education (see also CREATE, 2011), therefore, contributes to inequitable access to TVET, and therefore contributes to suppressing social demand for TVET among certain groups. This is especially the case in the three northern regions where basic education access and achievement can be very low (World Bank, 2012a), impeding access to – and social demand for - TVET in this area.

Second, social demand for TVET in Ghana is suppressed because of the low public prestige value given to TVET and associated occupations; it is seen as an area where academically weak students and drop-outs go (Bortei-Doku Aryeetey et al., 2011). For those that do decide to take up TVET, either through choice – or lack of it (if it is their only option for post-basic education and training) -

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24 We exclude here the artificial enrolment increase that is being experienced (especially in 2011/12): see Chapter 3 for discussion.
the perceived and actual quality of skills training that the government provides is likely to affect the social demand for different types of training because, if given a choice, families are more likely to enroll their children in better quality vocational training institutes (VTIs). The result is an unofficial hierarchy of VTIs: parents prefer to send their children to TTIs; if this proves impossible, NVTIs are given second priority, followed by community development institutes, and youth leadership and skills training centers. Of all the publicly funded VTIs, integrated community centers (ICCES) are generally the least sought after.

A third factor influencing the social demand for training relates to the perceived and actual relevance or usefulness of the training offered to the labor market. Do the post-training employment and income opportunities for TVET graduates encourage others to enroll? Indeed, TVET may have a role to play in influencing the preferred type of work (wage or self-employment). However, graduate pay is inadequate, jobs are scarce, and support for the creation of MSEs is insufficient. As a result, TVET remains less popular than general education, regarded by many as a better preparation for the available formal employment opportunities.

While low levels of learning achievement at the basic education level, as well as low or no attendance at this schooling level will obviously affect individuals’ chances of accessing senior high school, for those that do attend school and that pass the BECE, there remains a preference for general over technical/vocational post-basic options for the two latter reasons noted above. This is clear in enrolment numbers. While formal TVET numbers have somewhat stagnated, between 2002/03 and 2009/10 enrollment in senior high schools increased from 301,120 to 537,332 students (GoG 2011a; GoG, 2004d), clearly underlining the social demand for general education. It will be interesting to track student demand for the vocational, technical and agricultural senior high school (SHS) streams, to establish the degree of continuity in the nature of demand, reflected in the strong historical preference for the academic, general education stream.

Incentives to Stimulate Social Demand

For the formal public TVET sector there are currently no government incentives, such as targeted reductions in training fees or conditional cash transfers, that might encourage parents to send their children for training, or that might encourage more equitable access. This contrasts with the government policy for general basic education, which has been made fee-free, through the implementation of capitation grants in all schools, and for which school feeding programs in targeted schools further stimulate demand. This said, there is clearly an unfinished educational agenda at the basic education level – over 1 million out of school and low levels of learning. Thus, there is clearly still a strong rationale for incentivizing and encouraging increased access to, and learning achievements at, this level. Because of the links noted above, this may also help to stimulate social demand for TVET (but only when the other issues related to social prestige and relevance of TVET are addressed). Lastly, it should also be noted that no government incentives stimulate demand for, or promote equitable access to, the private TVET sector either (for private VTIs or informal apprenticeships).

25 The same point has been made with reference to general academic schooling (Fasih, 2008).
26 It has been noted that in this sense general education is more ‘vocational’ than vocational education and training proper (Foster, 1965a and 1965b).
27 Enrolment in SHS was even higher in 2010/11, at about 730,000 (GoG, 2011a). However, this figure is not used above as it contains large numbers of students who have been retained in the SHS system during the 2-3 years when the government implemented a 4-year SHS program. And it is therefore not representative of recent trends in SHS enrolment which have shown year on year increases of approximately between 20,000 to 40,000.
2.3. Economic Demand for TVET

This section starts by briefly reviewing the current labor market context, it then furthers the discussion of formal industry and informal MSEs’ skill needs (including the potential skills needs for the oil and other emerging sectors), and lastly, it reviews the returns on informal apprenticeships.

Labor Market Overview

Ghana’s labor market is segmented; the formal and informal economic sectors were estimated at 18% and 82% of the total labor active population, respectively (GSS, 2008 in Gondwe and Walenkamp, 2011). Two-thirds of those in the informal sector are employed in agricultural activities (World Bank, 2008a). The majority of new jobs are informal (ibid.). Mobility from the low-skill, low-income informal segment of Ghana’s labor market and the higher-skill, higher-wage formal segment of the labor market is not easy.

The overall structure of Ghana’s economy, with an over-reliance on primary products (e.g., agriculture, timber, gold) and a large informal economy, has changed little since independence in 1957.

The key productive sectors of Ghana’s economy are agriculture (34.3% of GDP in 2007 and employing 56% of the labor force), services (31% of GDP in 2007 and employing 29% of the labor force) and industry (26% of GDP in 2007 and employing 15% of the labor force) (GoG, 2005; CIA World Fact Book, 2009).

The official total unemployment rate is less than 4%, while the unemployment rate among youth aged 15–24 ranges from 9% in rural areas to 23% in urban areas (GSS, 2008). But the official unemployment rates mask the reality of Ghana’s un- and under-employment situation; the official definition excludes those that are available for work but are not actively seeking for one in the formal economy.

Since the early 1990s, the most interesting development in Ghana’s labor force has been the rapid growth in rural self-employment. Formal wage employment has also increased at a faster rate than the growth of the labor force, but it is the lowest paying jobs that have seen the most significant increase (Nsowah-Nuamah et al., 2010).

The significance of education has shifted from being an entry point into public employment to being an entry point into the lower paying small enterprise sector (Nsowah-Nuamah et al., 2010).

Despite the rapid increases in primary and basic education in the last decade or more, the overall skill level of Ghana’s labor force remains relatively low. For example, 62% of the total employed population either dropped out of primary or lower secondary school, or have no formal schooling; and, only 9% of the total employed population have education to the senior secondary level and higher (GSS, 2008 in Gondwe and Walenkamp, 2011).

The Private Sector’s Demand for Skills

The demand for skills among the private sector is low in Ghana (see below). This is likely a result of the low-skills equilibrium that the economy and its private sector – from MSEs to larger companies - finds itself in.

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28 See also World Bank (2012b: chapter 5) for more on Ghana’s labor market, including on the extent of informality.
Ghanaian enterprises appear to have adapted to the low skills level in the country by adopting low level technologies which in turn means that there are relatively few high skill job opportunities. Poaching externalities mean that there is a lack of incentive for enterprises to invest in training for their employees when they fear that these employees might be poached by another firm. This helps keep skill levels low.

The bulk of Ghana’s private sector is made up of informal MSEs. Here too, evidence suggests that training is not seen as a priority or major constraint and hence there is a low demand for upgrading skills from these groups (see below). Most Ghanaian informal MSEs operate in low-income domestic markets where purchasing power is low; as a result, predominant demand is for low cost items which – in many cases – also tend to be low quality items. The inability of many customers to buy higher quality items, suppresses demand among enterprises to up-skill to meet such a need. What is more, those individuals that are learning on-the-job (e.g. through informal apprenticeships), usually only acquire skills to produce cheap, low quality items (on an intermittent basis) and find themselves trapped in a low skills, low productivity vicious cycle.

According to the 2007 World Bank Enterprise Survey, skills were not considered to be a constraint by many company managers. It is interesting that the ‘inadequately educated workforce’ option was not selected among the top 10 constraints by the managers of the Ghanaian firms surveyed. The survey results show that the overwhelming majority of Ghanaian firms (about 95 percent on average), regardless of their size, do not perceive the skill level of the workforce as a major constraint: only six percent of small firms, three percent of medium firms, and one percent of large firms selected this option (See Figure 2.1).

Figure 2.1: Firms Identifying Labor Skill Levels as a Major Constraint, by Size, Ghana and Comparator Country Samples, 2007

According to the World Economic Forum Global Competitiveness Report 2011/12, less than 6% of Ghanaian businesses asked considered an ‘inadequately educated workforce’ to be their most

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29 The 2007 World Bank Enterprise Survey in Ghana, quoted in World Bank, 2008a, asked firms about their top 10 constraints. The 15 options were: access to finance (availability and cost); access to land; business licensing and permits; corruption; the courts; crime, theft and disorder; customs and trade regulations; electricity; the inadequately educated workforce; labor regulations; political instability; practices of competitors in the informal sector; tax administration; tax rates; and the transport of goods, supplies, and inputs (See www.enterprisesurveys.org).

30 The two main constraints identified by Ghanaian firms in 2007 were electricity (49% of firms) and access to finance (33% of firms). It is not surprising that electricity was the most frequently cited constraint as there were serious electrical shortages in 2007 at the time of the survey.
A problematic factor for doing business; this compared to a Sub-Saharan Africa average of about 7% (World Economic Forum, 2011). In Ghana, the top five most cited business challenges were access to financing (23%), taxation (12%), corruption (11%), poor work ethic in national labor force (10%) and an inadequate supply of infrastructure (10%) (ibid.).

Further, according to the AGI Business Barometer, none of the top 10 challenges cited by Ghanaian businesses include mention of education or skill constraints. For SMEs, the top 3 challenges relate to credit and tax (Table 2.1.).

Table 2.1. AGI Business Barometer, Top Challenges by Enterprise Size

<table>
<thead>
<tr>
<th>Size</th>
<th>Challenges</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
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</thead>
<tbody>
<tr>
<td>SMEs</td>
<td>Access to Credit</td>
<td>Cost of Credit</td>
<td>High Level of Taxation</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>High Level of Taxation</td>
<td>Competition from Imported Goods</td>
<td>Depreciation of the Cedi</td>
<td></td>
</tr>
<tr>
<td>African Giants</td>
<td>Competition from Imported Goods</td>
<td>Delayed Payment</td>
<td>High Level of Taxation</td>
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</tbody>
</table>

Source: AGI (2011)

An analysis of 2002 company data found similar results: only zero percent, two percent and six percent of micro, small and large firms respectively identified the lack of the workforce’s skills as a problem (Teal, 2007).

Figure 2.2: Firms Identifying Labor Skill Levels as a Major Constraint, Ghana and Top 10 Countries, 2007 or most recent year

Percent

Source: www.enterprisesurveys.org
The 2007 World Bank Enterprise Survey figures for Ghana are significantly lower than those for most Sub-Saharan African (SSA) countries and other low-income countries (LICs - See Figures 2.2 and 2.3). Ghanaian firms’ economic demand for skills appears to be low and companies seem satisfied with workers’ skills.

The results of these surveys for Ghana have led some analysts to suggest that ‘there is an adequate or excess supply of the skills required in the labor market for the types of firms and jobs that are emerging in its economy, that is, nonfarm self-employment and small-scale firms’ (Fasih, 2008: 43). However, in the light of the inadequacy of the supply of skills in terms of relevance and quality (see Chapter 3) it is clear that a more careful interpretation of these data are required to understand the apparent inadequate economic demand for skills. For example, it is not clear what types or levels of skills respondents where referring to when responding to the surveys. Neither is it clear which skills are rewarded by the private sector and which ones are not. The skills concept can be very broad, including everything from foundation skills (the 3Rs: reading, writing, and arithmetic), through core and soft skills, to technical, vocational and entrepreneurial skills, among others. In fact, the survey simply asked firms whether an ‘inadequately educated workforce’ was an obstacle to their operations.\(^{31}\)

On the other hand, the World Bank Enterprise Survey methodology used was the same for all countries, meaning that the results are comparable, and underline the relatively low priority given to skills by Ghanaian firms, when compared to almost all other countries surveyed.

Although the causes of this situation require further investigation, some hypotheses have been formulated:

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\(^{31}\) Commenting on the World Bank Investment Climate Surveys, which show that firms in more than a fifth of recently surveyed developing countries rate workers’ inadequate skills as a major or severe constraint to their operations, DFID notes that it appears that the skills most widely demanded by businesses appear to be equivalent to two to three years of good quality secondary education (DFID, 2008: 6). Teal (2007), with similar findings, measures the workforce’s skills according to the average number of years of education and the extent of its general, and firm specific, work experience. However, using years of education as a measure of skills tells us nothing about the type of education (general or vocational), its quality, or indeed the type of skills being measured (cognitive, non-cognitive, soft, core skills, and so on). Moreover, using work experience as a measure of skills does not specify the type of skills being referred to. It can be argued, therefore, that the questions related to skills in these surveys are rather vague to be of significant policy use; indeed they may result in misleading findings.
1. The apparent low economic demand for skills may actually be a manifestation of Ghanaian firms’ constructive reaction to the weakness of education and skills training supply. In recognizing that the supply of skills is poor, firms react by providing significant enterprise-based training to compensate;

2. The small size, low capital intensity and low productivity of Ghanaian firms may account for the low level of firms’ concern about some issues, like workers’ skills (World Bank, 2008a); and

3. Most of the demand for products and services produced by informal MSEs comes from low-income groups in the domestic market. This may reduce the demand for skills training given that the market cannot afford better quality goods and services (Palmer, 2007a; Johanson and Adams, 2004: 135).

However, these arguments could apply to other developing countries as well, and yet they appear not to. In the World Bank Enterprise Surveys, Malawi was the country with the highest proportion of firms citing skill levels as a constraint (50 percent, compared with less than five percent for Ghana); for small firms, the respective figures were 26 percent and six percent. This is surprising given that Malawi, like Ghana, is a country with a large informal economy dominated by micro and small enterprises.

To complicate matters further, other surveys have produced opposite results. An analysis of firms’ training needs in the Greater Accra area, conducted by a team of consultants for the Ghana Industrial Skills Development Centre (GISDC) in late 2005, seem to contradict the World Bank Enterprise Survey findings (GISDC, 2005). The GISDC consultants interviewed 20 companies in the Greater Accra area involved in processing industries (including food, beverages, and other commodities), ranging from large multinationals to small and medium enterprises (SMEs). They noted that labor’s skill levels appeared to be a serious constraint and concluded that:

Each company experienced serious difficulties in maintaining their plant due to the lack of suitably skilled staff. In many cases these difficulties resulted in excessive downtime and loss of production. In some cases companies had to bring in expertise from Europe at considerable expense to solve problems. In other cases, companies were unable to expand their business due to a reluctance to modernize their equipment because of a lack of suitable maintenance skills. (GISDC, 2005: 13)

As a result of this training needs analysis, three main areas of skills and knowledge shortages were identified:

1. Skills for the installation, commissioning, maintenance and repair of modern automated electro-mechanical plants, including for the use of programmable logic controllers, electrical motor installations, electronics, pneumatics, hydraulics, pumps, fans, compressors and associated control systems;

2. Fundamental common engineering skills and the associated underpinning knowledge, including: bench and pipe fitting and metal machining, welding and material joining, and the fundamentals of mechanical, electrical and electronic technology; and

3. Soft skills, including in: problem-solving; team working; effective communication; health, safety and environmental awareness and information and communication technologies (ICT).

A small survey of seven industries, four industry associations and support agencies, and six informal sector associations in the Greater Accra area was conducted for this report (Ahorbo, 2009b). It also revealed that employers experience great difficulty in finding the right quality of technically skilled workers. Industries are reluctant to recruit people who have acquired their skills through informal

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32 See Annex B.16 on the GISDC.
33 These companies included: Guinness, Fan Milk, Tex Styles Ghana, Euro Metal, Tema Oil Refinery, Unilever, Coca Cola, Accra Brewery, Wienco and Nestlé.
apprenticeship training; they focus on candidates who can read, write, communicate, work with other people, solve problems, show initiative, plan and manage their own workload and work with minimum supervision. In addition there is demand for multi-skilled people who are also prepared to continue to learn.

At the technical operation level, the skills required are related to general plant maintenance (mechanical and electrical) and process engineering. These include skills in instrumentation and controls, refrigeration and air-conditioning, communication and technical reporting, leadership and team-working. In the mines, the skills in demand are related to bench and pipe fitting and machining, electrical installation, repair and maintenance activities (including the use of programmable logic controllers), welding and metal fabricating. In most industries, the soft skills in such areas as communications, leadership and team-work form aspects of the in-house training conducted for employees.

In response to the Ghana Employers Association’s 2006 Skills Gap Survey which sampled 90 employers, the largest share of employers, 47 percent, reported computer literacy or IT skills as lacking among existing employees, followed by teamwork skills, cited by 43 percent of employers. Thirty percent of employers indicated that employees lacked technical or practical skills (See Figure 2.4).

**Figure 2.4: Skills Lacking in Existing Employees**

<table>
<thead>
<tr>
<th>Percent</th>
<th>Literacy Skills</th>
<th>Technical or Practical Skills</th>
<th>Problem-Solving / Analytical Skills</th>
<th>Management Skills</th>
<th>Customer Relation Skills</th>
<th>Career Planning and Development</th>
<th>Computer and IT Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numeracy Skills</td>
<td>10.0</td>
<td>16.7</td>
<td>40.0</td>
<td>40.0</td>
<td>40.0</td>
<td>30.0</td>
<td>46.7</td>
</tr>
<tr>
<td>Teamwork Skills</td>
<td>14.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Skills</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Customer Relation Skills</td>
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<tr>
<td>Career Planning and Development</td>
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<tr>
<td>Problem-Solving / Analytical Skills</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Technical or Practical Skills</td>
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<tr>
<td>Literacy Skills</td>
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<tr>
<td>Numeracy Skills</td>
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</tr>
</tbody>
</table>

*Source: GEA, 2006.*

On the basis of these findings, are skills a constraint in Ghana or not?

Although these findings appear to be contradictory, they may in fact be the result of the different methodologies used, or the type of skills respondents, interviewers and analysts had in mind at the time of the survey. For instance, the World Bank Enterprise Survey aimed to assess the workforce’s skill levels, but only asked enterprise managers if their workforce was ‘inadequately educated.’ The GISDC training needs assessment, on the other hand, was much more specific: it asked enterprise managers to identify shortfalls for a series of skill categories including technical knowledge; practical and technical skills; communication skills; problem-solving skills; team-working skills; numeracy skills; behavioral skills; IT skills; and other areas. Clearly, surveys need to be much more specific about the type and level of skills being evaluated. Failure to do so may lead to results that could be misinterpreted by policy makers.

According to two key members of Ghana’s Council for TVET, the true economic benefits of technical and vocational skills are not fully appreciated. As a result, Ghanaian firms tend to underestimate the
constraints related to the lack of skills and actual demand is therefore artificially low. As a result, COTVET argues, it is necessary to stimulate the demand for technical and vocational skills. 34

COTVET also indicated the need for skills needs’ assessments to be conducted, especially for the key economic sectors (see more below). Indeed, the absence of such assessments to help identify the critical mass of skills and the expertise required for the structural transformation of the economy is a concern. However, there have been some small-scale attempts, such as the GISDC analysis noted above.

2.4. Skill Demand and Supply in Selected Sectors 35

Sector-level assessments completed for high-potential sectors (ICT, construction, oil and gas, hospitality/tourism, horticulture, livestock) in 2010, suggests that these sectors cannot grow to full potential without expansion of the skills pool (World Bank, 2010d, e, f, g, h). Below, we summarise the key issues arising from these studies on ICT, construction, hospitality/tourism and oil and gas, as well as discussing the informal sector.

ICT Sector

The ICT sector in Ghana is facing a supply shortage due to low availability of ICT-trained personnel, high labor costs, and inadequate industry-readiness of graduates. Supply-side bottlenecks are inhibiting demand across the ICT space, in both core (IT, telecom, IT enabled services) and allied (non-core like banking, insurance etc.) sectors. The core sector is small, and does not employ a sizeable number of personnel. Non-core/allied sectors like banking, insurance and the public sector are rapidly absorbing ICT-trained people in technical, techno-managerial and support positions. These allied sectors are growing fast in Ghana, and adopting technology into their mainstream business models. Software and IT companies spend 4,000-12,000 US dollars per employee to train them to productive levels, and provide them with internationally recognized industry certification. This constitutes a huge financial burden, discourages intake of new talent, and shrinks the demand for labor and skills. Furthermore, because the pool of well-trained IT professionals is small (less than 1000 graduates per year with IT related higher education degree), small IT firms lose their trained employees to larger corporations such as banks and telecoms, which further discourages them to hire and train more talent. Addressing the supply-side bottlenecks through encouraging professional training, certification, infrastructure for teacher training, and increasing capacity for entrepreneurship are recommended. Simultaneously, building linkages with the global and regional markets needs to be a priority for Ghana in the ICT space, and the case study proposes some solutions for this.

Construction Sector

The construction sector story from a skills-development perspective is one of supply-side bottleneck. The strong 10-12% growth (by employment) in the Ghana Construction Industry (GCI), predominantly in the informal market, is not matched by an increase in number of skilled construction personnel due to insufficient infrastructure and low institutional capacity to match the growing need for sophisticated construction skills needed for new, modern projects. This is pronounced in the segment of artisans/tradesmen who form the bedrock of the GCI, and the deficit is in the range of 60,000-70,000 workers. In the GCI, there is both a quantity and productivity issue, and while the informal sector makes up for some of the deficit, it exacerbates the productivity issue due to inefficient and ineffective training practices.

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34 Personal meeting with the executive director and chairman of COTVET, December 3, 2008.
35 See Annexes A.1-A.5 for the full case studies on the ICT, construction, hospitality/tourism, and oil and gas sectors.
Hospitality/Tourism Sector

While the tourism/hospitality sector is growing rapidly and has tremendous potential to absorb personnel, some micro-level factors across technical and non-technical areas are hampering productivity. Compared to construction, where the problem was both in terms of quantity and quality of labor, in hospitality/tourism, the challenges are primarily around quality. The two main sources of low productivity are outdated ICT curriculum/ limited field experience, and high variation in the soft-skill quotient of the workers. This has much to do with the nature of the industry. The hospitality/tourism sector is fairly fragmented with primarily small-medium sized firms and a few large hotels. To attain efficiency in distribution, customer acquisition, and services, these firms are adopting ICT and e-business in a big way. However, the industry-polytechnic linkage is weak, the ICT curriculum outdated, and the teachers are from Europe and North America and not familiar with ICT usage in local industry. All these are severely impacting the productivity of personnel. On the other hand, the industry is also heavily dependent on human capital where soft skills are very important. However, polytechnics find that it's hard to train students within a span of 6 months to a year. Some of these traits like ‘being solution-oriented, a positive and proactive attitude, patient and calm demeanor in the face of challenging requests’ fall low on the coach-ability matrix. Main reforms are taking a critical look at the current ICT curriculum and including more field work, as well as, tying up with larger hotels to have operational orientation for staff especially for soft-skills.

Oil and Gas Sector

In mid-2007 Ghana’s then President Kufuor announced a significant oil discovery off the West Coast, which began production in December 2010. Oil revenues are expected to be about $1bn/year (OBG, 2011). Currently, Ghana is primarily operating in the upstream part of the oil and gas value-chain (exploration, drilling, production); and many of the jobs created require higher levels or specialised skills which Ghana cannot meet the demand for. However, even when all the oil fields are on-line, and taking into account the requirements to hire local staff, Ghana is looking at creating only 10,000 jobs in the next five years. Ghana’s exposure in mid-stream (transport, trading) and downstream (refining, storage, distribution to final customer) is low due to various reasons like inadequate infrastructure capacity, lack of fabrication and service capabilities and others. Since most O&G companies are doing vertical integration (upstream, midstream and downstream), they are also looking for graduates who are flexible across sectors, and able to cater to different parts of the value-chain. To play more in downstream sectors, some policy reforms are needed.36

Furthermore, additional assessment is needed to appraise the needs for both extraction and processing skills, and those required by related industries, such as pharmaceuticals, solvents, fertilizers, pesticides, and plastics.

Some implications for Ghana’s oil and gas industry can also be derived from the experience of other countries:

1. The number of formal employment opportunities that the oil industry will create should not be overestimated, as the oil industry is capital-intensive by nature. Nonetheless, employment opportunities for both less skilled and more skilled workers will arise;
2. Global industries such as the oil industry understand the value of training and do not need to be convinced to conduct enterprise-based training;
3. Many oil companies like to offer entry-level workers in-service training. In Australia for example, the extensive, high-quality formal and informal training delivered within the oil and

36 This paragraph written largely by Priyam Saraf (consultant). See Annex A.3.
gas industry has essentially been conducted in isolation from the formal TVET sector (Figgis and Standen, 2005);

4. The increasing complexity of operations and the sophisticated nature of technology means that employers expect a higher level of skills and adaptability of new recruits, including the ability to work with computers and other sophisticated equipment. Companies also like new recruits to have problem-solving skills, and good communication and teamwork skills; and

5. Oil sector employers are more interested to know about potential employees’ specific competencies, than their general qualification level. As a result, competency-based training is important.

Informal Sector

In Ghana where the majority of the workforce is engaged in informal economic activities, training should be driven by the very different demands of both the formal and informal sectors. COTVET, which does not have any informal sector board representatives, should be more aware of the demand for training from the informal economy.

Should workers pay be a reflection of demand for their skills, it is interesting that individuals who followed informal apprenticeships earn even less than those with no training (Monk et al., 2008). A World Bank study (2008a) claims this to be the same for those with an apprenticeship and different levels of education. In other words, someone with either primary or secondary school and an apprenticeship earns less than someone with either primary or secondary schooling alone. Meanwhile, Monk et al. (2008) offer an exception to this; they claim that those who did an informal apprenticeship earn less than those with no training, and also claim that the returns to doing an apprenticeship decline with level of formal schooling. However, the World Bank (2008a) cautions about self-selection behind this effect (p.72). And there are other reasons why policy makers should interpret Monk et al.’s findings with caution. Making general claims about the economic returns to a typical informal apprenticeship is arguably misleading to policy-makers; economic returns are very likely to vary according to location, type of trade area, and the quality of the schooling received by apprentices. Claims about returns to informal apprenticeship, of unspecified type, quality or context, are no more helpful to policy makers than the unqualified generalization about 4 years of schooling making a difference to agricultural productivity (see King et al., 2005; King and Palmer, 2006, for a discussion).

*Training Master-Craftspeople and their Apprentices*

Master-craftspeople’s pressing skill needs are categorized into managerial skills, technical skills and pedagogical skills. Apprentices’ skill needs include entrepreneurship skills, basic literacy and numeracy skills, basic theoretical trade knowledge, blueprint reading and customer service skills.

Currently, training is approached on ad hoc basis. Mostly training for master craftspeople is organized by informal sector associations when their members are confronted with technical problems or challenges that require skills’ upgrading. Such training is often sponsored by NGOs or donors.

The informal apprenticeship system itself has been running for years without structured syllabuses or course outlines (See Annex B.14). There are few schemes to assess the skills acquired by

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37 This section draws heavily on a background paper produced for this report (Ahorbo, 2009b). See Amankrah, 2007 for a discussion on informal apprenticeship trades with market potential.
apprentices, meaning that the quality of the training provided remains uncertain.\textsuperscript{38} Often training is limited to what the master-craftsperson knows and can teach. This in turn is generally determined by what master-craftspeople have themselves been taught through the informal apprenticeship system, watching their own masters work, with little or no academic explanations or theoretical backing.

### 2.5. Concluding Comments

This review of TVET demand in Ghana illustrates several of the market and non-market imperfections outlined in the conceptual framework elaborated earlier (chapter 1).

In recent years enrolment in formal public and private TVET institutes’ enrollment has either stagnated or declined. This appears to be due to the poor quality of training programs and, more to the point, that the training is not seen as leading to (formal) jobs. This is both a cause of, and a consequence of, the existence of a low-skills equilibrium in a large part of Ghana’s private sector. The labor market continues to signal to people that formal academic education results in higher wages; and, while true, the number of such formal jobs is limited and support for the creation of MSEs is insufficient. Meanwhile, this signaling causes demand for places at general senior high schools to continue to increase sharply. This is also illustrative of the information inadequacies that are prevalent.

Demand for TVET is also affected by labor market segmentation and mobility. Ghana’s labor market is segmented; the formal and informal economic sectors are estimated at 18% and 82% of the total labor active population, respectively. Mobility from the low-skill, low-income informal segment of Ghana’s labor market and the higher-skill, higher-wage formal segment of the labor market is not easy.

The demand for TVET by the private sector is generally low. Ghanaian formal enterprises appear to have adapted to the low skills level in the country by adopting low level technologies which in turn means that there are relatively few high skill job opportunities. Meanwhile, the bulk of Ghana’s private sector is made up of informal MSEs and evidence suggests that training is not seen as a priority or major constraint and hence there is a low demand for upgrading skills from these groups.

The two most significant non-market imperfections with regard to demand include: the inadequate information on skill needs that is provided to both the private sector and to young people; and, the lack of synchronization between TVET reform programs and policies that promote better utilization of skills.

\textsuperscript{38} The NVTI conducts annual proficiency tests for about 7,000 informal apprentices (See Annex B.2). In addition to this, some of the larger informal sector associations operate their own informal skills’ testing resulting in certificates being issued by the associations which are recognized by their members nationwide (Haan and Serrière 2002).
Chapter 3: TVET Supply, Performance and Assessment

Summary

The Ghanaian government still acts as a large provider of skills in the country and there are approximately 200 public TVET institutes spread across all 10 regions of the country, with a total enrolment of about 40,000 students.

The discussion of TVET in Ghana unfortunately tends to focus on the institutions run by the Ministry of Education, thereby overlooking other public and private providers. There are in fact two main public systems: institutions under the MoE, and those under the Ministry of Employment and Social Welfare (MESW). In addition, at least six other ministries provide some form of training.

In addition to public skills provision, there is a considerable range of private for-profit and nonprofit institution-based pre-employment training. An estimate of the total number of private registered and unregistered VTIs is 445 (c.80% registered with NVTI, and 20% unregistered but active VTIs). An estimate of the total national enrolment in private TVET institutes for 2010/11 might be 73,000.

However, the greatest number of youth by far are trained through informal apprenticeships; the informal apprenticeship system is estimated to train over 440,000 youth at any one point. There are no entry requirements, but most apprentices have completed junior high school. Apprentices typically pay their masters for the training they receive, but the fees are lower than in the formal system, making the apprenticeship system the most accessible form of vocational training for the poor.

All the data from the public TVET providers themselves clearly shows that enrolment levels over the last several years are either stagnant, or in slight decline. For example, over the period 2001/02 to 2009/10, TTI enrolment has remained largely stagnant at around 20,000 students; NVTI enrollment dropped by close to 10 percent over two years, from 7,297 to 6,710; ICCES enrolment dropped by almost 40% (2008-2011); and, over the period 2001/02 to 2011/12, enrolment in the Community Development Vocational/Technical Institutes has been more or less stagnant, with a slight decline in the most recent year.

Ghana’s TVET system tends to exclude the poor. The share of individuals having followed a TVET course rises with families’ level of wealth. For example, the share of individuals from the highest income quintile having technical or vocational training is seven times that of those from the poorest quintile.

Training institutes are typically under resourced. Approximately half the teaching staff of public and private institutes lack minimal training. Yet there is little in-service teacher training on offer and few industrial attachments. In addition, the inflexibility of instructors’ posts, in part due to their protection by labor unions, helps make schools unresponsive to market changes that require new or modified courses. Infrastructure is often dilapidated and equipment outmoded or simply lacking. No public institutes provide post-training support, and only a few public TVET providers offer short training courses for the informal sector.

Most available TVET data refers to the number of institutes, staffing and enrollment. There are virtually no data on outcomes, such as graduate employment rates. Unit training costs are published only for one of the two main MoE training institutes, and are imprecise.
3.1. Introduction

This chapter on TVET supply complements the discussion in an earlier World Bank report, *Ghana Job Creation and Skills Development*,\(^{39}\) providing a considerably more detailed analysis of the variety of TVET providers, distinguishing between different types of public and private institutes. This distinction should be useful to policy makers.

The Suppliers of Technical and Vocational Education and Training in Ghana

Although it is known that there is a wide variety of formal training providers, information is lacking about most of them, with the exception of the MoE technical training institutes. The large number of other providers tends to be overlooked.\(^{40}\) While this report’s annexes provide ample detail on each of the main TVET providers (for the 2002-12 period), this chapter aims to provide a more general overview of the scope of pre-tertiary TVET supply, through: formal public TVET providers; private institutions; and, private enterprise-based training, including informal apprenticeships (See Table 3.1).

\(^{39}\) World Bank, 2008a. See especially pp60-66.
Table 3.1: Main Public and Private TVET Providers, by Supplier (2012)\textsuperscript{41}

<table>
<thead>
<tr>
<th>Public TVET</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Training Institutes (TTI)</td>
<td>Ministry of Education / Ghana Education Service (MoE/GES)</td>
</tr>
<tr>
<td>National Vocational Training Institute Centers (NVTI)</td>
<td>Ministry of Employment and Social Welfare (MoESW)</td>
</tr>
<tr>
<td>Integrated Community Centers for Employable Skills (ICCES)</td>
<td></td>
</tr>
<tr>
<td>Opportunities Industrialization Centers (OIC)</td>
<td></td>
</tr>
<tr>
<td>Social Welfare Centers</td>
<td></td>
</tr>
<tr>
<td>Youth Leadership and Skills Training Centers</td>
<td>National Youth Authority (NYA), under the Ministry of Youth and Sports (MoYS)</td>
</tr>
<tr>
<td>Community Development Vocational/Technical Institutes</td>
<td>Ministry of Local Government and Rural Development</td>
</tr>
<tr>
<td>GRATIS Foundation</td>
<td>Ministry of Trade and Industry (MoTI)</td>
</tr>
<tr>
<td>Farming Institutes</td>
<td>Ministry of Food and Agriculture (MoFA)</td>
</tr>
<tr>
<td>Roads and Transport Training Centre</td>
<td>Ministry of Roads and Highways</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Private TVET</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Vocational Training Institutes</td>
<td>Private</td>
</tr>
<tr>
<td>Private Formal Enterprise-Based training</td>
<td>Private</td>
</tr>
<tr>
<td>Private Informal Apprenticeship Training</td>
<td>Private</td>
</tr>
</tbody>
</table>

The analysis draws out thematic issues related to: (i) the coverage and location of training; (ii) access (the number of institutes, the youth targeted, entry requirements) and enrollment (by gender); (iii) equity; (iv) staffing (the number and quality of staff, the availability of in-service training); (v) the training environment (tools, equipment, curricula, course duration); (vi) the labor market relevance of training (staff and trainee industrial attachments other links to enterprises, post-training support, career guidance); and (vii) institutional autonomy and the availability of data (on access, efficiency, quality, outcomes, tracer studies, impact assessments).

3.2. Formal Public TVET Providers

The Ghanaian government still acts as a large provider of skills in the country. Public TVET institutions offer intermediate, advanced, and technical skills training:

- The Ministry of Education TVET, referred to in this report as “school-based”, is handled through Technical Training Institutes (TTIs) by the Ghana Education Service (GES), which operates all public schools and institutes;\textsuperscript{42}

\textsuperscript{41} See Annexes for more details.

\textsuperscript{42} School-based TVE programs are also provided by the MoE through senior high schools (secondary technical schools), where students may take elective courses in technical and/or vocational subjects (including building, metalwork, auto-mechanics, electricity, textiles, art and so on), leading to a WAEC certificate. In addition, students take the 5 core courses (Math, English, Social Studies, Science and ICT). However, it is not possible to consider this avenue of TVET in this analysis, as data on secondary technical schools are not disaggregated from the general secondary school stream.
The Ministry of Employment and Social Welfare TVET is provided through vocational training institutes, including NVTIs, ICCESs, Social Welfare Centers and Opportunities Industrialization Centres (OICs); and

Up to five other ministries offer sector-specific training programs. These include the Ministry of Youth and Sports, the Ministry of Local Government and Rural Development, the Ministry of Food and Agriculture, the Ministry of Transportation, and the Ministry of Trade and Industry.

**Ghana’s public sector training market remains highly uncompetitive** and Government policies have, over the years, helped to create and maintain a supply-driven training system, within which uncompetitive providers operate, and, crucially, are not incentivized to behave any other way.

**Coverage and Location**

Public institutional TVET providers can be found in all 10 regions of the country, with the exception of Opportunities Industrialization Centers, found only in three. Most tend to be located in urban areas, with the exception of the publicly funded Integrated Community Centers for Employable Skills and the Youth Leadership and Skills Training Centers which are predominantly rural (See Table 3.2). Especially in rural areas, public training providers are often geographically dispersed and this reduces competition among providers, and therefore reduces quality.

**Table 3.2: Coverage and Location of Public TVET Institutes, by Type, 2012**

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Training Institutes</td>
<td>All regions</td>
</tr>
<tr>
<td>National Vocational Training Institute Centers</td>
<td>All regions</td>
</tr>
<tr>
<td>Integrated Community Centers for Employable Skills</td>
<td>All regions</td>
</tr>
<tr>
<td>Opportunities Industrialization Centers</td>
<td>3 Regions</td>
</tr>
<tr>
<td>Community Development Vocational/ Technical Institutes</td>
<td>All regions</td>
</tr>
<tr>
<td>Social Welfare Centers</td>
<td>All regions</td>
</tr>
<tr>
<td>Youth Leadership and Skills Training Centers</td>
<td>All regions</td>
</tr>
<tr>
<td>Ghana Regional Appropriate Technology Industrial Service</td>
<td>All regions</td>
</tr>
</tbody>
</table>

**Access and Enrollment**

There are approximately 200 public TVET institutes, including 36 under the MoE, 116 under the MoESW and the remainder under different ministries. The MoE’s technical training institutes accounted for over 70% of total public enrollment in public TVET institutes in 2011/12, being far larger than other public training institutes. The average number of trainees in a TTI is 812, compared with 278 in the Opportunities Industrialization Centers, 257 in the NVTIs, 128 in the Community Development Vocational/Technical Institutes and up to 80 in the Youth Leadership and Skills Training Centers and the ICCES (See Table 3.3).
### Table 3.3: TVET Enrollment (full-time students), by Type of Institute and Gender, latest year

<table>
<thead>
<tr>
<th>Type of Institute</th>
<th>Number of Institutions</th>
<th>Trainees-Centre Ratio</th>
<th>National Enrollment</th>
<th>% Female</th>
<th>Enrollment Trend (i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Training Institutes (2011/12)</td>
<td>36</td>
<td>812:1</td>
<td>29,218</td>
<td>17%</td>
<td>Stagnant 2001-2010</td>
</tr>
<tr>
<td>National Vocational Training Institute Centers (2011/12)</td>
<td>36</td>
<td>257:1</td>
<td>9,500**</td>
<td>26%</td>
<td>Recent decline</td>
</tr>
<tr>
<td>Integrated Community Centers for Employable Skills (2011/12)</td>
<td>59</td>
<td>76:1</td>
<td>4,465**</td>
<td>30% **</td>
<td>Decline or stagnant</td>
</tr>
<tr>
<td>Opportunities Industrialization Centers</td>
<td>3</td>
<td>278:1</td>
<td>835</td>
<td>55%</td>
<td>Recent decline</td>
</tr>
<tr>
<td>Community Development Vocational/ Technical Institutes (2011/12)</td>
<td>24</td>
<td>128:1</td>
<td>3,070</td>
<td>68%</td>
<td>Stagnant 2001-2010</td>
</tr>
<tr>
<td>Social Welfare Centers (2010/11)</td>
<td>18</td>
<td>131:1</td>
<td>2,350**</td>
<td>53%</td>
<td>—</td>
</tr>
<tr>
<td>Youth Leadership and Skills Training Centers (2011/12)</td>
<td>11</td>
<td>71:1</td>
<td>1,948</td>
<td>36%</td>
<td>Slight increase</td>
</tr>
<tr>
<td>Ghana Regional Appropriate Technology Industrial Service (2010)</td>
<td>12</td>
<td>27:1</td>
<td>245</td>
<td>—</td>
<td>Recent decline</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>199</td>
<td>—</td>
<td>39,781</td>
<td>34%</td>
<td>Stagnant/Decline</td>
</tr>
</tbody>
</table>

**Source:** Personal communication direct from above providers (May 2012), see Annex B.

**Note:** ** Estimates. (i) This trend ignores the artificial enrolment increase that is currently being experienced (see below).

Reporting on public TVET enrolment data by the MoE only tells part of the story. According to the MoE EMIS (GoG, 2012), public enrolment in TVET increased sharply between 2010/11 and 2011/12 by over 30% and it suggests that this is in part due to the absorption of some private VTIs into the public system. It is true that some private VTIs have been absorbed by the MoE Technical Training Institutes, but this only accounts for an additional two to three thousand students. A much more significant factor for this increase was the extension of the second-cycle duration to 4 years. For the MoE Technical Training Institutes, the switch from 3 years second-cycle duration to 4 years was short-lived (only for those students starting in the years 2007-2009 – it has since reverted back to 3 years); but this had the effect of increasing enrolment by about a third. The 3 year time lag until these students reached their 4th year explains why there is a sudden enrolment increase in 2011/12. But it is an artificial increase; it simply shows the same students staying in the system longer, rather than more students actually entering. It does not indicate an increase in demand for public TVET. Since the second-cycle has now reverted back to 3 year duration, it can be expected that future years data for total public enrolment will decline again and stabilize at a much lower level.

In 2011/12, total enrollment in public TVET institutes of full-time students was approximately 40,000 trainees. Factoring out this artificial enrolment increase, all the data from the public TVET

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43 The situation varies a little depending on the public provider. Outside the MoE there is confusion about the official duration of second-cycle TVET training, with many providers still providing the 4 years as per the reform. For example, the Youth Leadership and Skills Training Institutes used to have a 2 year training duration, but increased it to 4 years to align with the NVTI (Annex B.6). Meanwhile, the NVTI itself increased its training duration from 3 to 4 years (Annex B.2). As a result, their enrolment increased significantly because the same students were staying in the system longer.
providers themselves clearly shows that enrolment levels over the last several years are either stagnant, or in slight decline.

For example, over the period 2001/02 to 2009/10, TTI enrolment has remained largely stagnant at around 20,000 students (Annex B.1); NVTI enrollment dropped by close to 10 percent over two years, from 7,297 to 6,710 (See Annex B.2); ICCES enrolment dropped by almost 40% (2008-2011) (Annex B.4); and, over the period 2001/02 to 2011/12, enrolment in the Community Development Vocational/Technical Institutes has been more or less stagnant, with a slight decline in the most recent year (Annex B.7). Although the decline in enrollment suggests a decline in access to, and demand for TVET, the Ghana Living Standards Surveys show that even though TVET reaches only a small share of the population, this share did actually increase over the 1991/02–2005/06 period (World Bank, 2008a).

Information on training efficiency (measured by dropout and completion rates) is not routinely collected by the majority of training providers. Based on the available evidence from Integrated Community Centers for Employable Skills, 10 to 30 percent of trainees drop out annually, which implies completion rates for four-year courses ranging between 24 to 65 percent.

**Entry Requirements**

Most formal public and private TVET providers target lower secondary school graduates and often set a minimum aggregate Basic Education Certificate Examination (BECE) score as an entry requirement. However, the ICCES centers and the Community Development Vocational/Technical Institutes appear to be the most accessible of all the public TVET institutes; they admit JHS dropouts, youth with weak JHS aggregates, and sometimes young people with even less schooling. Some nonprofit private vocational training institutes are also more lenient (Palmer, 2007a).

**Equity**

Ghana’s TVET system tends to exclude the poor. The share of individuals having followed a TVET course rises with families’ level of wealth. For example, the share of individuals from the highest income quintile having technical or vocational training is seven times that of those from the poorest quintile (World Bank, 2008a). The reasons appear to be that:

1. **Educational entry requirements** set by most formal TVET providers, public and private, are generally not met by many of the poorer pupils; incomplete basic education and very low learning outcomes inhibit access to formal TVET.
2. The mainly urban location of formal training institutions makes for difficult access by rural communities, that tend to be poorer. Only the public ICCES and some NGO training centers are located in more rural areas.
3. Most formal TVET training courses are pre-employment courses of long duration (two to four years). The resulting opportunity costs of not working are too high for poorer families to support. In some communities opportunities exist for petty trading or other activities that do not require any vocational or technical skills, and provide immediate income, even if it is low.
4. The direct cost of formal training (tuition fees, contributions to parent-teacher associations, fees for practicals, uniforms, books and so on) may not be affordable to the poor, leading to their exclusion, especially from for-profit VTIs or TTIs.
5. Few VTIs offer scholarships, though some have informal arrangements to facilitate fee payment, such as extended payment terms or ad hoc support from staff. Other options of financial support are equally scarce.

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44 This section on equity is inspired mainly by Palmer et al., 2009.
Public spending has not reacted to market inequalities which inhibit the access of marginalized groups to TVET. In fact, much public spending on TVET is not targeted at the poor but is captured by those who are less in need, thus widening inequalities. For example, the World Bank (2010b) estimates that only 19 percent of the public spending for MOE vocational education reaches the poor. The hardest public TVET provider for young people to enter (the TTIs) is the most subsidized provider with the lowest fees; TTI training fees are on average about one tenth of those in the other public TVET providers (see Annex B.1).

Most of public TVET enrollment is male: in the TTIs and NVTIs, that account for the highest enrollment, only 17 percent and 26 percent of trainees are female, respectively. However, the Community Development Vocational/Technical Institutes and the Opportunities Industrialization Centers attract greater proportions of female trainees, at 68 percent and 55 percent respectively. Sociocultural and traditional pressures steer women to traditionally female trades in both the formal TVET system and the informal apprenticeship system, giving them fewer opportunities to access more dynamic and emerging areas of study such as electronics, IT and auto-mechanics. Overall, female trainees account for approximately 34 percent of the total (Table 3.3).

In Ghana most people leave TVET programs and enter the informal economy, working in low pay, low-skill, low mobility occupations.

### Staffing

The training, qualification, and upgrading of instructors is of obvious importance to public and private TVET institutions. The 2008 EMIS survey (GoG, 2008c) found there to be a significantly higher proportion of trained instructors in public institutes (63 percent) than in private ones (46 percent).  

| Table 3.4: TVET Staff and In-Service Training, by Type of Institute and Gender, most recent year where data available |
|--------------------------------------------------|-----------------|-----------------|-----------------|
| Technical Training Institutes                    | 2,019           | 18%             | Limited         | 2011/12         |
| National Vocational Training Institute Centers   | —               | —               | —               |                 |
| Integrated Community Centers for Employable Skills | About 700 **  | 33%             | Limited         | 2011/12         |
| Opportunities Industrialization Centers          | 50              | —               | None            |                 |
| Community Development Vocational/ Technical Institutes | 186            | 84%             | On an ad hoc basis. | 2011/12         |
| Social Welfare Centers                           | 177             | 52%             | Limited         | 2010            |
| Youth Leadership and Skills Training Centers     | 103             | 39%             | Non existent prior to 2010; limited | 2011/12         |

TVET instructors are considered to be trained if they have obtained the Technician II Certificate or above.
In-service training provided by public TVET institutions is infrequent (See Table 3.4). Meanwhile, EMIS data shows that, on average, public and private providers train their staff about the same; between 2009/10 to 2010/11 four to five of every ten instructors in both public and private TVET institutes indicated that they ‘hardly ever’ received training (GoG, 2011b). Most departments and agencies responsible for TVET provision cite the lack of funding as the main cause.

Given that most public TVET staffing decisions are taken at the head office level, it can be difficult for training institute managers to hold their staff to account for performance, or offer them incentives.

Staffing regulations are not linked to incentives that would drive improvements in industry-related skills, for example linking participation in industrial attachments to career progression and salary increases. Instead, promotion and salary enhancement comes from getting higher and higher academic-related qualifications.

Training Environment

Training quality is to a large extent driven by the public funding policies for government TVET institutions (see chapter 5).

Many TVET institutes’ infrastructure, whether public or private, is dilapidated, and equipment and tools are often outdated or simply lacking (See Table 3.5). According to 2005/06 EMIS data, only 12 percent of public and 29 percent of private training centers described themselves as ‘well-equipped.’ In contrast, 37 percent of public and 12 percent of private institutions described their facilities as ‘poorly equipped’ or with ‘no equipment’ (GoG, 2006f). Furthermore, 2010/11 EMIS data showed that 20 percent of public and private institutes’ classrooms needed major repairs (GoG, 2011b).

Table 3.5: Public TVET Training Environment, by Type of Institute, 2012

<table>
<thead>
<tr>
<th>Institute Type</th>
<th>Quality of Equipment and Tools</th>
<th>Trainee-Teacher Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Training Institutes</td>
<td>Some large machinery, mainly outdated. Some new equipment.</td>
<td>13:1</td>
</tr>
<tr>
<td>National Vocational Training Institutes</td>
<td>Low quality.</td>
<td>—</td>
</tr>
<tr>
<td>Integrated Community Centers for Employable Skills</td>
<td>Low quality, outdated.</td>
<td>7:1**</td>
</tr>
<tr>
<td>Opportunities Industrialization Centers</td>
<td>Mostly outdated and obsolete</td>
<td>17:1</td>
</tr>
<tr>
<td>Community Development Vocational/ Technical Institutes</td>
<td>Low quality, outdated. Some new equipment expected 2012.</td>
<td>17:1</td>
</tr>
<tr>
<td>Social Welfare Centers</td>
<td>Mostly low quality</td>
<td>13:1</td>
</tr>
<tr>
<td>Youth Leadership and Skills Training Centers</td>
<td>Low quality</td>
<td>19:1</td>
</tr>
<tr>
<td>Ghana Regional Appropriate Technology Industrial Service</td>
<td>Good</td>
<td>27:1</td>
</tr>
</tbody>
</table>

** estimate
TTI equipment is usually obsolete and bears little resemblance to what is commonly used in industry; whereas equipment is generally over 20 years old, a lot of Accra Technical Training Center and Tema Technical Institute’s equipment dates back to the Soviet support of the mid-1960s. In 2011, a Ghana-Austria TVET Project rehabilitated and equipped some existing workshops at Takoradi Technical Institute, St Paul Technical Institute, Kukurantumi (SPATS) and Tema Technical Institute. Moreover, in 2012, the African Development Bank funded Development of Skills for Industry Project (DSIP) will provide support to ten TTIs. Community Development Vocational/Technical Institutes will receive some new equipment, tools and infrastructure work under the African Development Bank (2009-2013) the Gender Responsive Skills and Community Development Project. Many of the Integrated Community Centers for Employable Skills (ICCES) lack even such basics as tools, books and materials. Public TVET institutes typically have no regular budgetary allocation for the development, improvement and rehabilitation of infrastructure, or for tools and equipment. Where the latter do exist, the amounts are woefully inadequate.

As a result, the general quality of training is poor. The quality of graduates depends on the core strength areas of the institution attended to a great extent. However, the generally inadequate preparation of new TVET graduates means that companies generally need to retrain them.

In terms of other non-trade specific courses taken in formal TVET providers, many have traditionally offered subjects like Math and English. Under the New Education Reform, the government indicated that core examinable subjects should be taught in all second-cycle institutions (including formal TVET providers), including Math, IT, general science, social studies and English. Part of the rationale for this was to improve vertical mobility of trainees, as these core subjects will facilitate access to polytechnic for example. However, so far only the MoE TTIs have been able to fully adopt all these subject areas. Other formal TVET providers like NVTI does English, Math, Entrepreneurial Studies and ICT as examinable subjects (but not science or social studies).

Labor Market Relevance

The global labor market relevance of TVET in Ghana is generally poor. Curricula tend to be excessively theoretical; instructors with marketable and up-to-date skills are difficult to attract and retain, and they are not encouraged to acquire the required practical experience through industrial attachments. Other market links such as industry liaison officers, training for the informal sector, short courses, and post-training support are almost absent. Even the market relevance of privately offered TVET is questionable. Industrial attachments are almost standard practice for students however, despite some shortcomings, and trainees gain further experience by carrying out contracts for external clients.

TVET training curricula tend to be very theoretical, and oriented toward formal employment. No training needs’ assessments are conducted and courses remain predominantly supply-driven. Pre-employment training courses are usually of long duration, and few are competency-based. Employers and existing enterprise owners have virtually no input into the determination of the trade areas of courses, or the design of their content.

The inflexibility of TVET instructors’ posts, partly due to their protection by labor unions, mean that it is difficult for formal public training institutes to react quickly to changes in economic

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46 While this statement is accurate in general, several centers in Ashanti Region are in a slightly better position as they have received some support from NGOs over the last 5-10 years to improve workshop equipment and introduce computer equipment.

47 Except for the Social Welfare Centers, and for the Integrated Community Centers for Employable Skills.
demand, and provide new courses or change teaching approaches as required (Botchie and Ahadzie, 2004; Levine, 2008). It is difficult to dismiss instructors whose skills are outdated or who cannot adapt; and the limited availability of in-service training and industrial attachment places for staff mean that retraining instructors is neither quick nor straightforward. As a result, there may be supply-side pressure to offer courses for which instructors are available, even when labor market demand for certain trade areas or skill sets is dwindling. Furthermore, as salaries in public and most private TVET institutes cannot compete with those of industry, it is difficult to attract and retain instructors with up-to-date, marketable skills.

**Opportunities for industrial attachments for staff are scarce**, especially in rural areas, and few instructors other than Technical Training Institute staff are offered any support to benefit from them. There are no financial incentives; indeed, instructors are expected to pre-finance their attachments and await later reimbursement. There is no career incentive either, as the promotion system does not take the industrial experience acquired into account. As a result instructors have low motivation to gain practical experience. Furthermore, attachments are usually only available with larger formal companies, meaning that instructors’ understanding of the informal economy and MSE business issues is poorer still.

Finally, other factors reflecting the labor market relevance of TVET range from inexistent to weak:

- **Industry Liaison Officers** are only found in TTIs, but they are not effective in their work;
- **Short courses** are not common: only GRATIS and some of the TTIs offer them;
- **Informal sector training** is only regularly offered by a few public TVET providers. The NVTI, for example, provides short courses for master-craftspeople, OIC has a project to train informal apprentices and GRATIS undertakes the regular training of a variety of informal sector workers. Between 2003 and 2005 the government Skills Training and Entrepreneurship Program (STEP) program provided short-duration training to the unemployed in partnership with public TVET institutions; and
- **Post-training support** (such as start-up tools or capital) is virtually inexistent. At best, graduates may obtain some informal advice from their instructors about which government and nongovernmental organizations might be able to offer them guidance. Some support is offered by private VTIs, especially those receiving external funding.

**It might be expected that private for-profit VTIs provide better quality and more relevant training than their public (or nonprofit grant-funded private) counterparts.** Obeying to market pressures, for-profit VTIs would have to close if the public perceived the quality to be low or the relevance of the training offered to be minimal. Indeed, the decline in enrollment in many private VTIs may reflect precisely this. Although some private VTIs clearly do attempt to engage with the labor market through industrial attachments and the provision of services directly to the public, enabling them to meet the needs of the labor market, it is difficult to establish their number (See Annex B.13).

**On the upside, work placements are fairly common for trainees.** Only ICCES, Social Welfare Centers and some private VTI trainees do not carry out practical industry attachments, although even they are due to in their third and forth years of training, as part of the latest reforms. The success of these placements varies however, due to the challenges faced: (i) opportunities are limited, especially for the more rural VTIs; (ii) industries/enterprises are offered no incentive to offer trainees the experience; and (iii) the sustenance stipend is inadequate, and trainees often face accommodation and transport problems as a result.

Market contracts are also undertaken to a varying degree by all TVET providers (carpentry trainees manufacture furniture to order, for example), representing a necessary source of income for private institutes, and raising training providers’ awareness of market needs.
Institutional Autonomy and Data Availability

In most cases, the autonomy of public TVET institutions is limited. Typically, decisions on budgets, the hiring, dismissal and transfer of staff, course choices and fee levels are made at the head office level. Training institutes’ directors are allowed the initiative of undertaking contracts and other activities, and are entitled to determine the use of the income generated and the training fees collected.

Almost all data on formal TVET provision relate exclusively to supply-side monitoring (number of institutes, staff, enrollment); for example as reported in the annual Report on Basic Statistics and Planning Parameters for Technical and Vocational Education in Ghana (e.g. see GoG, 2011b, 2009a, 2008c, 2007a). Apart from gender disaggregation, no other equity indicators are available. There are little or no data on: (i) the quality of training; (ii) efficiency (including dropout and completion rates); (iii) the financing of the system; or (iv) training outcomes (such as the share of graduates finding a job, or if and how they use the skills acquired). 48

3.3. Private Institution TVET Providers

In addition to public skills provision, there is a considerable range of private for-profit and nonprofit institution-based pre-employment training. In general, private for-profit VTIs are located in urban and metropolitan areas, faith-associated VTIs are in both urban and rural areas, and nonprofit VTIs run by NGOs are usually found in rural areas.

The number of nongovernmental TVET institutes is not precisely known. A 2008 EMIS report (GoG, 2008c) noted that there were 629 public and private TVET institutions in its database, while the 2011 EMIS report put the figure at 700 institutions (GoG, 2011b); implying the existence of between 430 and 500 private providers based on the data above. This figure is similar to those of both the January version of Ghana’s 2004 Draft TVET Policy Framework (GoG, 2004c), and a policy research report that mentions the existence of 450, registered and unregistered (Botchie and Ahadzie, 2004). On the other hand, a report from NVTI in 2010 states that there were 345 private VTIs registered with the institute (NVTI, 2010), suggesting that up to 150 private VTIs operate unregistered nationwide.

Total enrollment in private VTIs is not known exactly either: since 2006/07, EMIS has been collecting some basic data for private TVET institutes, but the sample is only partial, covering between 130-170 of the approximately 430-500 number of registered and unregistered private VTIS (Table 3.6.). Nonetheless, the average enrollment per institute suggests that enrollment levels are largely static. Apart from a few VTIs which receive external grants, evidence from a small survey of 10 private VTIs in the Greater Accra area suggests that enrollment may actually be declining (Ahorbo, 2009a).

Table 3.6. Private TVET Institutes covered by EMIS sample 2006/11

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolment</td>
<td>20,957</td>
<td>23,452</td>
<td>25,929</td>
<td>24,547</td>
<td>29,307</td>
</tr>
<tr>
<td>Number of institutes in sample</td>
<td>129</td>
<td>143</td>
<td>163</td>
<td>154</td>
<td>169</td>
</tr>
<tr>
<td>Average enrolment / institute</td>
<td>162</td>
<td>164</td>
<td>159</td>
<td>159</td>
<td>173</td>
</tr>
</tbody>
</table>

Sources: 2006/07 data from GoG (2008c), 2007/08 and 2008/09 data from GoG (2009a) and 2009/10 and 2010/11 from GoG (2011b)

48 Also, critically, no real data on impact – e.g. using control groups.
If we assume that 20% of the unregistered VTIs have closed down, we might estimate that the total number of private registered and unregistered VTIs is 445 (345 registered with NVTI and an estimated 100 unregistered and active VTIs). Taking an average enrolment per institute of 164 trainees (the per institute average for the period 2006-11), an estimate of the total national enrolment in private TVET institutes for 2010/11 might be 73,000.

Another type of private institution-based provider was the Ghana Industrial Skills Development Center (GISDC) at Tema, a public-private partnership between the Dutch and Ghanaian governments and Ghanaian private companies, which offered short competency-based training courses to Ghanaian industry (Annex B.16). However, for all its promise, the GISDC collapsed after only a couple of years of operation; it failed to attract enough industry investors, courses were too expensive, staff salaries too high, and ultimately the GISDC ran out of funds to operate.

3.4. Enterprise-Based TVET Providers

Informal Apprenticeship Training

The largest provider of skills training remains the informal apprenticeship system; there are about 4 informal apprentices for every trainee in formal public and private training centers combined. However, as with formal TVET provision, the informal apprenticeships offer largely uncompetitive training, mainly because of the uncompetitive nature of the informal enterprises within which the training takes place. This said, there is a slight degree of competition between types of informal apprenticeship, as evidenced by the different levels of education of apprentices with particular trade areas (see Annex B.14).

Informal apprenticeships are offered throughout Ghana, although they tend to be concentrated in regional and district capitals and larger rural communities. In more rural locations master-craftspeople tend to use their trade skills on a part-time basis, farming being the main activity, and so are less likely to take on apprentices.

The informal apprenticeship system provides training to over 440,000 youth (15-24 years old) at any one time (GLSS 2005/06 data in Nsowah-Nuamah et al., 2010). Informal apprenticeships are gender-biased, like formal TVET training, with female trainees being attracted to the traditionally female trade areas.

Informal apprenticeships remain the most accessible option of skills’ acquisition for the poor. Unlike formal TVET, there are no entry requirements, such as having completed basic education, although most apprentices have done so, often performing poorly at the BECE exam. Training fees are often lower and the terms of payment are more flexible than for formal training. Apprentices can also usually arrange a payment schedule according to their personal circumstances. Some are trained and pay in installments; some pay after the training; others are trained for free by relatives and friends. A further arrangement is for trainees to work for their master for a number of years after having completed their apprenticeship, effectively repaying the master-craftspeople in kind. This generally means that the poor take longer to complete their training. Apprentices do however usually receive “chop money” from their masters, thus reducing the burden on their family. Apart from this food stipend, trainees do not earn anything during their training (Palmer et al., 2009).

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49 See Annex B.14 for further discussion on informal apprenticeship training. See also a summary of skills development in Ghana’s informal sector (in World Bank, 2012b).

50 In total there were some 730,000 adults (aged 15-64) engaged in apprenticeship in Ghana in 2005/06 (ibid.).
Anecdotal evidence in 2012 suggests that some apprenticeship trade areas have become less popular, including carpentry and tailoring. The large influx of Chinese-made plastic furniture, tables, ceiling sheets, as well as ready-made garments has undoubtedly had an impact on the demand for carpenters and tailors in Ghana, and could explain such a drop in interest.

There have been several attempts to support informal apprenticeship training in Ghana (see Annex B.14 for details), but no intervention has yet had any systemic and sustainable impact. The latest government attempt to improve informal apprenticeship is via the National Apprenticeship Program (NAP) (Annex B.9). The NAP has been some ten years in the pipeline, and has become today something very different from what was originally envisaged in the 2002 President’s Committee Report (GoG, 2002). Then, it was suggested to formalize and regulate certain aspects of the largely private apprenticeship system (e.g. registration of apprenticeship providers, training content, duration of training programs and certification). However, when the NAP was finally launched in 2011 it had become a small-scale state-funded program serving only 1% of the 440,000 youth in informal apprenticeship. Or, to put it another way, each year, some 120,000 youth leave basic education without access to post-basic programs (World Bank, 2011a); the NAP reaches only 4% of this number.

Formal Industry Training

Industry training is also offered in the formal wage sector of the economy, which is small in Ghana, accounting for approximately 16 percent of employment according to the 2006/07 Ghana Living Standards Survey (World Bank, 2008a).

A 2007 enterprise survey conducted by the World Bank found that firms of all sizes offer formal training, although medium and especially large firms are more likely to do so than small firms (See Figure 3.1). Indeed, 77 percent of large firms offer enterprise-based training, significantly more than the SSA and LIC averages, of 65 and 61 percent, respectively. The same survey found that foreign-owned firms were more likely to train their staff than nationally owned firms, and exporting firms offered more training than their non-exporting counterparts (www.enterprisesurvey.org).

A small survey (Ahorbo, 2009b) of seven industries, four industry associations and various support agencies in the Greater Accra area conducted for this report found that in general, industries acknowledge that there is skills mismatch and that formal TVET institute graduates are inadequately trained. It is in an effort to narrow this gap that some industries have established training workshops where new recruits undergo intensive training before assuming their responsibilities.
The vast majority of new recruits in medium to large industries start working as apprentices, even if recently graduated from a formal TVET institute. They are generally given one or two years of in-house training to strengthen their foundation skills (science and mathematics for instance) and build their technical trade knowledge and skills (plumbing, electrical wiring, welding and machining for instance) to enable them to handle multiple tasks.

Industries are particularly interested in technicians with valuable knowledge and skills in one or more trades other than that in which they specialized. In an effort to help TVET instructors be abreast of the current technologies and manufacturing processes, attachment programs are organized by some industries for instructors during school vacations. Technical training is offered to employees as and when the need arises, for instance when new equipment or manufacturing processes are introduced; and health, safety and environment compliance training is offered regularly. Some companies also encourage their employees to devote time to their personal development, fully bearing the cost when the courses selected are relevant to the employees’ work.

3.5. Concluding Comments

This review of TVET supply, performance and assessment in Ghana illustrates several of the market and non-market imperfections outlined in the conceptual framework elaborated earlier (chapter 1).

We have shown above that there is a training market imperfection in Ghana. The formal TVET providers remain largely supply-driven and uncompetitive, in spite of all the rhetoric in about ‘demand-driven’ approaches. Such institutes are typically very unresponsive to changes in demand; they lack the autonomy, the capacity and the incentives to behave differently. In many rural parts of Ghana, public training providers are usually so geographically dispersed that there is simply no competition among similar providers. This is very much the case for the Integrated Community Centers for Employable Skills and the Youth Leadership and Skills Training Centers which are predominantly rural.

By far the largest provider of skills training in Ghana, the private informal apprenticeship system, remains largely uncompetitive – on account on the uncompetitive nature of most MSEs in Ghana. Moreover, though there have been numerous attempts to improve the private informal apprenticeship system – since the mid 1990s to date – there have been no systemic improvements, but a series of time-bound, geographically or sub-sector limited projects.

We have also noted the many examples of the inequalities of TVET provision. Ghana’s TVET system tends to exclude the poor. The share of individuals having followed a TVET course rises with families’ level of wealth. For example, the share of individuals from the highest income quintile having technical or vocational training is seven times that of those from the poorest quintile. The mainly urban location of formal training institutions makes for difficult access by rural communities that tend to be poorer. The inequalities inherent in access to (and the learning outcomes of) basic education in Ghana result, as we suggest above, in inequalities of access into formal (and informal) TVET. The three northern regions suffer the most disadvantages; both in terms of educational inequalities at the basic education level, and geographical inequalities in the widespread distribution of skill training opportunities.
Chapter 4: TVET Coordination

Summary

Ghana’s TVET system is so fragmented that not even the government has the full picture. Following two failed government attempts to coordinate the system, a 2006 government initiative established the Council for TVET (COTVET). Although it has been slow to take off, it is hoped that COTVET will help to coordinate:

The supply of training, aligning it with the demands of the economy. The set up of the NTVETQC and the TQAC are positive steps towards better coordination of the supply side of TVET, while the set up of the ITAC and the SDF are useful steps towards better demand side coordination.

Government strategy and ministry programs. Although the training components contained in the major state economic policy exercises are not yet being coordinated with COTVET, such coordination is needed to promote effective national policy and avoid wasteful duplications. Very significant resources are still being spent by the government on TVET activities that are not coordinated with COTVET, and largely operate independently of the main TVET-delivering MDAs. A recent example is the Local Enterprise and Skills Development Program (LESDEP), which has been granted a budget of GHc96m for 2011/12 (about US$50m); this is more than the entire skills development fund budget ($45m).

The legal, certification and qualification frameworks. COTVET’s National TVET Qualifications Committee is starting coordinating the certification and qualification processes that has previously been handled by a number of agencies.

Donor and NGO support. Historically, external donors and NGOs provide considerable support to TVET in Ghana but generally without coordination, thereby missing obvious opportunities for synergies and cross-learning, and sometimes duplicating efforts. Since 2010, several development partners have been aligning their support behind COTVET, but more effort is needed. Fragmentation of NGO support largely remains.

1.1. Introduction

One of the most serious non-market imperfections regarding TVET is that of coordination of providers, qualifications, strategies, polices, legislation, and development partner support. This chapter examines various coordination issues related to TVET and the new education reform. TVET is delivered by a plethora of entities - some eight ministries, private for-profit and nonprofit institutes, NGOs and through informal apprenticeships. According to the Japanese International Cooperation Agency, the TVET system in Ghana is so fragmented and shared among so many different ministries and state agencies that ‘not even the government have a full-clear picture of the situation’ (GoJ, 2004: 3). Interviews conducted as part of this report, very much suggests that there are still major information gaps as of May 2012 which means that COTVET still does not have a complete understanding of the situation.

Earlier governments have attempted – and ultimately failed - to coordinate Ghana’s TVET sector: (i) through the establishment of the National Vocational Training Institute (NVTI) in 1970, initially mandated to coordinate all aspects of vocational training nationwide (GoG, 1970); and (ii) following

51 See Chapter 3.
the NVTI’s failure at coordination, through the National Coordinating Committee for Technical and Vocational Education and Training (NACVET), similarly created to coordinate a national TVET system in 1990, including both formal and informal providers. NACVET also ultimately failed in its coordination function. NVTI’s failure as a coordination body can largely be attributed to it being diverted from coordination functions to become another training provider, through its network of centers. NACVET largely failed due to inter-ministerial rivalries between the ministries of education and employment and the fact that it was never established by an Act of Parliament, formalizing its mandate. Also, NACVET had little capacity and almost no technical and managerial experience in the area of vocational training. NACVET effectively ended its days as an entity that set secretarial examinations and examinations for farm institutes.

Following the recommendations of the 2002 Anamuah-Mensah report and the 2004 White Paper, in 2006 the government set up a technical committee to facilitate the establishment of COTVET. Parliament passed the bill on July 27, 2006, leading to the COTVET Act (718) in September that year. COTVET is mandated to develop strategic policies for Ghana’s TVET sector, covering the broad spectrum of pre-tertiary and tertiary education, formal and informal (GoG, 2006e).

COTVET’s governance has not got off to a good start. It took a year from the COTVET Act to set up the first 15-member COTVET Board (which became effective in November 2007). Once set up, it was hindered in its activities during its entire first year by the absence of a secretariat. In addition to the delays in setting this up, it took a full year for the board to appoint an executive director, who started work in November 2008. By this time, the change in political party in January 2009 led to the dissolution of the 1st COTVET Board. The 2nd COTVET Board was then active from mid-2009 for two years and then was itself dissolved in July 2011 by the Minister of Education. It then took about six months to set up the 3rd Board (established January 2012), which ended up having an acting Board Chairperson from the MOE instead of a Board Chair from the private sector (since the private sector nominee apparently declined to be chairperson on the day they were meant to be inaugurated).

This instability of the COTVET Board has not helped COTVET to establish itself on firm footings, and as of May 2012, the Secretariat still required technical capacity building to improve in-house expertise on TVET.

What is more, COTVET remains under the MOE and is still regarded by many as an MOE (not cross ministerial, let alone extra-ministerial) entity. The current situation (May 2012) is complicated further due to tensions between COTVET and NVTI regarding the mandate of the latter being superseded by the former. Two areas of contention (see below) relate to: a) apprenticeship coordination, and b) certification.

In spite of these challenges, COTVET has still managed to set up five standing committees and other sub committees. The Standing Committees are the National TVET Qualifications Committee (NTVETQC); the Industrial and Training Advisory Committee (ITAC); the Training Quality Assurance Committee (TQAC); the National Apprenticeship Committee (NAC); and the Skills Development Fund (SDF) Committee.

There are many different dimensions to the coordination challenge that COTVET must deal with. These include, but are not necessarily limited to:

- The coordination of TVET supply to labor market demands for skills;
- Government strategies and development plans that relate to TVET in whole or in part, as well as development partner support;

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52 Senior official working with COTVET, personal communication 03.05.12. The MoESW is one ministry that is noted not to be happy with the placement of COTVET under the MOE.
TVET qualifications and quality assurance;
• The coordination of the TVET-related committees which exist under a number of ministries, with the new COTVET board and subcommittees;
• The legal framework for TVET.

The first three of these dimensions of the coordination challenge are dealt with in greater detail below, given their strategic importance for the sector.

1.2. The Coordination of TVET Supply and Demand

Supply

The COTVET Act mandates COTVET to coordinate and formulate policies for both pre-tertiary and tertiary TVET. However, the tertiary institutions (universities and polytechnics) have their own Act which gives authority to their respective councils/boards to direct their policies. There are some in COTVET who would like to see a change to the COTVET Act so that COTVET focuses on pre-tertiary TVET.53

COTVET has made some initial steps towards coordination of the supply side of TVET, for example the set up of the National TVET Qualifications Committee (NTVETQC) and the Training Quality Assurance Committee (TQAC). The former is working towards coordinating qualifications (see below), while the latter will be responsible for accrediting providers.

However, there is still not much coordination or even engagement between public TVET providers; many complain that they never have a chance to engage with their colleagues in other departments in the same ministry (e.g. ICCES, Social Welfare, NVTI under MoESW), let alone with colleagues in other ministries (interviews, May 2012).

Meanwhile, COTVET’s National Apprenticeship Committee and its National Apprenticeship Program are attempting to engage with informal apprenticeship. However, instead of developing policies that would impact on the wider informal apprenticeship system, they have developed a small (1% of youth currently in informal apprenticeships), state-funded and short (1 year) “national” apprenticeship program (see Annex B.9 for a discussion).

Demand

According to one senior official working with COTVET, as of May 2012 ‘industry has not been involved in a dynamic way’ with COTVET’s operations.54 COTVET’s Industrial Training Advisory Committee (ITAC) and its subcommittees are responsible for the development of national occupational standards, which are meant to link the demand for skills on behalf of employers with those skills effectively delivered by providers.

Adapting TVET supply to labor market demand will require a responsive feedback mechanism that communicates information on the evolving nature of the skills demanded by the economy to training providers. Given that information is so scarce in Ghana, especially on the demand-side, the establishment of a TVET – labor market information system (LMIS) must be the first step toward effectively coordinating supply and demand.

The TVET–LMIS has to start collecting more demand-side data related to TVET (market studies, future skill need studies, tracers); as of May 2012, TVET indicators and data are all supply-side

53 Senior government official, personal communication (02.05.12).
54 Senior government official, personal communication (03.05.12).
focused – number of schools/VTIs, number of staff, number of students, expenditure on TVE and so on.

At the level of the training provider, there is a very weak supply-demand relationship. The lack of autonomy to be able to set up new courses, the general lack of any business representatives on institution boards, the almost complete absence of real tracer studies (let alone impact studies with control groups), as well as other government regulations and lack of incentives contribute to this supply-demand failure (see chapter 3 for more discussion).

1.3. Coordination of Government Strategies, Plans and Development Partner Support

Government Strategies and Plans

At the policy level there is currently insufficient coordination which has led to the development of parallel agendas, plans, programs and committees.

The fragmentation of TVET provision (chapters 3 & 4) is mirrored by a fragmentation of TVET policies and strategies among – and within - the main TVET-delivering ministries. So, for example, the NVTI (under MoESW) has a strategy, OIC (MoESW) has a strategy, ICCES (MoESW) has never really had a strategy, and meanwhile the MoESW itself does not have an overall TVET strategy. The MoE TTIs and their secondary technical schools are linked to the Education Strategic Plan. Meanwhile, COTVET is busy setting up new committees and frameworks. What is more, there is still some confusion about the mandates of various entities, and some existing legislation is contradictory. A case in point is the state of affairs between the NVTI and COTVET when it comes to informal apprenticeship. On the one hand, the NVTI has its National Apprenticeship Council which is backed by Legislative Instrument (LI), Apprentice Regulation LI 1151 of 1978, to ‘oversee all matters concerning apprenticeship in the country’ (www.nvtighana.org, 21.05.12). On the other hand, in April 2010, the COTVET Board set up a National Apprenticeship Committee ‘to formulate and supervise the implementation of a national apprenticeship policy’ (COTVET, 2010: 9). COTVET’s National Apprenticeship Strategy (COTVET, 2010) makes no reference to the NVTI National Apprenticeship Council.

We have already noted the dual track policy making process of the NER and the ESP (chapter 1), as well as the fragmentation of policies and strategies of TVET-providing ministries, but we should also highlight that there exist a number of other strategies, plans, programs or policies that relate, in whole or in part, to TVET. Currently is little attention given to the obvious synergies and inter-linkages that exist between these agendas.

For example, the NDPC (2010a) Medium-Term National Development Policy Framework 2010-13 outlines the general strategies proposed for TVET, without going in to any detail. It simply states that, regarding TVET, policy interventions include: ‘the construction and rehabilitation/upgrading of facilities in all public Technical and Vocational Institutes in each District across the country; repositioning TVET in education and human resource development; and strengthening linkages with industry... re-organiz[ing] and expan[ding] the current national apprenticeship program; providing opportunities for trainers in Technical and Vocational Institutes to undertake further studies in pedagogy; developing competency-based curriculum for TVET; strengthening career guidance and

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55 These include (or have included), for example: the NDPC (2008) medium-long term national development plan and then the NDPC (2010a) Medium-Term National Development Policy Framework, the National Employment Strategy, the skills component of the National Trade Sector Support Program (2006-2010), the Private Sector Development Strategy II, the National Youth Policy, and the Ghana Industrial Policy 2010.
counseling services; supporting TVET institutions in generating funds internally; and exploring other funding sources to support other TVET institutions not under the Ministry of Education’ (NDPC, 2010a: 76-77). It also notes that a key policy measure is to ‘empower... COTVET to provide a more skills competency-based technical and vocational education’ (NDPC, 2010b: 20).

Very significant resources are still being spent by the government on TVET activities that are not coordinated with COTVET, and largely operate independently of the main TVET-delivering ministries, departments and agencies. The 2003-2005 Skills Training and Entrepreneurship Program (STEP) was an example of such a program. From the STEP, the National Youth Employment Program (NYEP)56 emerged which contained a module related to TVET; in 2007 the NYEP had a budget that was five times the total budget of the Ministry of Employment and Social Welfare (World Bank, 2010b). A more recent case is the Local Enterprise and Skills Development Program (LESDEP) (Annex B.10), which has been granted a budget of GHC96m for 2011/12 (about US$50m); this is more than the entire skills development fund budget ($45m) (World Bank, 2011a) (chapter 5).

Development Partner Support

Development Partner (DP) and NGO support to TVET in Ghana has traditionally been highly fragmented. For the most part DP and NGO support has consisted of a series of specific projects without any overall framework for coordination. While, in many cases, this support has improved the quality in individual training institutions, it has not had an impact on the national TVET system – partly because that support has targeted individual beneficiary institutions and also because TVET is spread across numerous different ministries. The usual scenario saw DPs set up bilateral partnerships with different ministries (most often MoE), e.g.:

- The Vocational Skills and Informal Sector support project (VSP) (1995-2001) saw the World Bank partner with the MOE (World Bank, 1995);
- The VOTEC Resource Centres (1999-mid-2000s) saw the Netherlands partner with the MOE;
- The NVTI Centres Support Project (1996-1998) saw DFID partner with NVTI (MoESW);

Since 2010, there have been positive signs that DPs are starting to align behind COTVET. Indeed, the majority of the new programs have COTVET as their key partner, including:

- The World Bank’s Ghana Skills and Technology Development Project (World Bank, 2011a);
- Danida’s Enterprise Development Program (Danida, 2009);
- The German Government through GIZ (GIZ, 2011) and KfW;
- The African Development Bank (AfDB).57

Meanwhile, NGOs continue to provide uncoordinated support to TVET mainly through bilateral relationships between an individual NGO and an individual school or training center.

56 The NYEP aims to promote job creation for young people (18 to 35 year). Launched in October 2006, the program was designed around different modules offering various work and training opportunities (see World Bank, 2010b). In 2012, the NYEP was transformed into a permanent agency called the Ghana Youth Employment and Entrepreneurial Development Agency (GYEEADA).

57 The AfDB also has a bilateral project agreement with the Ministry of Women and Children’s Affairs, the Gender Responsive Skills and Community Development Project. http://www.afdb.org/en/projects-and-operations/project-portfolio/project/p-gh-id0-003/
1.4. TVET Quality Assurance and Qualifications

Quality Assurance

Historically there has been no coordinated approach regarding quality assurance for either formal or informal TVET providers. The recently created (2010/11) COTVET Training Quality Assurance Committee (TQAC) is responsible for ensuring that training providers and qualification awarding agencies maintain satisfactory standards in the delivery of training and the award of qualifications. The development of regulations and criteria for the registration and accreditation of TVET Providers has been completed by the TQAC. These have been submitted to the Ministry of Justice and Attorney General's Department for a Legislative Instrument (LI). In the mean time, the COTVET Board has granted the committee the authority to issue provisional accreditation to training providers (COTVET, 2012a). In effect, what this means is that before a formal TVET provider can offer any training, it will be required to meet certain minimum standards. What is not clear is whether the quality assurance function of TQAC will extend to the massive informal apprenticeship system.

Qualifications

Prior to the arrival of COTVET, Ghana had developed a number of qualification awarding organizations – which as of May 2012 still existed – and include, among others: The Ghana Education Service (GES) of the MoE (which conducts the Technical and Commercial Examinations); the NVTI (which conducts Proficiency, Grade II, Grade I, and the National Craftsmen Certificate Examination); The National Board for Professional and Technical Examinations (NABPTEX) (which conducts the Higher National Diploma examinations in collaboration with the polytechnics) (CPTC, 2006: 51-52).

In 2010/11, COTVET set up a National TVET Qualifications Committee (NTVETQC) which is responsible for coordinating the certification and qualifications offered. The NTVETQC has designed a National TVET qualifications framework (NTVETQF) (Table 4.1.) which will ultimately replace other existing frameworks (such as the one NVTI follows). COTVET has applied for a legislative instrument which, when agreed, will mean that TVET providers in Ghana will not be able to offer an accredited/recognized course without the approval of COTVET. The documents submitted for a legislative instrument are the draft policies and regulations for registration and accreditation of awarding bodies; established policies, criteria, regulation and procedures for the operation of the national TVET qualifications framework; and regulations for the registration of awards on the NTVETQF (COTVET, 2012a).

Table 4.1. National TVET Qualifications Framework

<table>
<thead>
<tr>
<th>Levels</th>
<th>Qualification</th>
<th>Required Entry Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Proficiency I</td>
<td>From no-formal-education to some basic education but less than BECE.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Proficiency II</td>
<td>Proficiency I</td>
</tr>
<tr>
<td>Level 3</td>
<td>Certificate I</td>
<td>Basic Education Certificate of Education (BECE) or Proficiency II</td>
</tr>
<tr>
<td>Level 4</td>
<td>Certificate II</td>
<td>(SSCE) or Certificate I</td>
</tr>
<tr>
<td>Level 5</td>
<td>Diploma</td>
<td>(SSCE) or Certificate II</td>
</tr>
<tr>
<td>Level 6</td>
<td>Higher National Diploma</td>
<td>(SSCE) or Diploma</td>
</tr>
<tr>
<td>Level 7</td>
<td>B Tech</td>
<td>(SSCE) or HND</td>
</tr>
</tbody>
</table>

Source: COTVET (2012a, b)
Despite the fact that COTVET is now mandated by its law to set up a unified TVET qualifications structure, as noted above there are still other TVET qualifications being offered in several ministries, departments and agencies (MDAs) who are drawing on earlier laws to justify their position. In the words of one senior government official, ‘some organizations are trying to hang on to functions that should now be performed by COTVET’ (personal communication, 02.05.12); one such organization is the NVTI and it is clearly necessary to review existing laws to clearly spell out the new mandates of organizations.

In the case of NVTI, it makes complete sense to separate their training function from their awarding function, to remove the conflict of interest inherent when such an organization both trains and provides its own certification. However, from NVTI’s perspective the NVTI testing department brings in significant revenue to the NVTI organization which would presumably be lost.

Indeed, there is meant to be a phase in period during which time both the old (e.g. NVTI, GES) certificates will be offered (to those students already on those programs) in addition to the new certificates (offered to those starting on the new programs). However, there currently exists significant confusion among the public TVET providers (not so much the MoE TTIs) about how and when this phase in is meant to take place.

1.5. Concluding Comments

This review of TVET coordination in Ghana illustrates several of the market and non-market imperfections outlined in the conceptual framework elaborated earlier (chapter 1).

The training market in Ghana is highly fragmented; the public system is spread over multiple ministries, while the private system - which made up of the massive informal apprenticeship system as well as formal private providers – are not incentivized to coordinate.

Ghana has a history of failed attempts to coordinate TVET, dating back to the 1970s with the establishment of the NVTI, initially mandated to coordinate all aspects of vocational training nationwide, and second (in the 1990s) with the failed National Coordinating Committee for Technical and Vocational Education and Training (NACVET). In 2006, a new TVET coordinating body was set up, the Council for TVET (COTVET), which was backed by an Act of Parliament. However, COTVET remains under the MOE and is still regarded by many as an MOE (not cross ministerial, let alone extra-ministerial) entity. It does not yet have sufficient power (or say in how the majority of all public financial resources are allocated to TVET) to be able to significantly influence TVET nationwide. However, it is making some moves in the right direction with the establishment of a competitive skills development fund, a National TVET Qualifications Committee (NTVETQC), a Training Quality Assurance Committee (TQAC), and with plans to draft up a national skills strategy.

At the strategy and policy level there is currently insufficient coordination which has led to the development of parallel agendas, plans, programs and committees.

Development Partner (DP) and NGO support to TVET in Ghana has traditionally been highly fragmented. For the most part DP and NGO support has consisted of a series of specific projects without any overall framework for coordination. Since 2010, there have been positive signs that DPs are starting to align behind COTVET. Indeed, the majority of the new programs have COTVET as their key partner.
Chapter 5: TVET Financing

Summary

For the last decade (since 2002), key policy documents have recommended that more diversified and sustainable financing was identified at the systemic level. The majority of these recommendations have not yet been implemented.

The only real recommendation that has been acted on since 2008 was the move to establish a skills development fund (SDF), which has now been set up with funding from the World Bank, DANIDA (and to a lesser extent GETFund). The fund will only be sustainable, however, if financed by a levy on businesses which is nowhere in sight. Small businesses, and the government, who will also benefit from skilled labor, should also be required to contribute. Donors are encouraged to channel their assistance through the fund, and bid for the implementation of TVET projects, under the coordination of COTVET. The fund must be led by Ghana rather than donors and should benefit from considerable inputs from the business community; both financial inputs from business (in the form of some kind of levy) and inputs from business regarding decisions on where funds are allocated. Currently, there is heavy reliance on donor funding for the SDF which does not testify well to the governments buy in. The SDF, being part of COTVET, is technically under the Ministry of Education, but has so far resisted government and political pressure to bias finance allocations.

Meanwhile, data on the current state of TVET financing is seriously scarce. The MoE runs two main TVET networks: Technical Training Institutes and Secondary Technical Schools. The Technical Training Institutes, which account for about 70% of total public TVET enrollment, receive about one percent of the MoE budget. The budget for secondary technical schools, however, is unknown, since it is not disaggregated from the budget for general senior high schools. TTIs charge training fees and some engage in income generating activities, but the government grant is still their largest source of income. The MoE provides TTI unit cost information, but it is highly imprecise since it fails to take into account such factors as revenue from fees and income generating activities, and the depreciation of equipment.

Generally speaking, TVET institutes operate with little oversight or support from the state, which collects very little information on their finances or unit costs. Although exact data are therefore often unavailable, the most common funding modalities of individual TVET institutes are known, and vary according to their ownership:

- Public TVET institutes receive government funding to pay (most) staff salaries (in some public TVET institutes, like ICCES, the responsibility to pay for some staff still falls on the individual center) and some public providers also receive grants to cover administrative costs. Training fees paid by students and their families account for a sizeable share of income for the public providers;
- Private institutes function almost entirely on students’ fees, which do not adequately cover the cost of equipment and other educational supplies and activities. Indeed, most of the money collected goes to paying instructors’ salaries, with typically only one to three percent of institutes’ budgets left for training materials. Many institutes therefore engage in income generation activities, such as farming, sewing, or door and window production. Many institutes also seek NGO support; with only a couple of exceptions, they do so without proper planning or coordination;
- Informal apprenticeship costs are covered by trainees and their families; and
- Company in-house training is also provided to new recruits, employers bearing the costs.
The TVET public financing model in Ghana is ineffective, because it is based solely on inputs (the numbers of students and staff) with little consideration for outputs (the share of trainees who graduate, the share who find jobs, and so on). The public financing approach and (lack of) incentives used to support TVET in Ghana help to create and perpetuate a supply driven, low quality skills system. Public financing incentives are lacking for training providers to deliver better services, for employees to improve their skills and employability, and for employers to train more. Where public funding has been used to support private informal apprenticeships it often does so in a way that risks substituting for private financing, and where it has been used to support short duration skills training, it is often done so in an inefficient way.

The poor have considerably lower access to skills training in Ghana, be it institute-based or enterprise-based: fees and other contributions by private households constitute obstacles. Much public spending on TVET is not targeted at the poor but is captured by those who are less in need, thus widening inequalities.

5.1. Introduction

This chapter examines a number of key TVET funding issues. Firstly it will examine the suggestions that have been put forward – for over 10 years - regarding the identification of sustainable sources of systemic TVET funding. Secondly it will summarize the main financing approaches currently used by TVET providers (public and private, institute and enterprise-based). Thirdly it will highlight some general cross-cutting issues concerning TVET financing. Some TVET funding recommendations are presented in Chapter 6.

5.2. Systemic TVET Financing

At the systemic level, the identification of sustainable sources of funding for TVET requires urgent attention. Over the decade 2002-2012, numerous proposals were made about how the reform of the TVET sector might be sustainably financed; while no national financing framework has been agreed upon, there has been progress in the setting up of a Skills Development Fund (see below).

The proposals made during the 2008 Education Sector Annual Review (GoG, 2008b) and in the 2007 report of the TVET subcommittee of the NERIC (GoG, 2007d) were very similar to those made in the latest August 2004 version of the TVET policy framework (GoG, 2004b: Chapter 12). This in turn overlapped with the TVET financing recommendations formulated in the 2002 Anamah-Mensah Report (GoG, 2002). Table 5.1 summarizes and compares the respective recommendations over the period 2002-2008.

However, some of the core financing suggestions made in these documents were rejected by the Ministry of Finance in 2004 (GoG, 2004b: Annex). The rejected suggestions include: (i) that the government increase the annual budgetary TVET allocation; (ii) that the Ghana Education Trust Fund (GETFund) be used to finance TVET; (iii) that a percentage of district assemblies’ common funds be allocated to supplement district level TVET activities; and (iv) the establishment of a skills development fund (based on industry levies) and a Ghana patrons’ fund. Having been rejected in 2004, it is not clear why the same recommendations were made again in 2007 and 2008 without first initiating a dialogue with the Ministry of Finance.

Although no progress was made in identifying sustainable sources of financing for TVET over the 2004-08 period, a process was initiated in mid 2008 and again in January 2009 to establish a skills development fund (set up initially by donors). Two Danida-funded consultants initiated a dialogue with key TVET stakeholders, including industry representatives. The initial intention, agreed on by
COTVET, was for development partners (the World Bank and Danida) to finance the creation of the SDF mechanism and then provide the initial capital (the World Bank in 2009, and Danida in 2010). The intention being that a levy on industry could be instated to recapitalize the SDF on a sustainable basis. This is an ongoing process, discussed in greater detail below.

Apart from the establishment of the SDF (which is almost entirely donor-financed, without any agreement on an industry levy to finance it), in the decade since the 2002 Anamah Mensah Report, there has been little overall progress. In the period 2009-2012, there have not really been any significant new suggestions made on TVET financing approaches.

### Table 5.1: TVET Funding Recommendations, 2002-08

<table>
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<tr>
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<tbody>
<tr>
<td><strong>Establish a Skills Development Fund (SDF)</strong></td>
<td>With the support of agencies such as AGI, GEA, TUC, the Chamber of Mines and the Chamber of Commerce and Industry</td>
<td>With contributions from member industries and businesses (1% of payroll), labor unions and trade associations (0.5% of their membership fees)</td>
<td>YES</td>
</tr>
<tr>
<td>WITH the support of agencies such as AGI, GEA, TUC, the Chamber of Mines and the Chamber of Commerce and Industry</td>
<td>With contributions from member industries and businesses (1% of payroll), labor unions and trade associations (0.5% of their membership fees)</td>
<td>YES</td>
<td>With a payroll tax of 1% for both public and private industries, and contributions from trade unions of 0.5% of their annual membership fees</td>
</tr>
<tr>
<td><strong>Allocate/increase the Ghana Education Trust Fund’s contribution to TVET</strong></td>
<td>10% for the rehabilitation of existing infrastructure and the establishment of new institutes</td>
<td>‘A categorical percentage’</td>
<td>‘A specific percentage’</td>
</tr>
<tr>
<td></td>
<td>‘A categorical percentage’</td>
<td>‘A specific percentage’</td>
<td>Increase to 10% of proceeds</td>
</tr>
<tr>
<td><strong>Allocate share of District Assemblies Common Fund (DACF) to TVET</strong></td>
<td>Minimum 5%</td>
<td>‘A categorical percentage’</td>
<td>‘A specific percentage’</td>
</tr>
<tr>
<td></td>
<td>Minimum 5%</td>
<td>‘A categorical percentage’</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Increase Ministries, Departments and Agencies’ budget funding of TVET</strong></td>
<td>‘Considerably’</td>
<td>YES</td>
<td>‘Progressively’</td>
</tr>
<tr>
<td></td>
<td>‘Considerably’</td>
<td>YES</td>
<td>‘Progressively’</td>
</tr>
<tr>
<td></td>
<td>MoE (7.5%, for TTIs), MoESW (20%, for NTVI), MoFA (5%, for agricultural VTIs), create a budget line for national apprenticeships</td>
<td>‘Progressively’</td>
<td></td>
</tr>
<tr>
<td><strong>Mobilize resources for TVET from Development Partners</strong></td>
<td>From donors</td>
<td>From NGOs and external agencies</td>
<td>From donors</td>
</tr>
<tr>
<td></td>
<td>‘And create endowment funds’</td>
<td>‘From custom jobs or production units’</td>
<td>‘And through production units’</td>
</tr>
</tbody>
</table>
Table 5.1 Continued

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promote private sector donation appeals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For equipment and consumables</td>
<td>For resources</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Increase household contributions to training costs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For part of consumables and other expenditures</td>
<td>YES</td>
<td>Not mentioned, but implied</td>
<td>Not mentioned, but implied</td>
</tr>
<tr>
<td><strong>Establish a Ghana TVET Patrons’ Fund</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>To mobilize foreign revenues</td>
<td>To obtain revenues from remittances, foreign institutions and philanthropists</td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Student loan scheme</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>Loans to students to be funded with the Ghana TVET Patrons’ Fund</td>
<td>Create a student loan scheme for pretertiary TVET</td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Loans for private TVET institutes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td>Give registered and accredited private institutes access to soft loans</td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Public subsidies for private institutes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td>Subsidize registered and accredited private institutes through a 50% salary grant</td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Public subsidies for private apprenticeship training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend: AGI = Association of Ghana Industries; GEA = Ghana Employers Association; TUC = Trade Union Congress

**Skills Development Fund**

The World Bank and Danida have supported the establishment of a Skills Development Fund (SDF) which was launched in September 2010.

**SDF Resource Mobilization**

In the long term, a Ghanaian SDF will only be sustainable if financed by a levy on industry and enterprises in general, as in many sub-Saharan African countries and elsewhere (Johanson and Adams, 2004). The levy would take the form of a payroll tax for both public and private sector entities.
For the levy to be successful in Ghana, employers must be incentivized to participate, through tax credits for instance. In addition, the levy should not be limited to industries (Ahorbo, 2009b), but also include small and microenterprises and the government. As the largest formal employer, government contributions would be significant. For industry to be willing to contribute, the fund must be seen to be independent of the government and be led by industry and employer groups. COTVET is making efforts to get a law for contributions by employers, employees and other areas for sustainable technical and vocational skills development funding in the country (COTVET, 2012a).

In the short term, until legislation could be passed related to an industry levy, the World Bank and Danida agreed to provide initial seed funds. The World Bank, at the request of the government, restructured its Education Sector Project to make funds available in 2009. Danida allocated approximately €10 million for the SDF through the Support to Private Sector Development Program (2010-2014) (Danida, 2009). Significant support to the SDF was also included in the World Bank (IDA) Ghana Skills and Technology Development Project (2011-2015) (World Bank, 2011a). Lastly, the Government of Ghana contributed via GETFund.

Back in late 2008, several COTVET board members voiced concerns about the sustainability of a SDF that was set up by donors. As a result, COTVET and development partners have been working closely to ensure that the fund is country-led (by COTVET). However, as of May 2012 there remains some concern about the inadequacy of GoG contributions to SDF. One senior government official commented that the SDF ‘to a large extent dependent on donor funds’ (personal communication 02.05.12); this is clearly seen in fact in the contributions of each of the actors: World Bank ($35m); Danida ($10m); and, Government of Ghana (zero). Meanwhile, it is also clear that the government is still allocating large sums of money outside of the SDF mechanism; for example none of the funding for LESDEP (Annex B.10) in 2011/12 ($50m) went through the SDF.

Now that the SDF has been established, it is starting to be used as a mechanism to harmonize and coordinate development partner funding; several donors (World Bank, Danida) are channeling their funds directly into the SDF. Several others are actively engaging with COTVET and the SDF management to see how they can channel funds through the SDF; the German KfW is exploring a training voucher system for the informal sector, while the ADB want the SDF to come up with a competitive grant scheme to encourage training providers to establish production units (personal communication, SDF manager 03.05.12).

The SDF board and COTVET are responsible for ensuring that donor funded activities (especially those outside the SDF) complement, and do not duplicate, each other. This is in line with the Paris declaration on aid effectiveness, as well as the Accra Agenda for Action, and the Busan Declaration.³⁸

SDF Resource Allocation

Back in 2008, before the SDF was established, employers and industry groups voiced concern about how they would access funding from the SDF; they appear to be distrustful of the government in this respect. This is further reason for industry and employers’ groups to be centrally

³⁸ The Accra Agenda for Action, adopted on September 4, 2008, reflects the international commitment to support the reforms needed to accelerate the effective use of development assistance and will help to ensure the achievement of the MDGs by 2015. The agenda is the result of an extensive process of consultation and negotiations among countries and development partners, focusing the aid effectiveness agenda on the main technical, institutional, and political challenges to the full implementation of the Paris principles. At the Busan aid effectiveness meeting at the end of December 2011, helped to bring new actors into the ‘tent’ (emerging donors, private sector, civil society, fragile states). The Busan Outcome Document reaffirmed the Paris principles, but did not agree on a new system to measure progress. a
involved in the management of the fund, and for the SDF to have a control structure that is independent from the government.

The SDF established by COTVET in 2010 had three funding windows aimed at technical and vocational skills development (COTVET, 2009). Window 1 focuses on technical and vocational skills for formal sector medium and large enterprises. Window 2 focuses on skills for MSEs in the informal sector. Window 3 focuses on innovative training approaches. In addition, for the Ghana Skills and Technology Development Project (GSTDP), the SDF opened a fourth window to support technology upgrading by enterprises and linkages between industry and technology providers (World Bank, 2011a).

The SDF issued its first call for proposals in September 2011 and 483 proposals were received. In mid May 2012, the proposals were still being reviewed. Analyses of the responses received are detailed in Table 5.2. below.

<table>
<thead>
<tr>
<th>Funding Window</th>
<th>Count</th>
<th>Percentage</th>
<th>Amount Requested (GHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>44</td>
<td>9</td>
<td>14,044,008.08</td>
</tr>
<tr>
<td>Informal</td>
<td>158</td>
<td>33</td>
<td>31,741,756.00</td>
</tr>
<tr>
<td>Training Providers</td>
<td>216</td>
<td>45</td>
<td>151,572,924.12</td>
</tr>
<tr>
<td>Technology</td>
<td>65</td>
<td>13</td>
<td>57,728,424.78</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100</td>
<td>255,087,133.80</td>
</tr>
</tbody>
</table>

Source: COTVET (2012a)

It is apparent that greater communication is required to get applicants to better understand the focus and objectives of the SDF. For example, a large proportion of the proposals received under window 3 (training innovations) were requests from training providers to finance new hostels, classrooms, workshops and so on. After the initial screening, only 16 of the 216 applications got to the second round (personal communication, SDF manager 03.05.12). The second call for proposals is planned for around July 2012.

**Financing COTVET itself**

A related concern is that of identifying broader financing for COTVET and its cross-cutting activities. COTVET is currently financed through World Bank and Danida support as well as GoG funding. GoG budgetary support is regarded as inadequate and COTVET has had to rely more on DPs to fund its programs; there is the concern that the cessation of support from the DPs would curtail COTVET’s programs (COTVET, 2012a). This approach is obviously not ideal given that COTVET as an entity represents multiple institutions, some of which are extra-ministerial bodies. Being both an official dependency of the MoE and funded by the MoE will likely contribute to COTVET being seen as an MoE entity, which was one of the reasons for the failure of COTVET’s predecessor, NACVET. Ideally, a sustainable funding mechanism would be created, including a SDF funded by an industry levy, so that COTVET can have greater autonomy.

**5.3. TVET Financing Modalities**

**Financing School-Based TVE**

The MoE runs two types of TVE programs, both school-based: (i) the first, which is usually the only one reported on, is the technical training institutes (TTIs) program (under the TVE division of the Ghana Education Service - GES); (ii) the second is the secondary technical schools program, where
senior high schools offer students a main focus on technical and/or vocational subjects, including building, metalwork, auto-mechanics, electricity, textiles, art and other subjects.

Between 2003 and 2010 budget expenditure for the public TTIs as a percentage of the total resource envelope for education under the MoE has remained about 1% (GoG, 2008a; 2011a).

TTIs receive a government grant that covers: staff personnel emoluments, administrative activities, service activities and investment activities. Personnel emoluments are paid directly to staff. Training fees, that are standardized nationwide, are charged and retained by individual TTIs. Some TTIs also engage in income generating activities (see below) and receive a limited amount of funding from NGOs on an ad hoc basis. For example, at the Accra Technical Training Centre (ATTC), the government grant accounts for approximately 70 percent of the centre’s income (See Box 5.1). For TTIs that do not engage in income generating activities, the government grant may account for up to 90 percent of income.

Box 5.1: Approximate Breakdown of ATTC Income

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Grant</td>
<td>70%</td>
</tr>
<tr>
<td>ATTC Training Fees</td>
<td>10%</td>
</tr>
<tr>
<td>Income generating activities</td>
<td>20%</td>
</tr>
<tr>
<td>(Internally generated funds -</td>
<td></td>
</tr>
<tr>
<td>IGF)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: IGF proceeds are approximately 5% for short courses for industry, 10% for custom projects and 5% for the hiring of premises.

Source: former and current ATTC principals, November 19 and April 15, 2008.

Resource Allocation

Funds are transferred from the GES headquarters to TTIs through the district directorates. The current financing mechanism means that schools with reduced enrollment obtain less funds.

No official mechanism exists to offer financial incentives to better performing departments or staff. Some TTIs like the ATTC do however offer ad hoc incentives to better performing personnel.

Unit costs are routinely quoted in the MoE Preliminary Education Sector Performance Reports. For example, the 2011 Preliminary Education Sector Performance Report (GoG, 2011a) notes that the recurrent unit cost for Technical Training Institutes was around 194 Ghana cedis in 2006, increasing to about 650 Ghana cedis in 2009 (See Table 5.3). It is important to note, however, that these figures are subject to serious data limitations (see below).

Table 5.3. Technical Training Institutes’ Actual Unit Costs, 2006-09

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per Capita GH¢</td>
<td>196</td>
<td>172</td>
<td>379</td>
<td>885</td>
</tr>
<tr>
<td>Unit Cost GH¢</td>
<td>194</td>
<td>171</td>
<td>305</td>
<td>650</td>
</tr>
</tbody>
</table>

Source: GoG (2011a)\(^\text{59}\)

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\(^{59}\) The per capita cost is the total expenditure on that level of education divided by public enrolment at that level. The unit cost is the recurrent expenditure divided by public enrolment at that level.
However, these unit costs do not take internally generated funds (IGFs) into account, such as training fees, parent-teacher association fees or the proceeds of other income generating activities. Moreover, they do not account for the recurrent cost associated with the depreciation of the equipment required for training, which can be very expensive, and should be included. The unit costs quoted must therefore be considered in the light of these limitations, until further work enables to calculate them with more precision.

The Financing of Public Vocational Training Institutes (VTIs)

The financing of the different public non-MoE VTIs varies, including for the Community Development Vocational/Technical Institutes, NVTI centers, the ICCES, the OICG, the Social Welfare Centers and the Youth Leadership and Skills Training Institutes (e.g. see Box 5.2. on the financing of ICCES). However, some common threads can be noted, as highlighted below.

Public VTI staff salaries are covered by the government. Many public institutes also receive a grant to cover the costs of administration, service and investment activities (those that don’t include ICCES, the Social Welfare Centers and the Community Development VTIs). At the national level, the NVTI directorate, unlike public VTI directorates, also generates sizeable income from trade-testing fees and the training of master-craftspeople, which account for about 25 percent of the NVTI national budget (Annex B.2).

All public VTIs charge training fees, which are retained by them. The institutes use them without interference from the head or regional offices. Fee structures vary according to the type of institute:

- Community Development Vocational/Technical Institutes’ training fees range from ¢4 per year in Bongo, one of the poorest districts, to ¢180 per year in Madina district, where fee levels are determined by the parent-teacher association and the board of governors;
- Training fees for most NVTI centers range from ¢150 to ¢250 per year, although catering courses can cost up to ¢350 per year. However, the nine NVTIs in the three northern regions only charge ¢15 per year; and
- Training fees at the ICCES are set by individual institutions and depend on the estimated ability of the local community to pay. Annual ICCES fees are about ¢150.

Most public VTIs also engage in some form of income generating activity at the institutional level, to obtain additional income for training and administrative activities. Activities might include vegetable farming, the sewing of uniforms, the operation of canteens, hair salons, the sale of cold water, goat rearing, or contracts to build doors and windows.

Most public VTIs seek additional support from NGOs, but such relationships, when established, are usually ad hoc bilateral arrangements between a given VTI and an NGO, rather than being organized by the directorate. Social Welfare Centers and the OICGs are an exception to this: they have respectively established a partnership with UNESCO to provide tool-kits, and a partnership with a German faith-based organization to undertake an apprenticeship upgrading program.

Box 5.2: ICCES Financing Modalities and Implications

<table>
<thead>
<tr>
<th>Modalities</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICCES centers’ instructors are paid directly by the ICCES head office; individual centers and regional offices have no control over staff payments.</td>
<td>Individual staff often feel more accountable to the ICCES directorate than their centre manager or regional coordinator.</td>
</tr>
</tbody>
</table>
Individual ICCES centers and regional coordinators have no idea of the national ICCES budget; the ICCES directorate is not accountable.

Centers are not told how funds are spent, only that there are never enough. This lack of transparency creates ill will toward the ICCES directorate.

ICCES centers receive nothing from the ICCES directorate or from the central government for training materials, equipment, textbooks or infrastructure (although some district assemblies offer ad hoc support).

Centers do not feel obliged to report on their financial position to the regional or head office since they receive virtually no support (other than the salaries paid direct to staff).

ICCES centers have a high level of financial autonomy; they keep all training fees and internally generated funds, reach bilateral funding agreements with NGOs and district assemblies, and can hire additional teachers (the government covers the salaries of about five instructors per centre; which is insufficient).

There are virtually no financial accountability mechanisms, the ICCES directorate has little data on ICCES centers’ financing and centers are not required to submit financial reports.

No incentives are offered to ICCES staff or centers for better performance, and salaries are lower than for GES instructors.

This saps instructors’ morale, especially as most ICCES centers are in rural locations that instructors find unattractive.

Since approximately 2010, Regional Coordinators have not been given grants to cover administrative and monitoring costs. Instead, they have been told to seek funds from the centers in their regions.

Except where the regional coordinator has managed to secure support from an NGO (as in the case of Ashanti region), it is likely that the work of many regional coordinators has been adversely affected. It is not realistic to expect individual centers to finance the running costs of the regional office.

| Source: Author’s interviews with numerous ICCES staff and personal experience working in (2001-2002), and then with (2003-2012), the ICCES system over the last decade. |

Very few data are available on the financing of public VTIs: unit costs are not calculated and many individual public VTIs do not routinely send financial reports to their regional or head offices.

The Financing of Private VTIs

Perhaps unsurprisingly, private institutes’ main source of income are the school fees collected from students (Ahorbo, 2009a). However, the unpredictability of the fees affects the operation of many private VTIs. Private TVET delivery is comparatively expensive because of the demand for instructors with practical trade experience, making it crucial to find a reliable and sustainable source of financing. Some non-profit private VTIs receive donations from foreign institutions, but these are secondary.

Salaries generally represent over 50 percent of expenditures, reaching 90 percent in some cases (donor-supported private TVET providers spend more on salaries than the school fees collected). Spending on training and learning materials is generally as low as one to three percent of total income.
Generally, private VTIs survive the challenges of low enrollment and high operating costs by passing their operational costs on to their clients in order to turn the savings made into a profit. This is reflected in the low share of income spent on training and learning materials (which students often have to purchase themselves), low salaries and other related costs.

From this analysis, three approaches to the reliable financing of private TVET providers can be inferred:

- **Income generating activities** that relate to the general activities of institutes in their core strength areas; that could serve two good purposes: (i) providing reliable income to the school, and (ii) offering students the opportunity to gain practical experience;
- **Public subsidies**, effectively passing on part of the financial burden to the government, providing institutes with some relief; and
- **Being able to access funds from a skills development fund**, which has a sustainable financing stream with contributions from the government and businesses. As noted above, the current SDF does not have any private sector contributions, though private VTIs are fully able to apply for funds (e.g. window 3 on training innovations is especially relevant to private VTIs).

**Financing Informal Apprenticeship Training**

Informal apprenticeship training costs are borne by apprentices and their families with no input from the government or communities. Unlike pre-employment training, there is no need for a training centre or special tools or equipment. There is no tradition of systemic government support, control or supervision in Ghana to date.60 There is however a history of sustainability. There are often many different types of fees related to informal apprenticeship training:

- In many cases training fees include both commitment and graduation fees, paid at the start and at the end of training;61
- Some master-craftspeople ask for contributions in kind, commonly a crate of minerals (soft drinks) or malt (malt beer), a bottle of spirits, cigarettes or a goat;62 and
- Apprentices usually have to provide certain items before commencing training. For instance, carpentry apprentices usually have to bring some basic tools (hammer, chisel, measuring tape) while dressmaking apprentices need to provide their own machine, scissors and tape.63

On the other hand, master-craftspeople often provide apprentices with a small daily stipend to cover their food, known as chop money (Breyer, 2007; Palmer, 2007a).64

Breyer carried out some detailed work on the costing of informal apprenticeship training in urban areas, mainly in Accra. In 2007, the average commitment fee, usually charged at the start of training, was US$85 (ranging from US$22 to US$336); the average graduation fee, charged at the end of training, was US$93 (ranging from US$11 to US$440). The sum of the different fees (the commitment fee, contributions in kind and the graduation fee), is US$160 on average, ranging from

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60 There have been several projects, such as the Bank-funded Vocational Skills and Informal Sector Support Project (World Bank, 2001), that have attempted to improve the informal apprenticeship system; but these have had little systemic or sustained impact (see Annex B.14 for further discussion).
61 According to Breyer’s urban survey 65 percent of master-craftspeople charged a graduation fee, while 97 percent charged a commitment fee (Breyer, 2007).
62 Breyer’s survey found that 75 percent of small or micro enterprises solicited this type of contribution in kind (Breyer, 2007).
63 Surveys found that 81 percent of apprentices were asked to bring their own set of tools (Breyer, 2007; Palmer, 2007a).
64 In Breyer’s urban survey 75 percent of master-craftspeople paid their apprentices chop money. Palmer found that 52 percent of rural master-craftspeople paid their apprentices chop money on average. However, 75 percent of male apprentices were paid this stipend (in the trade areas of carpentry, masonry and mechanics), compared with only 20 to 25 percent of female apprentices (in dressmaking and hairdressing).
US$22 to US$616. In addition to this, the average cost of a toolbox in 2006 was US$45 (ranging from US$6 to US$224), varying considerably between different trades.

Apprenticeship fees are generally lower in rural areas, and are likely to be lower in urban areas other than Accra. Palmer’s study of rural apprenticeships asked about the total fees paid by apprentices and did not disaggregate the commitment fee and the graduation fee. This study, based on 2005 data for the rural Ashanti region, estimated the average total fee to be US$42, ranging from US$13 to US$173.

There are two current attempts to improve informal apprenticeships: the government-funded National Apprenticeship Program (NAP) (Annex B.9) and the GIZ-funded Ghana Skills Development Initiative (GSDI) (Annex B.14). Neither program is proposing a large outreach; the NAP reaches about 1% of the apprenticeship population per annum, while the GSDI is proposing to reach about 3,000 apprentices over a five-year period.

Financing Formal Enterprise-Based Training

The cost of on-the-job training of employees is fully borne by companies when it is relevant to their work. For example, Anglogold Ashanti estimates that it spent about US$427 to train each formal apprentice in 2006, rising to US$519 per apprentice in 2007. Fan Milk Limited estimated that the unit cost of training a staff member was in the neighborhood of US$265. The Coca Cola Bottling Company estimated the cost of training new employees graduated from TVET institutes to be approximately US$135 (Ahorbo, 2009b).

5.4. Outcomes and Issues

Poor Data Availability

Formal institute-based TVET provision is usually more expensive than general education, but planners have very little information on the actual costs of training. All MoE unit costs for TVET refer exclusively to the TTIs, and do not consider all recurrent costs. Very little other unit cost data for TVET providers is available. There is no disaggregation of the cost of secondary schools among technical and nontechnical. Unit costs for secondary technical schools are assumed to be the same as for general senior secondary education, which implies that the investment in secondary technical schools is also below requirements. It is advisable to disaggregate secondary school spending to obtain unit costs for secondary technical schools. Public VTIs such as OICG, ICCES and NVTI do not compute unit costs, and, the data on average unit costs at private VTIs is scarce. The cost of informal apprenticeships is slightly better known, thanks to recent research in this area.

The Ineffective Funding Model

The public financing approach and (lack of) incentives used to support TVET in Ghana help to create and perpetuate a supply driven, low quality skills system. Public financing incentives are lacking for training providers to deliver better services, for employees to improve their skills and employability, and for employers to train more. In many cases, government financing approaches end up distorting markets.

TVET public financing is not based on any transparent funding mechanisms. Once an institution begins to receive funding, subsequent allocations are guaranteed. Funding is based on inputs (the number of students and teachers) irrespective of the institute’s performance, outputs (the percentage of students graduating or achieving a specified minimum standard) or outcomes (the
percentage of graduates finding employment or becoming self-employed within six months of graduating). The same levels of finance are allocated to poorly performing institutes with high dropout rates, as to those that maintain a high quality of teaching and performance. The current public financing mechanism has created long chains of accountability between the providers (TTI, NVTI etc) and the client (the youth and their parents). Salaries of teachers and instructors in the public providers are paid by the government, not directly by parents, and they know that they will get paid regardless of how many students pass their exams or gain adequate practical competencies. And, they are not easily fired for under-performing, coming to class late or not coming at all for extended periods.  

Planners’ lack of consideration of performance, outputs and outcomes in deciding how much to allocate to a particular TVET institute, combined with the lack of incentives for TVET institutes’ effective use of available resources results in training providers having insufficient interest in their finances. Training providers have no financial incentive to meet labor market needs or to improve their performance.

In order to make a more performance-based system work, it will be necessary to improve TTIs’ and VTIs’ management capacities and to hold managers accountable for results (World Bank, 2008a: 77).

Both public and private TVET institutions should be able to compete for public financing. Providing beneficiaries with training vouchers could stimulate competition among TVET providers, improving training quality (World Bank, 2008a). Vouchers are more effective where beneficiaries have a real choice of providers and are therefore less effective in rural areas where TVET institutes are more dispersed.

Where public funding has been used to support private informal apprenticeships (as currently with the National Apprenticeship Program, NAP), it does so in a way that risks substituting for private financing; in other words, the government ends up paying for something that the private sector would have normally paid for; the government is financing a one year informal apprenticeship, with apprentices themselves paying nothing – where normally they would have financed the training.

Where public funding has been used to support short duration skills training in Ghana, as was the case of the Skills Training and Entrepreneurship Program (2003-2005) (Annex B.11) or, more recently, the Local Enterprise and Skills Development Program (LESDEP) (Annex B.10), it is often done so in an inefficient way; for example the targeting is inadequate so the program benefits are captured by better off segments of society; or, the program is not well designed and functions in parallel to the existing TVET programs.

Equity Implications of Current TVET Financing

Is public finance for technical and vocational skills development used strategically to promote social equity?

As noted in Chapter 3, the poor have considerably lower access to skills training in Ghana, be it institute-based or enterprise-based: fees and other contributions by private households constitute obstacles.

65 In contrast, private training providers tend to have relatively shorter chains of accountability; parents pay school fees to the school, and teachers and principals aim to deliver a good service and be seen to deliver good outcomes (high proportions of students getting high marks, or going to higher education and training). If they don’t, parents are quite free to take their money to another private school.
Much public spending on TVET is not targeted at the poor but is captured by those who are less in need, thus widening inequalities. For example, the World Bank (2010b) estimates that only 19 percent of the public spending for MOE vocational education reaches the poor. The hardest public TVET provider for young people to enter (the TTIs) is the most subsidized provider with the lowest fees; TTI training fees are on average about one tenth of those in the other public TVET providers (see Annex B.1).

The majority of public TVET providers do not offer scholarships to poor youth; those that do, do so on very small scale and ad-hoc manner. In some public VTIs (e.g. ICCES and OICG until recently), training center managers often offer poor students very flexible payment arrangements; but this has resulted in often large fee arrears as many such students default on fee payments and even complete their training often owing training fees for multiple years.

Other kinds of public subsidies for TVET are often used inefficiently. For example, where subsidized (or free at point of use) short term training offerings are introduced (sometime with the offer of some free or subsidized equipment), these can result in trainees dropping out of longer term training they are currently in (and paying for); this was the case with the 2003-2005 Skills Training and Entrepreneurship Program in Ghana (REF). Another example of inefficient use of public subsidies is inherent in the financing of the National Apprenticeship Program (NAP) (Annex B.9); the selection process for NAP apprentices does not favor the socially disadvantaged, but simply has a blanket prerequisite that participants should be JHS leavers.

Targeted allowances and stipends may improve access, but it may be difficult to create a transparent mechanism to identify those who should, and should not, qualify.

Diversified Sustainable Sources of TVET Financing

As noted above, identifying systemic diversified and sustainable sources of funding for TVET has proved to be problematic. Ghana’s planners recognize that TVET is expensive (compared with general education) and that it therefore can not be fully funded by the government (GoG, 2008b). Indeed, as Chapter 3 underlined, most TVET is delivered and financed privately, especially through the informal apprenticeship system. While most TVET provision in Ghana is private, the public TVET system remains seriously underfunded and expenditure trends do not indicate that TVET is an education priority (GoG, 2008b; 2012). It is clear to all stakeholders that a diverse funding portfolio is required, including both public and private funding. For the promising new Skills Development Fund mechanism to be sustainable, there needs to be agreement on an industry levy.

There appears to be a divergence between government (and political) rhetoric concerning the importance of TVET, and actual financial support to the subsector. The government’s political commitment to the TVET strategy (both the New Patriotic Party government 2001-2008, and the National Democratic Congress government since 2009) has not so far translated into appropriate fiscal commitments for the future. TVET in Ghana competes with other high priority sectors and social strategies.

5.5. Concluding Comments

This review of TVET financing in Ghana illustrates several of the market and non-market imperfections outlined in the conceptual framework elaborated earlier (chapter 1).

At the level of the institution, public TVET funding in Ghana is based on enrolment numbers and historical allocations, with no official mechanism to offer financial incentives to better performing
departments or staff. While public TVET institutions are allowed to charge and retain student fees, many – especially those in rural or poorer urban areas (but not technical training institutes and NVTIs) have great problems with student fee payment. As a result, while the government financing model assumes 100% on-time fee collection, the realities on the ground dictate that institutional heads are often left with a choice of excluding (most often) poorer students for non-fee payment, or else letting the institution run up large fee arrears which results in declining quality. There are no public funds that can be borrowed by institutions to bridge periods of non-fee payment.

Much public spending on TVET is not targeted at the poor but is captured by those who are less in need, thus widening inequalities. For example, it is estimated that only 19 percent of the public spending for MOE vocational education reaches the poor. The majority of public TVET providers do not offer scholarships to poor youth; those that do, do so on very small scale and ad-hoc manner.

Public spending has not reacted to market inequalities which inhibit the access of marginalized groups to TVET. In fact, much public spending on TVET is not targeted at the poor but is captured by those who are less in need, thus widening inequalities. For example, the World Bank (2010b) estimates that only 19 percent of the public spending for MOE vocational education reaches the poor. The hardest public TVET provider for young people to enter (the TTIs) is the most subsidized provider with the lowest fees; TTI training fees are on average about one tenth of those in the other public TVET providers.

For the formal public TVET sector there are currently no government incentives, such as targeted reductions in training fees, scholarships or conditional cash transfers, that might encourage parents to send their children for training, or that might encourage more equitable access. Similarly, there is no government support for the formal private TVET sector, and where public funding has been used to support private informal apprenticeships (as currently with the National Apprenticeship Program, NAP), it does so in a way that risks substituting for private financing.

There remain large inefficiencies in the systemic financing approaches currently used. Very significant resources are still being spent by the government on TVET activities that are not coordinated with COTVET, and largely operate independently of the main TVET-delivering ministries, departments and agencies. Despite the establishment in 2010 of a skills development fund (SDF) which is meant to stimulate sectoral improvements, the government is still allocating large sums of money outside of the SDF mechanism; for example none of the funding for Local Enterprise and Skills Development Program (LESDEP) in 2011/12 ($50m) went through the SDF.

Where public funding has been used to support short duration skills training in Ghana, as was the case of the Skills Training and Entrepreneurship Program (2003-2005) or, more recently, the LESDEP, it is often done so in an inefficient way; for example the targeting is inadequate so the program benefits are captured by better off segments of society; or, the program is not well designed and functions in parallel to the existing TVET programs.
Chapter 6: Policy Recommendations

Summary

In recent years the government has taken some positive steps, including the establishment of a coordinating body, the Council for Technical and Vocational Education and Training (COTVET). The council should help promote much stronger articulation among ministries, as well as with development partners and the private sector. Much remains to be done however.

The government role needs to change, so that it becomes less directly involved in training provision and more involved in promoting coordination, and providing incentives, accreditation, quality assurance and information.

Any Government intervention should be cognizant of current market offerings, and of the risks of creating undesirable market distortions.

Incentives linked to stimulating demand are required. Ghana’s TVET system will not get transformed into a demand-driven TVET system so long as the demand side of the economy is itself having problems.

The basic competencies of the supply of young people into TVET programs needs to be improved, both for equity and competitiveness reasons. A more rigorous social profile of the youth is required to enable the development and delivery of different types of training (and complementary) interventions.

Diversifying the TVET financing base is important, but so is allocating resources more effectively. Supporting the Skills Development Fund by channeling more resources through it can help to incentivize change in other reform aspects.

This chapter examines a number of recommendations related to cross-cutting, systemic issues, including: (i) TVET policy development and governance; (ii) creating a demand-driven, responsive TVET system; (iii) equity considerations; (iv) TVET financing; and (v) data monitoring, evaluation and information systems.

6.1. TVET Policy Development and Governance

A national technical and vocational skills development strategy is in preparation under the auspices of COTVET. This strategy needs to be: responsive to the challenges stemming from social demand (equity, employment); relevant for the private sector and labor market demand; informed by market and non-market failures; adequate for the national economic development priorities (diversification, shared sustainable growth); and, effective in terms of incentivizing the training providers to align with these expectations. The national skills strategy needs to complement, and be complemented by, reforms that are underway in related sectors (such as private sector development and employment, the informal economy, ICT and agriculture).66 Skills training must be more explicitly linked to post-training support agencies (e.g. governmental, NGO and private providers of credit, business advice, job information etc).

66 See also Palmer for a discussion of the types of enabling environments that need to be created through complementary reforms (Palmer, 2009b, 2007c).
The government role needs to change, freeing itself from being directly involved in training provision and more involved in promoting coordination, and providing incentives, standards, accreditation, quality assurance and information. Any Government intervention should be cognizant of current market offerings, and of the risks of creating undesirable market distortions. Addressing effectively the market failure should exclude the government from being a market participant. For example, the majority of training that takes place in private informal enterprises is managed by some kind of market operating without government subsidy or support; the government should be careful not to distort what is currently working reasonably well (World Bank, 2012b: 117) and instead should focus on any market failures (e.g. inequalities). To give another example; if for instance, the government builds a functioning qualification system as the cornerstone of quality assurance, it cannot also provide training for the quality of which it carries a judgment.

The national qualification system under construction needs to focus on training and skills that are effective in terms of improving the chances of youth to find employment, improve individual earnings, enterprise growth and productivity. Further, the qualification framework needs to be developed in vinc with the competency based training system that is being gradually introduced in Ghana. This system focuses less on the inputs, courses attained and years passed and more on the skills and competencies acquired. Also, a key cornerstone of the national qualifications framework is the recognition of prior learning which effectively integrates apprenticeship and other informal and non-formal types of training into one qualification framework.

COTVET must be vested with real authority and not merely be a consultative agency. COTVET must be allowed to make decisions and should ultimately control – or have significant influence over - the allocation of TVET resources. As it stands, the bulk of all TVET resources are outside of COTVET’s control and authority; for example all the public ministries providing TVET control their own budgets, and the GoG also heavily finances TVET related activities through programs like LESDEP (Annex B.10). The government needs to empower COTVET so that it succeeds where NACVET has failed. COTVET should coordinate and manage any future external support to TVET from development partners or NGOs and should serve as the counterpart agency for all external assistance, ending a tradition of bilateral agreements between development partners and ministries, agencies or departments. COTVET may opt to hand over operational responsibilities to a specific agency or department for the implementation of training.

In parallel with the strategic agenda, adequate capacities need to be built for coordination implementation and monitoring, and to develop policies to stimulate both demand and supply. A key capacity is COTVET’s ability to coordinate across sectors, government agencies and various types of providers, including: (i) standards for training services and qualification framework; (ii) monitoring and information systems; and. (iii) development partner and NGO support.

COTVET must be the main driver of TVET policy, but efforts must also be made to strengthen the capacity of key TVET stakeholders, both government and nongovernmental, so that they can better contribute to TVET policy development within the COTVET framework. The MoESW is particularly seriously in need of capacity building in the area of TVET policy formulation and the provision of intermediary services. Capacity-building efforts are needed at all levels, from agency heads to regional offices, through institutional heads.

6.2. A Demand-Driven, Responsive TVET System

Ghana’s TVET system will not get transformed into a demand-driven TVET system so long as the demand side of the economy is itself having problems. Incentives linked to stimulating demand are required. We know that the majority of those working in Ghana’s labor market work in the
informal economy, most often in small-scale, low productivity agricultural and non-agricultural ventures. And we know that most new jobs are created here, while the formal labor market has a much lower absorptive capacity for labor. The informality of the labor market and the existence of its low-skills equilibrium is persistent. But there are options that could be taken to help move away from this. More effort is needed to stimulate growth in the informal economy, as well as to stimulate demand for higher skill levels. In addition to this, there needs to be increased focus on TVET for the informal economy, and a move away from the notion that only formal sector demand should be considered when we talk about TVET reform being ‘demand-driven’.

At the systemic level, a mechanism is required to determine industrial skills requirements on an ongoing basis. For this to be achieved, collaboration between ministries (especially MoE, MoESW and MoTI ministries) and the private sector is essential; ideally this would be promoted under the coordination of COTVET’s Industrial Training Advisory Committee (ITAC). In order to identify and forecast skills demand, COTVET should consider developing a scarce skills list such as South Africa’s (RSA, 2007); this list would reflect the skills that are most needed and on which policy makers need to focus acquisition and development efforts. COTVET should also look at the Labor Market Intelligence Reports produced by the Philippines Technical Education and Skills Development Authority (TESDA). Other countries pursue this approach and publish separate reports on the current and future skill needs of different sectors (See Figgis and Standen, 2005 and Government of Australia, 2005).

Decentralization should play a key role in making training decisions more relevant to the market. TVET development and expansion can only be successful in a decentralized context where districts and institutions take the lead. This will require capacity-building efforts at the institutional and district levels, as well as the capacity building of informal trade associations. Formal public institutions should be run under strategic leadership, with a clear outcome focus and effective management, as if they were privately managed. Public TVET institute managers should be given increased autonomy (to set fees, hire and dismiss staff, determine curricula content, and choose training materials and pedagogy).

The performance of both public and private institutions (and their managers) should be promoted through specific incentives. Institute boards should be reformed to include private sector representatives, whose participation could be encouraged through tax concessions. To adjust to this reorientation, public and private TVET institutes’ management require ongoing capacity building to better read local market demand for skills and organize resources accordingly. In this regard, it is positive that the TVET subcommittee report of the NERIC proposes that institutional management and leadership be strengthened (GoG, 2007d); however, such capacity building could usefully be extended to private providers also (World Bank, 2008a).

The government and COTVET would do well to revisit the design of this very well intentioned National Apprenticeship Program which appears to have been built more on good intentions and less on evidence-based experience of past programs. It contains several elements (e.g. the one year duration, the government taking over fee payment and the offering of stipends to apprentices) that have either not worked in the past, have been shown to reduce the quality of ‘graduates’, or have proven to be unsustainable (Annex B.9). Lessons from Ghana (and more widely from West Africa) suggest several approaches to improve informal apprenticeships, making them more responsive to changing demands: Provide literacy and second-chance education programs for master-craftspeople and apprentices; Improve access to technology for master craftspeople; Offer further technical and pedagogical training for master-craftspeople; and, improve training quality through certification and workplace monitoring.
6.3. Equity Considerations

Equity considerations need to be given significantly more attention from the enterprise and institution to the strategic level. The inequitable access to education, to TVET, and to employment strongly suggests the need to increase targeting of the poor to help them to “catch-up”. The low levels of proficiency in literacy and numeracy at the basic education level has implications for the supply of young people into TVET. Ghana cannot hope to develop a competitively skilled post-basic educated workforce when the inputs into this skills system lack basic capacities.

The education reform goal to increase access requires a carefully designed scholarship scheme that does not exclude private financing. The scholarship scheme should promote access to TVET, especially for the poor, and for women to enter trades that are not traditionally female. However, experience in implementing scholarship schemes has shown that it can be very difficult to achieve a transparent selection process that does not become politicized or distorted by local power imbalances. Nonetheless, the need to create further learning opportunities for disadvantaged youth means that further efforts should be focused on finding ways to make such a scholarship scheme operational.

A more rigorous social profile of the youth is required to enable the development and delivery of different types of training (and complementary) interventions. Better targeting is required. A well-targeted program, designed well can really contribute to public goods. A targeted scholarship scheme could promote access to TVET, especially for the poor, and for women to enter trades that are not traditionally female. Improving access to and completion of a quality JHS education will help to make access to post-JHS TVET programs more equitable. Policies and initiatives related to reducing direct and opportunity costs of training will also help.

6.4. TVET Financing

Policy makers should urgently revisit and translate into action some of the many financing proposals that have been made over the last decade. Without such an agreement new TVET policies cannot be implemented.

The skills development fund needs to be capitalized through the establishment of a payroll tax for both public and private sector entities. It is essential that the levies not be diverted to the government treasury and used for general TVET budgetary expenditures, but be managed by the fund itself. Given that 80 to 90 percent of Ghana’s economy is informal, there is a risk that the formal enterprise base (public and private) may not be sufficiently broad to make such a levy sustainable or viable. Planners will need to determine ways of taxing informal businesses too.

Beyond the mobilization of resources for Ghana’s TVET system, more important still is the issue of how these resources will be effectively and efficiently used, and how incentives will be created to encourage and reward good performance. The issue of resource allocation is not sufficiently discussed: at the 2008 Education Sector Annual Review, the TVET thematic group made recommendations about potential funding sources for TVET, but failed to discuss the mechanisms to enable resources to be used more effectively (GoG, 2008b).

Channeling the majority of TVET resources through a skills development fund will make it easier for funds to be allocated in line with both general national socioeconomic priorities, and specific priorities identified by COTVET. The allocation mechanism could encourage a demand-driven approach, linked to effective training delivery focusing on market skills requirements. For example, instead of transferring funds directly to training providers, allocations could be made to businesses,
employers’ organizations or individuals who would then decide which training provider to use, thus promoting healthy competition among public and private providers. This competitive process would in turn enhance the quality and relevance of training provision in both the public and private sectors.

In addition, a fully capitalized SDF could be used to stimulate innovation and improve performance. Training institutes’ financial allocations could be linked to their performance by developing and monitoring benchmarks and indicators. Old input-based funding mechanisms should be dismantled and replaced with new formula based on inputs, outputs and outcomes (Johanson and Adams, 2004).

**A new resource allocation mechanism for TVET must focus above all on one issue: incentives.** COTVET needs to design an incentive system that will encourage change and responsiveness in Ghana’s TVET system, so that:

- Public and private institutes meet industry standards and requirements;
- Training staff and departments are rewarded for better performance and their ability to react to changing market demands;
- Private industry is encouraged to participate in the sector’s reform (involving trainers, board members, competency-based training development, staff and student attachments and so on);
- Equity objectives are achieved;
- The focus of training shifts from inputs to outcomes; and
- Existing resources are used more effectively and efficiently.

6.5. DATA, M&E and Information Systems

**Strengthen TVET information systems, covering the monitoring and evaluation of TVET supply, demand and financing.** In Ghana, key TVET stakeholders (including COTVET, public ministries, public and private training providers, employers, potential labor market entrants, and others) largely operate without access to useful and timely information to help them make the right decisions at the right time. The TVET information system envisaged in the COTVET 2012-2016 Strategic Plan (COTVET, 2012b) must ensure that it goes well beyond the current approach of focusing on inputs.

Since the 2005/06 academic year, the MoE’s EMIS project has produced an annual report, based on a survey of a nationwide sample of TVET providers: the *Report on Basic Statistics and Planning Parameters for Technical and Vocational Education in Ghana* (See GoG, 2008c for example). While this is a useful step forward, the reports face a series of shortcomings:

- They focus entirely on TVET inputs (the number of students, institutions and teachers);  
- Although they cover both public and private formal TVET institutes, they do not cover all of these providers; they are based on a sample;  
- They do not cover efficiency (dropout, repetition and survival rates), effectiveness, outputs (the share of trainees that pass examinations) or outcomes (the share of trainees entering wage or self-employment six months after graduating);  
- Institutional financing and unit costs are not considered;  
- Only some indication of quality is provided (the share of trained teachers, the state of infrastructure); and  
- No information on enterprise-based training (both training in formal enterprises and informal apprenticeship training) is included.  
- There is no disaggregation of data for the different public providers (e.g. TTIs, NVTI, ICCES etc) and there are no data on secondary technical schools.

67 As noted earlier, unit costs are only calculated for the MoE technical training institutes and the calculations are not a true reflection of the actual unit costs.
References


______. (2006c) *Youth Employment Implementation Guidelines (Ghana Youth Job Corps Program)* (March), MoMYE: Accra.


