

FP&M SETA PERFORMANCE REPORT 2015 / 2016



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1. Background and Purpose

1.1 Introduction

This paper was commissioned by the Fibre Processing and Manufacturing Sector Education and Training Authority (FP&M SETA) as part of a process of putting in place baseline information and a set of indicators that will enable the accounting authority and the SETA management to evaluate impact and be in a position to report on progress in relation to SETA goals and priorities aligned to professional, vocational, technical and academic learning programmes (PIVOTAL) skills. It is a product of a research and data analysis processes, as well as some sub-sector stakeholder consultation. The report should be understood as one of a number that have interrogated the relevance, efficiency and effectiveness of programmes funded by the SETA, including tracer studies and surveys of employers conducted during previous FP&M SETA Sector Skills Plan (SSP) reviews. It should be viewed as preparatory work for more in-depth impact evaluations that will be conducted on priority SETA programmes that address scarce and critical skills needs in the sector going forward.

The intention of the paper is first to establish what the priority scarce skills occupations are that the SETA has been seeking to address as well as the underpinning critical skills required in the sector. Secondly the paper sets out to document the interventions that have been identified and implemented in the SETA to address these skills needs. Thirdly the paper starts the process of assessing the extent to which the SETA, through its funding of programmes, has made an impact on the scarce and critical skills that have been identified through research for the Sector Skills Plan. Finally the paper proposes an approach to reviewing priority PIVOTAL programmes through the mapping of OFO (Organising Framework for Occupations) codes so as to ensure that programmes promoted and funded by the SETA are contributing to addressing the priority skills needs in the sector.

The paper also has another purpose, namely to provide baseline data for a future impact evaluation. It is understood that the SETA intends to take the evaluation process further and that selected programmes will be studied in-depth to establish impact. The paper should therefore be viewed as important baseline information that prepares the way for, and grounds, future impact evaluations.

1.2 Background

The FP&M SETA is seeking to respond to the current policy imperative of addressing, through education and training, key skills needs in the economy so as to contribute to inclusive economic growth. This imperative is spelled out in the National Development Plan (NDP). In the NDP there are three pillars:

- Sustained economic growth
- Improving the quality and impact of education, training and innovation
- Building the capabilities of the state to deliver services and to support development and transformation

The three pillars are linked and inter-dependent. SETAs are positioned in the NDP as part of the “capable state” and as such must improve skills outputs to contribute to inclusive growth. Human Resource Development is viewed as a key strategic area

of work for the achievement of economic growth and reducing unemployment and poverty. Skills in themselves cannot create jobs or increase gross domestic product (GDP), but they are a key enabler. There are many specific proposals in the NDP which are relevant to SETAs. These can be summarised as requiring SETAs, in partnership with other stakeholders, to work much more effectively, and in a focused manner, to produce skills needed in the economy and, be able to demonstrate impact.

HRD Council and HRD Strategy

In 2015 the Human Resource Development Council (HRDC) reviewed the HRD Strategy of the country and determined to sharpen its focus on skills for the economy. The HRDC has examined the entire value chain from Early Childhood Development, through general and further education and training to the point where learners exit the formal schooling and college system to enter higher education and employment. The HRDC has identified the need to focus on occupations that are required in the economy and which are in short supply.

The initial scarce skills focus of the HRDC in 2010 was on unblocking challenges within the artisan supply chain. The HRDC received a report from Joint Initiative on Priority Skills Acquisition (JIPSA), which had set out the crisis in 2008 when only 5000 artisans were being trained. A collective effort has resulted in a trebling of the numbers to over 15000 in 2015. This shows the potential for success when key stakeholders such as private and public employers, SETAs, education and training providers, and the Department of Higher Education & Training (DHET) work together on addressing a set of agreed scarce skills occupations.

The focus for the next five years will remain on artisans but will also include other scarce skills occupations and the programmes needed to address them. These include not only programmes in the Technical Vocational Education and Training (TVET) band and in Universities but also intermediate skills at National Qualification Framework (NQF) levels 5 and 6. There will also be a focus on professions and the challenges of equity in the supply of professionals.

SETA Grant Regulations

The SETA Grant Regulations of 2012 required SETAs to allocate 80% of their available discretionary grants to PIVOTAL programmes. PIVOTAL programmes are those that address scarce skills occupations that are in high demand by industry and also critical skills that are intended to enable existing employees to improve their performance and career prospects and to provide modules of employable skills for unemployed people seeking work in the sector.

PIVOTAL, emphasising the fact that such programmes are at all levels and in all industries – key programmes that are needed by industry to function and perform better and respond to change. Again although the emphasis is on the achievement of full qualifications, shorter programmes and periods of work integrated learning that contribute to achieving a qualification are also included.

One of the challenges is to understand the reason for a skill or occupation being in short supply. In some occupations there is a good supply of qualified people but many of those qualifying are not able to do the work they are qualified to do. They are qualified but not (yet) competent. Some require work experience that was not available at the time of their studies. The SETAs have been funding work placements and internships for such graduates. Although not strictly an Education, Training and Development (ETD) Programme, the internship is classified as PIVOTAL because it addresses a particular problem in the supply of skilled and competent people.

PIVOTAL programmes include full qualification programmes as well as part qualifications and top-up courses, generally known as skills programmes (or more recently, modules of employable skills), that can contribute to full qualifications. In other words, the learning interventions such as learnerships, apprenticeships, bursaries, internships and work placements can be classified as PIVOTAL. The important issue is for the SETA to identify the key blockages to the supply of suitably qualified and competent people to fill scarce skills posts and to put in place PIVOTAL programmes that help unblock supply. The task of the SETA is not to replicate or replace the work of the education and training system, but to bring the needs of industry into the process, brokering agreement on interventions that will make a difference.

Because of the importance of focusing on scarce skills occupations and the PIVOTAL programmes that address them, SETAs are required to follow a thorough process. The process must include sound research. The research outputs must be subject to engagement with industry stakeholders and consensus should be reached on the key occupations that need strengthening in each sub-sector. There should be an analysis in the Sector Skills Plan (SSP) of the supply-side challenges in the occupations identified and the type of programmes needed to address them. Once agreement has been reached, and the SSP approved, the SETA must put in place concrete plans to implement the agreed priority PIVOTAL programmes. The details of the plans must be set out in the Strategic Plan and Annual Performance Plan (APP). Outcomes of the training should be set out in the annual report and SETAs should conduct evaluations on the relevance, efficiency, effectiveness and impact of the programmes. Such impact studies should also feed into the SSP review process and inform adjustments to programmes to achieve improved effectiveness and impact.

Occupations in High Demand

Government has embarked on a process of producing a list of Occupations in High Demand. This list has replaced what used to be called the National Scarce Skills List that was published by the Department of Labour (DoL) annually up until 2008. The renamed list sets out occupations that are not only in short supply but which are so essential that they may require skilled people to be recruited from other countries to fill the gap in the short term.

The purpose is therefore not only to inform planning processes and the allocation of Education and Training resources to the required programmes (i.e. which university degrees will be funded by DHET), but also to inform the Department of Home Affairs (DHA) in approving Critical Skills Visa applications. These visas enable foreign nationals with the required skills and qualifications to enter the country and work without some of the red tape that is associated with general work permits. The Occupations in High Demand list is drawn from the scarce skills lists of SETAs but is not identical. SETAs may develop lists that are very important for their

sectors but are not necessarily in such short supply that critical skills visas are needed to address them. So although the two lists will contain some common occupations, there is room for SETAs to add occupations that are important to the sector and its sub-sectors.

1.3 Purpose

It is within this policy and regulatory context that the research team has worked to:

- Identify the scarce skills occupations in demand in the FP&M sector over the period 2013-2015. Most importantly this includes generating a discussion on the validity of the most recent, scarce skills list. The intention is that this discussion will feed into the next stage of the SSP review process for 2016.
- Agree (in retrospect as these were not in place in 2013) the PIVOTAL programmes that the SETA was prioritising during the period 2013-2015 by referring to data on FP&M SETA-funded programmes.
- Conduct an assessment of the FP&M SETA programmes that were planned and implemented to improve the supply of people to the scarce skills occupations. Having established what the SETA intended to deliver, the purpose is to explore how successful the SETA was in delivering suitably qualified and competent people in priority scarce skills occupations. Part of this process will involve the mapping of OFO codes against the number of learners trained by the FP&M SETA in scarce skills occupations. This will be a further step in the process of evaluating impact of FP&M SETA programmes, a process that has included tracer studies and will over the period 2016 and 2017 include impact evaluations of priority programmes.
- Review the PIVOTAL skills list so as to ensure that there is agreement on this as the SETA enters its 2016 planning period. One of the concerns that DHET is trying to address is the need to look ahead at possible changes in existing production processes and potential new industries (for example Green Industries and innovation in manufacturing). So PIVOTAL programmes should not look backwards or focus on today's needs (one of the weaknesses in WSPs) but should look to the future needs of the sector and the economy.

1.4 Methodology and approach

In conducting this study a mixed methods research methodology was adopted using deskwork, interviews and data analysis.

1.4.1 Deskwork

The deskwork comprised a documentary review of internal SETA documents (three Sector Skills Plans over the period 2013 to 2016 and the 2015 SETA Grants Policy) and external documents that have a bearing on the strategic direction of the SETA. These documents included the National Development Plan, The Human Resource Development Strategy for South Africa, the White Paper on Post-School Education and Training; the National Skills Development Strategy III; the recent document released on the new SETA landscape; SETA Grant Regulations; Guidelines issued by DHET on scarce skills, occupations in high demand and PIVOTAL programmes. Quantitative data from the SETA Quarterly Monitoring Reports (SQMR) and the SETA Commitment Registers were sourced from the Projects and Education and Training Quality Assurance (ETQA) divisions of the SETA for the period 2013 to 2016. Scarce and critical skills data was retrieved from the SSP documents for 2013, 2014 and 2015.

1.4.2 Interviews

Telephonic interviews were conducted with key, industry experts across eight FP&M sub-sectors in clothing, footwear, printing, publishing, wood products, forestry, packaging, and paper and pulp. SSP interview data collected in 2015 through focus groups with the clothing, textiles and forestry sub-sectors was also included for purposes of validation. The main purpose of the interviews was to conduct an initial assessment of the validity of the current list of scarce skills occupations and to pave the way for further stakeholder engagements during the 2016 SSP review process.

Table 1: Impact report interview summary 2015/16

Sub-sector	Person interviewed	Employer
Clothing	Graham Choice, Martie Raphael	Apparel Manufacturers of South Africa & Cape Clothing Association, The Foshini Group
Footwear	Jai Deepnarain	Eddels SA
Forestry	Roger Godsmark, Pam Naidoo, Thinus Miennie	Forestry South Africa, SAPPI
Paper & Pulp	Mike Truelock	Sappi Southern Africa
Wood Products	Roy Southey	Sawmilling SA
Packaging	Ken Leid	Printing SA
Printing	Tania Rhode, Ken Leid	Printing SA
Publishing	Rhulani Bila	Publishers Association of South Africa

1.4.3 Data analysis

SQMR data and data from the SETA Commitment Registers formed the bulk of the data analysis. A comparative analysis of scarce and critical skills between 2013 and 2016 was conducted. The main intention was to understand the scarce skills needs of industry over the period, taking cognisance of any radical shifts in these needs. SETA funded programmes aimed at addressing these scarce skills were then tabled. It is important to note that the research was not intended as a formal, impact evaluation but, rather, provide a baseline for an impact evaluation to be done. The report presents an analysis of expenditure on FP&M SETA-funded learning programmes over the past three years. This fed into an assessment of the level of alignment between what the SETA spends its money on and the skills needs of industry as outlined in the draft SETA PIVOTAL list as well as the SSP. In addition to the research report, a second key output of the study was a revised, preliminary PIVOTAL list highlighting scarce and critical skills across the FP&M sector as well as key occupations in demand.

1.4.4 Evaluation criteria

The following evaluation matrix was developed as a tool for guiding the study. The evaluation matrix sought to answer three key questions on whether the SETA is allocating resources to SSP priorities; whether the SETA's processes for allocating resources and implementing programmes are efficient and whether such funded training is adding value to employers and learners in the sector? The criteria used for evaluating the data was relevance, efficiency and effectiveness.

Evaluation Questions	Evaluation Criteria	Employer
Are the identified scarce and critical skills being addressed by appropriate programmes?	Relevance	SQMR Commitment Register
Are resources being targeted at the identified priority skills needs?	Efficiency	SQMR Commitment Register
Is funded training adding value?	Effectiveness	Employers Learners

1.4.5 Limitations

The approach agreed for this study included desk research, drawing on previous work done in preparation for SSP development, tracer studies conducted recently, and a small number of targeted interviews. Methodologically, there are some limitations in the approach of the study particularly in relation to assessing impact. The analysis conducted was predominantly quantitative using SQMR and Commitments register data with qualitative inputs to validate the quantitative findings. Although telephonic interviews were conducted with key experts across eight sub-sectors, broader stakeholder consultation with employers and learners across all 13 sub-sectors was not possible due to time constraints. Also, there was no in-depth, impact analysis of priority programmes funded by the FP&M SETA. This will require visits to sites of learning and work that need to be part of the next phase of the evaluation process. Another challenge experienced was the existence of data gaps due to the way that the data on training has been captured. Data has not always been captured in the same way across the many different programme types. A key research question is the extent of alignment of FP&M SETA-funded, PIVOTAL programmes to scarce and critical skills prioritised by the sector and it is only possible to answer this fully if each training intervention is mapped against an associated OFO code. Until recently this was not a requirement and data was captured by programme type and not by the occupation the programme was addressing. The Organising Framework of Occupations (OFO), has been used for many but not all programmes. Missing OFO codes prevented the study from going to the level of specific programme and intervention linked to occupations. This problem is being addressed and will enable the required level of detail in the next stage of the evaluation.

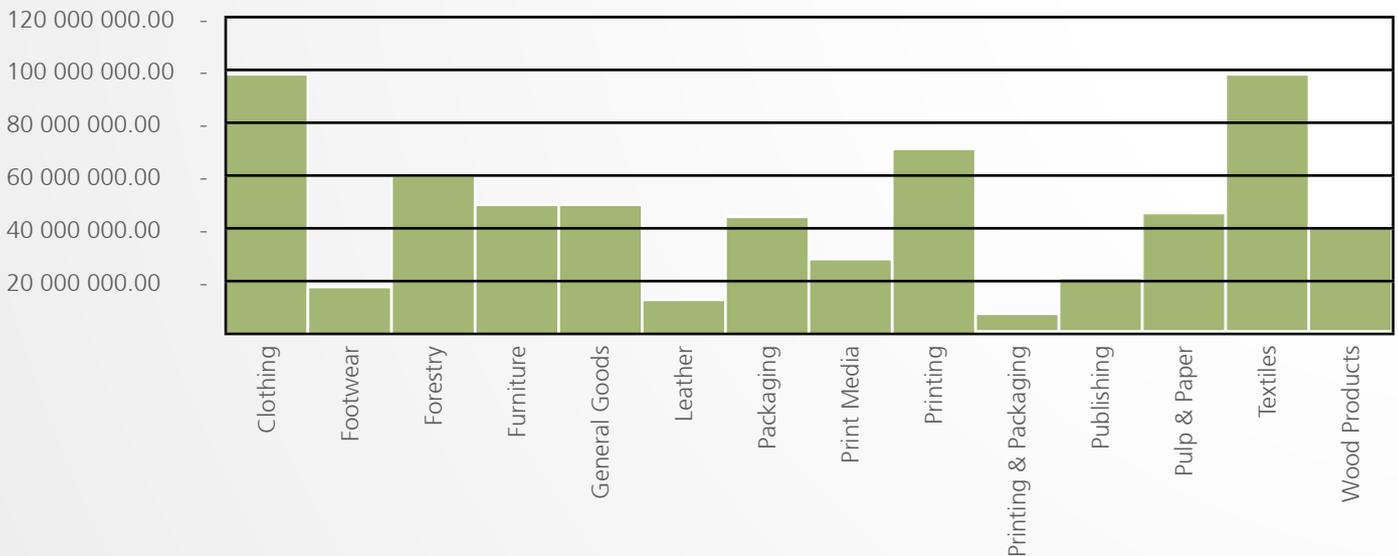
2. SETA commitments 2013/14 to 2015/16

2.1 Where is FP&M SETA committing to spend its resources?

This section of the report provides an overview of where the FP&M SETA committed its funds between 2013 and 2016, per sub-sector and learning intervention type. Every financial year the FP&M SETA makes financial commitments towards skills development in the sector to stakeholders in various sub-sectors. These financial commitments, which are at the discretion of the FP&M SETA, are made on the basis of stakeholder applications for grants as well as the SETA's priorities. The FP&M SETA committed over R 809 million towards sector development training the 2013/14, 2014/15 and the 2015/16 financial years. With respect to the 2015/16 financial year, the year to date figures being utilised are only up to end of December 2015, i.e. end of third quarter of the financial year.

2.1.1 Commitments per sub-sector

Between 2013 and end of December 2015 the FP&M SETA made financial commitments of over R809 million using its discretionary funds. During this period the highest proportion of funding went towards skills development in the clothing (15.7%) and textile (15.3%) sub-sectors followed by printing (11%) and forestry (9.4%).



Source: FP&M SETA Commitment register 2013 to 2016

During the 2013/14 financial year the highest proportion of sub-sector commitments went to Clothing (22%) followed by textiles (16%) and printing (11%). Leather (1.6%) and Footwear (2.6%) received the least funding commitments. For the 2014/15 financial year, the General goods (17%) sub-sector received the highest proportion of funding commitments followed by Clothing (14%) and Forestry (12%). During this financial year (2015/16), Footwear (1.8%) and Publishing (2.3%) were the least funded. Up to the end of December 2015, the FP&M SETA had committed 20% of sub-sector funding to Textiles, 15% to Printing and 9% to Packaging.

Table 3: Commitments per sub-sector

Sub-sector	Trend	2013/2014	2014/2015	2015/2016	Total
Clothing		R 55 756 400.00	R 28 476 200.00	R 15 374 400.00	R 99 607 000.00
Footwear		R 6 534 400.00	R 3 554 700.00	R 7 523 600.00	R 17 612 700.00
Forestry		R 21 538 100.00	R 24 068 100.00	R 14 464 642.00	R 60 070 842.00
Furniture		R 18 756.600.00	R 13 797 000.00	R 14 697 400.00	R 47 251 000.00
General Goods		R 7 477 00.00	R 7 477 000.00	R 5 378 617.00	R 47 730 117.00
Leather		R 4 119 800.00	R 4 119 800.00	R 5 018 000.00	R 14 717 150.00
Packaging		R 13 659 600.00	R 13 659 600.00	R 17 318 600.00	R 49 950 950.00
Print Media		R 13 979 760.00	R 13 979 760.00	R 4 835 000.00	R 25 728 760.00
Printing		R 27 683 600.00	R 27 683 600.00	R 27 863 775.00	R 70 454 875.00
Publishing		R 8 424 600.00	R 8 424 600.00	R 9 110 200.00	R 22 267 850.00
Pulp & Paper		R 17 093 00.00	R 17 093 000.00	R 10 419 200.00	R 43 497 900.00
Textiles		R 40 557 160.00	R 40 557 160.00	R 37 285 800.00	R 97 354 060.00
Wood Products		R 15 787 400.00	R 15 787 400.00	R 13 303 200.00	R 39 945 900.00
Total		R 251 367 420.00	R 202 229 250.00	R 182 592 434.00	R 636 189 104.00

Source: FP&M SETA Commitment register 2013 to 2016

It is clear that every year the SETA has on the basis of received discretionary grants applications allocated grants toward skills development in the various sub-sectors following a particular criteria aimed at achieving a reasonable allocation across the different sub-sectors over time (not necessarily a strict proportional allocation each year). The clothing sub-sector which started off with the highest share of the 2013/14 commitments recorded a downward trend in the years that followed as outlined in the table above. Similarly Print Media and Pulp and Paper experienced a similar downward trend. The Furniture, Printing, Publishing, Textiles and Wood products started off with higher proportions of committed funds in 2013/14 before dipping in 2014/15 and increasing their share again in 2015/16. The opposite scenario occurred with Forestry, General goods, Leather and Packaging sub-sectors which started off with a low proportion of committed funds in 2013/14 then peaked in 2014/15 before dropping by the third quarter of 2015/16.

2.1.2 Special projects

In addition to sub-sector skills development funding commitments, the SETA also committed funds towards special projects that are not sub-sector specific. A total of R 173 million was committed towards these special projects between 2013/14 and the end of the third quarter of 2015/16. The special projects include transfers to the National Skills Fund (NSF) for scarce skills bursaries administered through the National Students Financial Aid Scheme (NSFAS) and for the recapitalisation of public technical vocational education and training (TVET) colleges. In addition funding was directed towards FP&M sector imperatives such as rural development and the skills development for people with disabilities. Funds were also committed towards the development of sector occupational qualifications under the auspices of the Quality Council of Trades and Occupations (QCTO) as well as towards research projects and tracer studies that the SETA implemented.

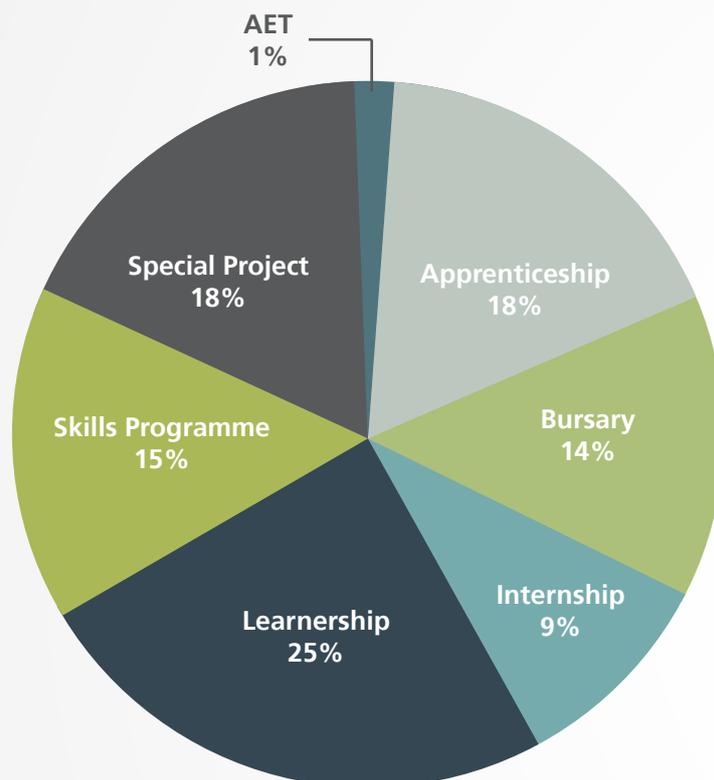
2.1.3 Commitments towards learning interventions

The FP&M SETA funds are spent on different learning interventions such as learnerships, internships, bursaries, apprenticeships and skills programmes. The SETA has also funded special programmes agreed with the DHET and has done this by way of a transfer of funds to other post school institutions such as NSFAS or the NSF. Funds to NSFAS have provided bursaries for learners to study scarce skills occupational programmes and those transferred to the NSF have mainly funded occupational programmes delivered via TVET colleges. Although special project funding cannot be traced to specific scarce skills training, a large proportion of such funding has been allocated to the overall national effort to address scarce skills challenges.

In Figure 2 below, and across the learning interventions, learnerships received the highest proportion (25%) followed by apprenticeships (18%) and skills programmes (15%). Learnerships and apprenticeships are important learning interventions in addressing scarce skills needs in the sector. Learners who completed these programmes are able to fill scarce skills occupations and trades in the sector. Additionally, the skills programmes play a vital role in addressing critical skills gaps amongst employed workers in the sector. The SETA also committed 9% of discretionary funds towards internships which include workplace experiential learning and work integrated learning for TVET College and University graduates upon completion of their qualification. These internships provide invaluable workplace exposure to graduates which enable them to meet requirements for their qualifications and to acquire practical experience in the occupation they have been training for.

The lowest proportion of funding went to Adult Education and Training with about 1% of the R 809 million. About 18% of funding was allocated towards special projects which included occupational qualification development in line with QCTO processes, transfers to the NSF for TVET college infrastructure programme as directed by the DHET and tracer studies. Excluding AET (1%) and the special projects (18%) leaves 81 per cent of committed funds towards PIVOTAL programmes. The PIVOTAL programmes include apprenticeships, bursaries, internships, learnerships and skills programmes. This means that the FP&M SETA is spending in line with SETA Grant Regulations requiring 80% of funds to be allocated to PIVOTAL programmes. If some of the special project funding is included the percentage is slightly higher.

Figure 2: Learning interventions commitments 2013-2016

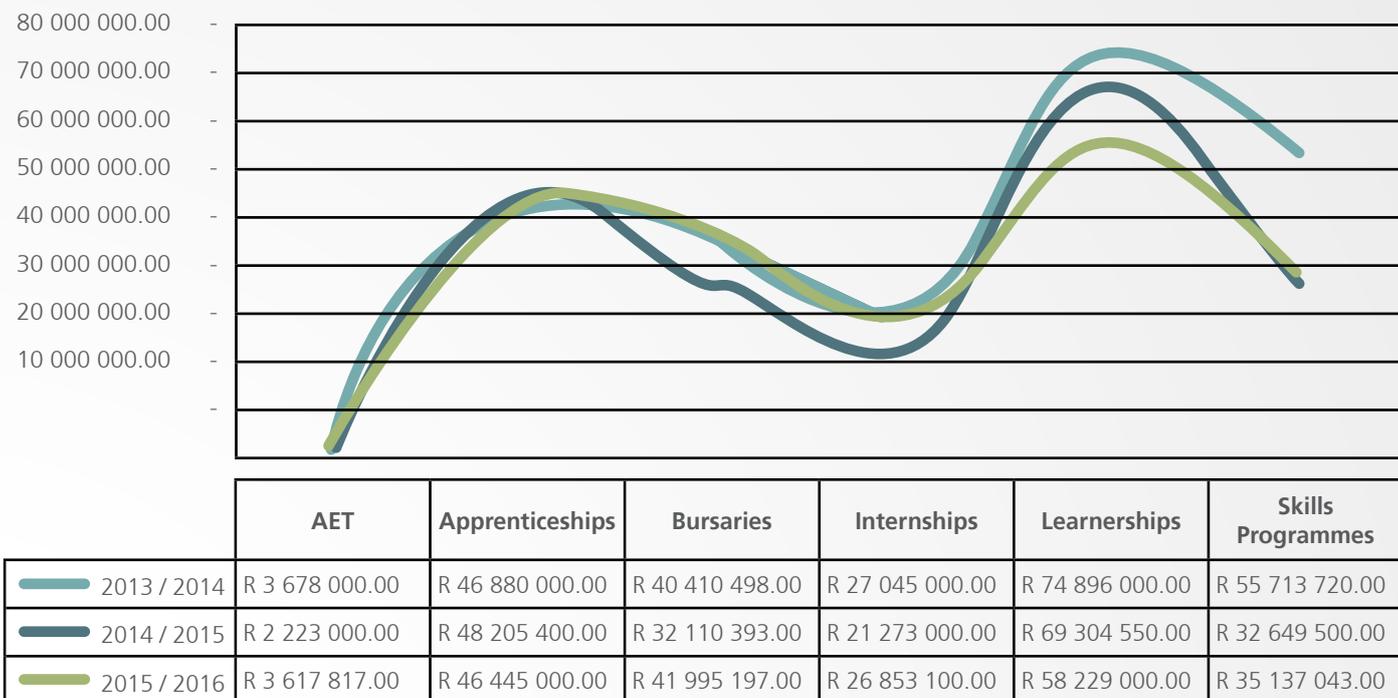


Source: 2013 to 2016 FP&M SETA Commitment registers

Between 2013/14 and the end of the third quarter of 2015/16 the SETA has maintained a similar proportion of commitments towards learning interventions. On average over the years under review, commitments towards learning programmes were: 1% for AET, 21% for apprenticeships, 17% towards bursaries, 11% towards internships¹, 30% for learnerships and 19% for skills programmes. As can be observed in the figure below, the SETA has maintained the commitments towards the different learning interventions which enables the organisation to work towards its service level agreement (SLA) with the DHET.

¹ Internships are defined as a combination of workplace experience (a structured work integrated learning (WIL) programme conducted over a 3 to 6 month period within the firm and usually necessary for the obtaining of a qualification), as well as work integrated internship programmes that TVET and HE graduates enter into post completion of their qualification.

Figure 3: Learning interventions commitments trends 2013-2016

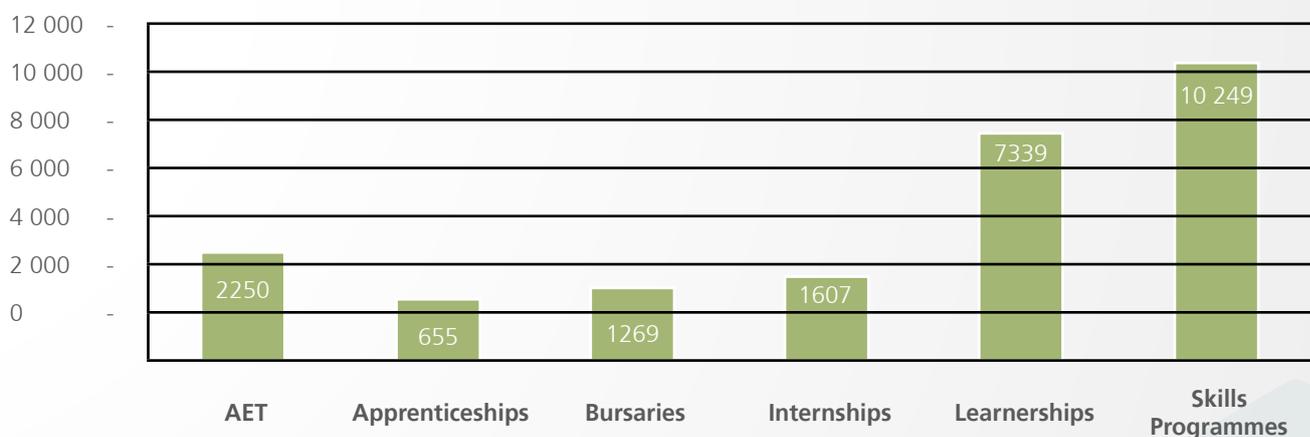


Source: 2013 to 2016 FP&M SETA Commitment registers

2.1.4 Enrolments per learning interventions

In Figure 3, the highest proportion of enrolments went to shorter-term skills programmes (47%), as compared to learnerships (33%). AET programmes constituted 4% of all enrolments whilst apprenticeships, which can run for three years, constituted 3% of total enrolments. Actual enrolment numbers per intervention per year are provided in Table 5 below.

Figure 4: Total learning intervention enrolments 2013-2016



Learning Intervention	2013 / 2014	2014 / 2015	2015 / 2016	Total
Adult Education & Training	1056	769	425	2250
Apprenticeship	256	300	99	655
Bursaries	569	572	128	1269
Internships	563	756	288	1607
Learnerships	2903	3218	1218	7339
Skills Programme	2768	4234	3247	10249
Total	8115	9849	5405	23369

Source: FP&M SETA Annual reports 2013-2014, SQMR data 2015²

2.2 Spend per learning intervention

The FP&M SETA's grants policy provides for funding ceiling per learning intervention per learner. These provide the SETA with guidelines on what to spend on which learning programmes. Taking the actual enrolments per annum across each of the learning programmes and applying the grant ceilings is indicative of the total spend per learning programme per annum. Enrolments in one particular year do not necessarily emanate from commitments in that year and the funding ceiling might have changed. For the purpose of the calculations below it is assumed that enrolments for each year were in accordance with funding ceilings that applied in that year. These funding ceilings are as follows: R3 000 per learner for Adult Education and training, R7 200 per learner for skills programmes, up to R25 000 per learner for learnerships; R50 000 per year for apprenticeships (for up to three years); R35 000 for undergraduate study per year (for up to 3 years) and R50 000 for post-graduate study per year (for a maximum of two years).

Table 5: Spend per learning intervention 2013-2016

Learning Intervention	2013 / 2014	2014 / 2015	2015 / 2016	Total
Adult Education & Training	R 3 168 000.00	R 2 307 000.00	R 1 275 000.00	R 6 750 000.00
Apprenticeship	R 35 622 400.00	R 42 435 000.00	R 14 003 550.00	R 92 060 950.00
Bursaries	R 19 915 000.00	R 20 020 000.00	R 4 480 000.00	R 44 415 000.00
Internships	R 8 445 000.00	R 11 340 000.00	R 4 320 000.00	R 24 105 000.00
Learnerships	R 58 060 000.00	R 80 450 000.00	R 30 450 000.00	R 168 960 000.00
Skills Programme	R 19 929 600.00	R 31 755 000.00	R 24 352 500.00	R 76 037 100.00
Total	R 145 140 000.00	R 188 307 000.00	R 78 881 050.00	R 412 328 050.00

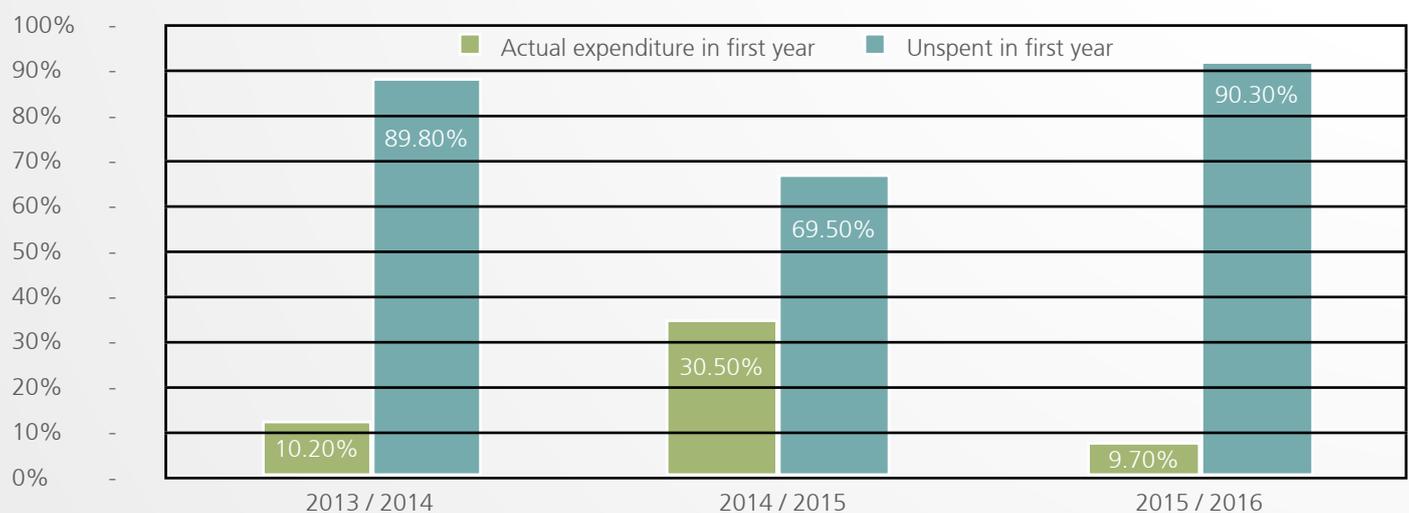
Source: Commitment Register 2013-2016

3. How are committed funds spent by the FP&M SETA?

The funding of learning interventions by the FP&M SETA has to be conducted in an expedient manner such that programmes are implemented on time, and where implementation challenges are encountered that these are speedily dealt with. After the SETA has committed funds on projects it is necessary that project management mechanisms are in place to ensure that such learning interventions are implemented on time. A measure of efficiency for the SETA in this regard is the speed to which funds are spent by the beneficiaries and where there are delays the management decisions that are taken to reallocate resources.

In the figure below, between 2013/14 and 2015/16, spend data indicates that during the year of contracting, actual contract expenditure remained low. For example, in the 2013/14 financial year, contracts totalling over R 331 million were committed of which R 33.8 million or 10.2% was spent that year. That means there was almost 90% in unclaimed or unspent funds. In 2014/15 just over 30% of committed funds for the year were spent during that financial year however this was driven mainly by spend on special projects.

Figure 5: Actual expenditure in the first year of commitments



Source: SETA Commitment Register 2013-2016

The SETA took a decision to cancel some contracts and move the funds back into the discretionary reserve the amount was 0.5% in 2014/15 and 3.4% in 2015/16. This left unspent funds of R 119 million or 26% of the committed funds. Reasons for this require more detailed research.

For 2014/15, of the total commitments of over R 265 million, expenditure in year one was 35% followed by 26.3% spend by the end of December 2015. This left unspent funds of R 113 million or 42.7% of committed funds. In 2015/16, total commitments of over R212 million were made of which 9.7% had been spent by the end of December 2015.

4. Addressing scarce and critical skills: 2013-2015

This section of the report provides an assessment of the scarce and critical skills over the period 2013 to 2016 in the FP&M sector, referring to past and current Sector Skills Plans. The SETA funded programmes that were implemented to address these scarce and critical skills are then identified using SQMR data that was sourced from the SETA. Telephonic interviews were also conducted with industry experts in 8 sub-sectors. Emphasis was placed on determining the types of occupations that are needed by employers. A brief description of the information that emerged through the interviews is presented below.

Scarce skills refer to occupations in which there is a shortage of qualified and experienced people due to unavailability of such people or because these people do not meet given employment criteria. Scarcity can be absolute or relative. Scarcity may arise due to absolute scarcity in which few people hold the necessary skills or qualifications (such as those required in a new or emerging occupation). These skills are either impossible to replace or extremely difficult to replace should they exit in the sector. Absolute scarcity can result in potential growth not being achieved and can affect productivity of companies in the sector and the economic wellbeing of the sector itself. Relative scarcity of skills pertains to skills that are difficult to attain due to geographic location, equity requirements or the lead-time on attaining the necessary skills. Critical skills refer to “top-up” skills within an occupation. These can include cognitive skills, such as problem solving, language and literacy skills. These “top-up” skills can be specific to a particular occupation resulting in skills gaps, which might arise because of phenomena such as improved technologies or new forms of work organisation.

In 2013 there were approximately 69 skills identified as being either scarce or critical. The large number of scarce and critical skills identified meant that the SETA had to spread resources across a range of learning programmes. The 2015 and 2016 SQMR data shows a narrowing of scarce skills needs and is partly reflective of DHET requiring SETAs to highlight the key scarce skills in their sector. By defining skills needs more clearly and prioritising those that are most important, the intention is that greater impact is achieved.

Presented below are the scarce skills needs of industry between 2013 and 2016 as reflected in the Seta’s Sector Skills Plans. Underneath this, in each table and for each sub-sector, the SETA-funded programmes are listed. By comparing the scarce skills and programme data, an assessment is made of whether the FP&M SETA has addressed training needs through the programmes it funds. Interview data from the SSP research and recent conversations with industry experts are then used to confirm and validate the occupations that are the focus of skills development within FP&M SETA and the critical or top-up skills needed by industry in order to establish whether the funded programmes in the SETA are addressing these.

4.1 Clothing

In the clothing sub-sector scarce skills needs between 2013 and 2016 have evolved from a design-orientated focus to a more operational and technical focus on Patternmaker, Machinist and Machine Mechanic occupations. FP&M Seta-funded programmes included a vast number of generic learnerships in manufacturing processes for the clothing, textiles, footwear and leather (CTFL) sub-sectors as well as learnerships in specific manufacturing processes such as weaving, sewing, dyeing and garment construction. Diploma programmes geared toward clothing and textile technology, clothing management and fashion design were also funded. There were no evident programmes funded for machine mechanics in the industry. This is to be addressed through QCTO occupational qualifications development.

Interviews with industry experts confirmed that across the clothing sector there is a demand for dedicated machinists and patternmakers. Technological advancements have created a bigger demand for machine mechanics and machine operators for automated cutters. The size of the firm also affects occupational needs. For example, larger firms often require higher level skills such as Industrial Engineers (at NQF Level 8) who design processes and process improvements for labour intensive industries such as clothing. There is often competition for such skills across other sectors, for example the automotive sector. A particularly scarce skill occupation in the industry remains dedicated Work Study officers that do the ground work for the engineer and which is a specialised field within engineering (at NQF Level 4-6). There are no work study programmes currently being funded by the SETA. The scarce skills referred to in Sector Skills Plans over the past three years are predominantly at the low to mid-level and do not reflect emerging, higher level skills needs in areas such as industrial engineering.

² Enrolment numbers reflect both unemployed and employed learners who entered learning programmes funded by the FP&M SETA. For 2013/14 and 2014/15 these enrolments have been verified with the Annual Reports of the FP&M SETA. Given that the 2015/16 Annual Report has not been finalised, SQMR data has been used for this year to generate enrolment numbers. Again, only learners entering FP&M SETA funded learning programmes have been included. It is important to note that the SQMR data used to generate enrolment numbers for 2015 does not represent the full year as it excludes quarter 4 of the financial year.

	2013/14	2014/15	2015/16
Clothing Sub-Sector			
Clothing Sector Scarce skills needs	<ul style="list-style-type: none"> • Organisation & Methods Analyst • Industrial Designer • Fabrics Technologist • Clothing Mechanic • Garment Patternmaker • Pattern Grader • Production / Machine Operator 	<ul style="list-style-type: none"> • Patternmaker • Production Operator/ Machinist • Materials Engineering Technologist 	<ul style="list-style-type: none"> • Machinist • Machine Mechanic • Patternmaker
Clothing: SETA-funded PIVOTAL programmes	Learnerships: <ul style="list-style-type: none"> • National Certificates in CTFL Manufacturing Process; Weaving Narrow Fabrics; Machinist Garment Construction Apprenticeships: <ul style="list-style-type: none"> • Sewing • Machinist 	Learnerships: <ul style="list-style-type: none"> • CTFL Manufacturing Processes: Machinist; Garment Construction; Sewing 	Learnerships: <ul style="list-style-type: none"> • CTFL Manufacturing Processes: Sewing
	Internships: <ul style="list-style-type: none"> • as part of the Diploma in clothing manufacturing 	Internships: <ul style="list-style-type: none"> • as part of the Diploma in clothing manufacturing 	Internships: <ul style="list-style-type: none"> • as part of the Diploma in clothing manufacturing
	Bursaries: <ul style="list-style-type: none"> • NDip: Clothing Management; • NDip: Fashion Design; • NDip: Clothing & Textile Technology 	Bursaries: <ul style="list-style-type: none"> • NDip: Clothing Management; • NDip: Fashion Design; • NDip: Clothing & Textile Technology 	Bursaries: <ul style="list-style-type: none"> • NDip: Clothing Management; • NDip: Fashion;
	Skills Programmes: <ul style="list-style-type: none"> • Basic Machinist; Seamstress; Garment Making; Sewing; CTFL Manufacturing 	Skills Programmes: <ul style="list-style-type: none"> • Basic Machinist; Seamstress; Garment Making; Sewing; CTFL Manufacturing 	Skills Programmes: <ul style="list-style-type: none"> • Clothing; Manufacturing Processes; • Garment Making; • Advanced Machine Operators; Sewing; Garment Construction

4.2 Textiles

Scarce skills needs in textiles have centred on technical type skills in Technologist, Machinist and Machine Mechanic occupations. Learning programmes funded by the FP&M SETA have largely focused on textile manufacturing processes through Clothing, Textiles, Footwear and Leather (CTFL) learnerships, national diplomas and apprenticeships. There has been a well-established and diverse apprenticeship programme implemented between 2013-2015 geared towards production processes and machine mechanic skills (mechanics, assistant mechanics and mechanics). This has been consistent with industry skills needs. Programmes funded in 2015/16 are largely process and design orientated, but slim in terms of machinist and mechanical skills.

Table 7: Textiles: scarce skills needs and programmes to address them

	2013/14	2014/15	2015/16
Textiles Sub-sector			
Textiles Sector Scarce skills needs	<ul style="list-style-type: none"> • Textile Technologist • Textile Mechanic • Production/Machine Operator 	<ul style="list-style-type: none"> • Machinist 	<ul style="list-style-type: none"> • Machinist • Machine Mechanic • Patternmaker
Clothing: SETA-funded PIVOTAL programmes	Learnerships <ul style="list-style-type: none"> • National Certificates in CTFL in Textile Manufacturing Processes: weaving; finishing; dyeing; warp knitting; home textiles; spinning; 	Learnerships: <ul style="list-style-type: none"> • National Certificates in CTFL in Textile Manufacturing Processes: Cutting; Discontinuous Dyeing; Patternmaker; non-woven 	Learnerships: <ul style="list-style-type: none"> • National Certificates in CTFL in Textile Manufacturing Processes: home textiles; sewing; closing; continuous dyeing; weaving

	installation of floor coverings; fabric inspection and packaging; melt extrusion; textile testing techniques	textiles; home textiles; generic management	
	Apprenticeships: <ul style="list-style-type: none"> • Tufting • Assistant Mechanic; • Weaving Mechanician - Airjet Loom; • Fitter & Turner; • Weaving Technician/Mechanic; • Weaving Machine Rapier Loom; • Tufting Mechanician • Boilermaker; Welding • Technical Dyer Finisher 	Apprenticeships: <ul style="list-style-type: none"> • Weaving mechanician -Rapier loom; • Textile Technician; • Electrician; • Mill wright; • Technical Dyer Finisher 	Apprenticeships: <ul style="list-style-type: none"> • Weaving mechanician -Rapier loom; • Textile Technician; • Electrician; • Mill wright; • Technical Dyer Finisher
	Internships: As part of the Diploma in Textile Technology	Internships: As part of the Diploma in Textile Technology	Internships: As part of the Diploma in Textile Technology
	Skills Programmes: <ul style="list-style-type: none"> • Home Textiles 	Skills Programmes: <ul style="list-style-type: none"> • Home Textiles 	Skills Programmes: <ul style="list-style-type: none"> • Hand Skills; Power Tools; • Prepare dyeing and prints
	Bursaries: <ul style="list-style-type: none"> • NDip: Textile Design & Technology; • BSc: Textile & Polymer Science 	Bursaries: <ul style="list-style-type: none"> • NDip: Textile Design & Technology; • NDip: Clothing & Textile Technology; • BSc: Textile & Polymer Science 	Bursaries: <ul style="list-style-type: none"> • B.Tech: Quality; • Fashion Production; • Fashion Design • NDip: Textile Design & Technology

4.3 Footwear and Leather

Similarly, in the footwear and leather sub-sectors, scarce skills demand has centred on mechanical and machine operation skills as well as patternmaking. Learning programme provision has been through CTFL learnerships in various manufacturing processes. There were no apprenticeships and bursaries funded over the period within these sub-sectors.

After interviewing an industry expert it emerged that skills needed in footwear were linked to operational processes at NQF Levels 2 to 3 as well as qualifications in design, process and production management and the use of technology and machines at NQF levels 6 to 8. Whilst CTFL learnerships address lower level skills linked to footwear manufacturing processes, there are no SETA-funded programmes funded at higher skills levels within the industry.

Table 8: Footwear and Leather: scarce skills needs and programmes to address them

	2013/14	2014/15	2015/16
Footwear Sub-Sector			
Footwear Sector Scarce skills needs	<ul style="list-style-type: none"> • Footwear Mechanic • Footwear Patternmaker 	<ul style="list-style-type: none"> • Footwear Technician • Machinist; • Machine Mechanic 	<ul style="list-style-type: none"> • Machinist • Machine Mechanic • Patternmaker
Footwear: SETA-funded PIVOTAL programmes	<ul style="list-style-type: none"> • Various National Certificates in CTFL Manufacturing Processes 	<ul style="list-style-type: none"> • Various National Certificates in CTFL Manufacturing Processes: Technical Footwear Design & Pattern cutting; • Wholesale & Retail Operations; 	<ul style="list-style-type: none"> • Various National Certificates in CTFL Manufacturing Processes: closing

	2013/14	2014/15	2015/16
Leather Sub-Sector			
Leather scarce skills	<ul style="list-style-type: none"> Leather Technologist Leather Mechanic Leather Patternmaker Leather Machine Operator 	<ul style="list-style-type: none"> Patternmaker Production Operator Technologist Machinist Machine Mechanic 	<ul style="list-style-type: none"> Machinist Machine Mechanic Patternmaker
Leather: SETA-funded PIVOTAL programmes	<ul style="list-style-type: none"> Various National Certificates in CTFL Manufacturing Processes: cutting; assemble and join; closing 	<ul style="list-style-type: none"> Various National Certificates in CTFL Manufacturing Processes: cutting 	<ul style="list-style-type: none"> Various National Certificates in CTFL Manufacturing Processes: cutting; closing; Apply Tanning Practices in Leather

4.4 Publishing, Printing and Print Media

Data shows that scarcities in the publishing industry have shifted from a focus on graphic design and managerial and sales related skills towards skills associated with multi-media design (that incorporate layout, illustrations, communication and language skills) and African language editing. There are a number of FP&M SETA funded programmes at learnership, diploma and degree level but none addressing the scarcity of African language editing. Interviews with industry experts revealed that the move from an analogue to digital communications platform has created an emerging scarcity of digital publishers, required to publish electronic books. Scarce skills occupations such as digital publishers have become multi-disciplinary in the sense that they combine layout, illustration, editing, and communication skills. Training programmes and qualifications funded by the SETA at higher NQF levels need to address such multi-disciplinary needs.

The printing industry has benefitted from a range of apprenticeships targeting the development of machine mechanics; millwrights; bookbinders; lithography and machine minders and technicians. Although there appears to be close alignment between the scarce skills needs of employers and training programmes provided, interviews with industry experts have raised the need to update existing, and develop new occupational qualifications, based on technological advancements. For example, techniques and technology used in screen-printing have developed considerably and training needs to follow suit. Like publishing, the Print Media sub-sector has experienced a change in scarce skills needs linked to graphic design toward those relating to multi-media design. Programmes funded by the FP&M SETA are largely skewed towards bursary and internship programmes. The former has in recent times incorporated funding National Diplomas and Bachelor of Technology degrees in graphic design, multi-media and journalism. A large pool of internships has also been funded, some providing technical skills required in the sector such as editing, web production and design techniques, whilst the bulk have targeted generic, business type skills including HR management, advertising, marketing management, public relations and office management.

Table 9: Publishing, printing and print media: scarce skills needs and programmes to address them

	2013/14	2014/15	2015/16
Publishing Sub-Sector			
Publishing scarce skills	<ul style="list-style-type: none"> Publishing Operations Manager Printing & Publishing Sales Representative Graphic Designer Electronic Publisher 	<ul style="list-style-type: none"> Book or Script Editor (African languages editor) Copywriter/Copy editor Translator Publisher/ Commissioning editor Illustrator / Book designer 	<ul style="list-style-type: none"> Multi-Media Designer
Publishing: SETA-funded PIVOTAL programmes	<p>Learnerships:</p> <ul style="list-style-type: none"> Various National Certificates: Contact Centre Operations; Interactive Media; Design Techniques <p>Bursaries:</p> <ul style="list-style-type: none"> National Diplomas: Graphic Design; Photography; Multi-Media Technology <p>Skills Programmes:</p> <ul style="list-style-type: none"> Graphic Design 	<p>Learnerships:</p> <ul style="list-style-type: none"> Various National Certificates: Contact Centre Operations; Interactive Media; Design Techniques <p>Bursaries:</p> <ul style="list-style-type: none"> National Diplomas: Graphic Design; Photography; Multi-Media Technology <p>Skills Programmes:</p> <ul style="list-style-type: none"> Graphic Design 	<p>Bursaries:</p> <ul style="list-style-type: none"> National Diplomas: Graphic Design; Multi-Media; Journalism B.Tech: Graphic Design

	2013/14	2014/15	2015/16
Printing Sub-Sector			
Printing scarce skills	<ul style="list-style-type: none"> • Printing and Publishing Sales Representative • Book Binder • Book Finisher • Printing Machinist • Small Offset Printer Operator • Screen Printer • Printing Table Worker (manual binding & finishing) 	<ul style="list-style-type: none"> • Estimator • Mechanised book binder • Pre-press operators/ technicians • Production planner • Millwright/Printers mechanic • Roll Label Machine Technician • Flexographic machine minder 	<ul style="list-style-type: none"> • Machine Mechanic
Printing: SETA-funded PIVOTAL programmes	<p>Apprenticeships:</p> <ul style="list-style-type: none"> • Bookbinding Mechanised/Cutting; • Printers Assistant; • Lithography 	<p>Learnerships:</p> <ul style="list-style-type: none"> • National Certificates in: Production Technology; • Manufacturing Control <p>Apprenticeships:</p> <ul style="list-style-type: none"> • Lithography; • Electronic Composition; • Bookbinding; • Mechanised/Cutting; • Printers Mechanic; • Printing; • Rotary Offset Machine Minding; • Continuous Stationer Machine Minding; • Electronic Origination; • Rotary Print Re-Reeling-Flexo; • Roll Label Machine Minding; • Flexography Printing; • Printers Electrician; • Electronic Mechanician. 	<p>Apprenticeships:</p> <ul style="list-style-type: none"> • Stationery and Envelope Machine Adjuster; • Millwright; <p>Skills Programmes:</p> <ul style="list-style-type: none"> • Screen Printing Multi Colour Workshop; • Prepare Dyeing and Print Colouration Materials
	2013/14	2014/15	2015/16
Print Media Sub-Sector			
Print Media scarce skills	<ul style="list-style-type: none"> • Graphic Designer 	<ul style="list-style-type: none"> • Editor • Operations Manager • Multi-Media Designer 	<ul style="list-style-type: none"> • Multi-Media Designer
Print Media: SETA-funded PIVOTAL programmes	<p>Learnerships:</p> <ul style="list-style-type: none"> • National Certificate in Contact Centre and Business Processing Outsourcing Support <p>Bursaries:</p> <ul style="list-style-type: none"> • NDip: Journalism 	<p>Learnerships:</p> <ul style="list-style-type: none"> • National Certificate in Contact Centre and Business Processing Outsourcing Support <p>Bursaries:</p> <ul style="list-style-type: none"> • NDip: Journalism 	<p>Bursaries:</p> <ul style="list-style-type: none"> • National Diplomas in: Graphic Design; • Multimedia; • Journalism. • B.Tech: Graphic Design
	<p>Internships:</p> <ul style="list-style-type: none"> • Operations Management; • Public Relations; • Layout Design; • Director; • Fashion Hub; • Marketing Management; Advertising; • HR; • Production; Trade Marketing; Editing; Junior Web Producer; • Training Coordinator 	<p>Internships:</p> <ul style="list-style-type: none"> • Operations Management; • Public Relations; • Layout Design; Director; • Fashion Hub; • Marketing Management; • Advertising; • HR; Production; Trade Marketing; Editing; Junior Web Producer; • Training Coordinator 	<p>Bursaries:</p> <ul style="list-style-type: none"> • National Certificate: Design Techniques; • NDip: Graphic Design; Marketing Management; Office Management; Journalism; Public Relations; Network Systems Support • BA: Brand Communication Leadership

4.5 Wood Products, Furniture and Forestry

There have been a variety of learnerships funded by FP&M SETA in process-related skills in the Wood Products sector. Apprenticeships were introduced as funded programmes in 2014/15 in engineering, fitting and turning, millwright, boiler making and mechanical trades. Fewer apprenticeships were funded in 2015/16. SQMR data displayed no programmes funded for machinist and machine operators, skills that have remained scarce in the wood products industry since 2013. Industry interviews affirmed that one of the main occupations in high demand and scarce to the industry is saw doctoring. This involves the manufacturing, sharpening, installing and aligning saw blades and planer knives. It is a high level skill that is currently being developed into a trade by the FP&M SETA and Sawmilling SA at NQF level 6. Other scarce skills in the industry include kiln operators, boiler operators, wet mill supervisors and dry mill supervisors.

SETA-funded programmes aimed at the furniture sector have been well aligned to the needs of industry and have targeted scarce skills such as upholstery, cabinet making and furniture finishing.

The forestry sector has required a combination of lower level skills (such as bush clearers, cutters, planters, pruners and applying chemicals to weeds) and highly skilled tree breeders and scientists. Learnership and skills programme provision has in the main addressed the lower level skills. Given the large turnover in these jobs, large numbers of forestry workers have had to be trained. Diplomas and degrees specific to forestry and nature conservation have also been funded by the FP&M Seta.

Expert interviews with employers revealed that the occupational needs of the forestry sector differed according to the location of employers along the value chain. Distinctions were made between land owners and contractors. Contractors are the companies hired by the forest owners to come in to clear the land, plant trees and prune trees. The occupational needs of contractors include what may be classified as forestry workers. These are lower level skills at NQF level 2. It is worth noting that there is no absolute scarcity of foresters and forestry workers. Large numbers on low-skilled labour is easily sourced and trained through on the job training including short skills programmes in areas such as KwaZulu-Natal. Occupations that are scarce amongst forestry contractors are silviculture and harvesting machine operators. In addition, critical skills such as operational and production planning and management are required for occupations such as supervisors and foreman at an NQF level 3-4. Relative scarcity remains a concern in certain geographical regions. In Mpumalanga for example there are forests but no training providers so forestry workers become a relative scarce skill. Interviews revealed that land owners such as Mondi and Sappi have different skills needs, predominantly at higher NQF levels. Occupations such as tree breeders, entomologists and scientists are in high demand as well as scarce, as are forest managers. Training in these occupations are mostly through degrees and diplomas at NQF level 6 to 8. Forest managers also require a range of critical skills in the sector to manage forest contracts. Such skills may include skills in negotiating, contract development and resolution, entrepreneurship and an understanding of local skills development and industry needs. There are no programmes aimed at addressing the skills needs of forest managers and this is a limitation given the growth in forest managers emerging through land reclamation, land reform and BEE deals.

Table 10: Wood Products, furniture and forestry: scarce skills needs and programmes to address them

	2013/14	2014/15	2015/16
Wood Products Sub-Sector			
Wood Products scarce skills	<ul style="list-style-type: none"> Wood Machinist Wood Processing Machine Operator Saw Maker Saw Doctor Timber Treatment Plant Operator (Wood Preservation) Drying Technicians 	<ul style="list-style-type: none"> Saw Doctor Wood Products Engineer Wood Processing Machine Operator 	<ul style="list-style-type: none"> Machinist/Machine Operator
Wood Products: SETA-funded PIVOTAL programmes	Learnerships: <ul style="list-style-type: none"> Lumber Milling- Dry Lumber Processing; Lumber Milling- Green Timber Processing; Wood Products Processing; Wood Technology; Wood Products Processing; Wood Preservation; Wood Product processing; Charcoal Manufacturing 	Learnerships: <ul style="list-style-type: none"> Lumber Milling; Green Timber Processing; Lumber Milling: Dry Lumber processing; Wood preservation; Wood Product: Processing 	Learnership: <ul style="list-style-type: none"> Charcoal Making
	Bursaries: <ul style="list-style-type: none"> National Diploma in Wood Technology 	Apprenticeships: <ul style="list-style-type: none"> Electrical Engineering; Fitting and Turning; Millwright; Boiler Making; Diesel Mechanic; Electrician 	

	2013/14	2014/15	2015/16
Furniture Sub-Sector			
Furniture scarce skills	<ul style="list-style-type: none"> Upholsterer Cabinet Maker Furniture Finisher 	<ul style="list-style-type: none"> Wood Machinist Wood Finisher 	<ul style="list-style-type: none"> Upholsterer
Furniture: SETA-funded PIVOTAL programmes	Learnerships: <ul style="list-style-type: none"> Furniture Wood Making; Upholstery; Cabinet Making 	Learnerships: <ul style="list-style-type: none"> Furniture Wood Making; Upholstery; Cabinet Making 	Learnership: <ul style="list-style-type: none"> Furniture Making; Upholstery; Machining Cabinet Making
	Skills Programmes: <ul style="list-style-type: none"> Furniture Making; Upholstery 	Skills Programmes: <ul style="list-style-type: none"> Furniture Making; Upholstery 	Skills Programmes: <ul style="list-style-type: none"> Furniture Making; Upholstery
	2013/14	2014/15	2015/16
Forestry Sub-Sector			
Forestry scarce skills	<ul style="list-style-type: none"> Production/Operations Manager Forest Contractor Extension Forester Forest Scientist (Tree Breeding) Fire Fighter Logging Truck Driver Forest Worker Pest/Weed Controller 	<ul style="list-style-type: none"> Forest Scientist/Geneticist 	<ul style="list-style-type: none"> Forestry Worker
Forestry: SETA-funded PIVOTAL programmes	Skills Programmes: <ul style="list-style-type: none"> Application of Herbicides 	Skills Programmes: <ul style="list-style-type: none"> Application of Herbicides 	<ul style="list-style-type: none"> Skills Programmes: <ul style="list-style-type: none"> Silviculture; Brush-cutting in commercial forestry; Chainsaw Operation; Basic Safety in Forestry Environment; Application of Herbicides to Noxious Weeds
	Bursaries: <ul style="list-style-type: none"> NDip: Forestry; BSc. Forestry; NDip: Nature Conservation; Bachelor of Science in Forestry 	Bursaries: <ul style="list-style-type: none"> NDip: Forestry; BSc. Forestry; NDip: Nature Conservation; Bachelor of Science in Forestry 	Bursaries: <ul style="list-style-type: none"> Higher Certificate: Veld Fire Management; NDip: Forestry; NDip: Nature Conservation

4.6 Packaging and Pulp & Paper

Data shows that for packaging, scarce skills exist in a number of engineering, industrial design, managerial and supervisory levels. Extensive provision of apprenticeships addressing process and technical skills needs is evident during the period from 2013 to 2016 linked to the use of new technology, process innovation and materials within packaging. Managerial and supervisory skills may partly have been addressed via learnerships in business practice. A concern is that there have been no higher level qualifications funded to meet higher level skills needs and innovation in the sector.

According to industry experts in pulp and paper, chemical, electrical, mechanical and instrumentation engineers are all in scarce supply in the industry. These are usually degree (B.Tech.) and or diploma graduates. In addition to engineers, mid-level, chemical handling skills are in demand. Fitters and turners who build, repair and maintain equipment and machinery are also needed by the paper and pulp industry. These occupations are at an NQF Level 6. Presently, specialised, coded welders are being brought in from abroad as such skills are extremely scarce in South Africa. Coded welders are responsible for testing the strength and pressure of vessels as well as their safety. Although health and safety officers are in demand, these are regarded as critical skills required by production supervisors and managers, the latter also in scarce supply.

The majority of programmes addressing the skills needs of the pulp and paper industry funded by the FP&M SETA have been at mid to high level qualifications (apprenticeships, degrees and post-graduate degrees). Internships and work experience were also funded as part of various diploma and degree programmes in engineering and commerce, addressing technical as well managerial and supervisory skills needs reflected in the scarce skills list. There are no programmes (apprenticeships) for coded welders.

Table 11: Packaging and pulp & paper: scarce skills needs and programmes to address them

	2013/14	2014/15	2015/16
Furniture Sub-Sector			
Packaging scarce skills	<ul style="list-style-type: none"> • Production/Operations Manager • Industrial Engineer • Industrial Designer 	<ul style="list-style-type: none"> • Industrial Designer/ Structural designer • Research and Development Manager / New product developer • Quality Systems Manager / Quality controller 	<ul style="list-style-type: none"> • Production/ Operations Manager (manufacturing) • Production/ Operations supervisor (manufacturing)
Packaging: SETA-funded PIVOTAL programmes	<p>Apprenticeships:</p> <ul style="list-style-type: none"> * Lithography Paper Section; • Rotary Offset Machine Minding; Laminating; • Rotary Printing & Re-Reeling-Flexography; • Graue Machine minding; • Electronic Origination; • Roll Label Machine Minding; • Corrugated Board Printing & Finishing Machine Minding; • Fitting and Turning; Carton Making; Machine Minding Flexography; • Learner Paper Sacks Operator; • Learner Print Operator; • Learner SO Bag Technician; • Corrugated Board Manufacturing Machine Minding; Electrician; • Product Quality Laboratory Technician; Flexographic Printing 	<p>Apprenticeships:</p> <ul style="list-style-type: none"> • Corrugated Board Manufacturing Machine Minding; • Lithography - Metal Decorating; • Flexographic Gravoio; • Laminating Machine Minding; • Gravure Machine Minding; • Bag Making; • Fitter and Turner; • Electrical; • Machine Minding Packaging & Specialised Division; • Instrument Mechanician; • Mechanical Engineering <p>Learnerships:</p> <ul style="list-style-type: none"> • Business Practice 	<p>Apprenticeships:</p> <ul style="list-style-type: none"> • Corrugated Board Printing & Finishing • Machine Minding; • Electrical Engineering; • Rotary Printing & Re-Reeling Flexography; • End Making; • Can making; • Carton Making; • Lithography; • Roll Label Machine Technician; • Paper Sheetfed Lithographic Printing Technician; • Fitter and Turner; • Electrician
	2013/14	2014/15	2015/16
Paper & Pulp Sub-Sector			
Paper & Pulp scarce skills	<ul style="list-style-type: none"> * Production/ Operations Manager • Occupational, Health & Safety Trainer • Chemical Engineer • Process Engineer • Electrical Engineering Technician; • Chemical Plant Controller • Fitter & Turner • Paper Products Machine Operator • Paper & Pulp Mill Operator 	<ul style="list-style-type: none"> • Bio-refinery specialist; • Production / Operations manager; • Fossil Power Plant Process Technician; • Environmental and Occupational Health Inspector; • Industrial Designer/Design and Manufacturing Draftsperson; • Coded welders; • Wood scientists; • Chemical Plant Controller/ Plant controller; • Mill operator; • Chemical engineer; • Industrial Engineer/Process engineer 	<ul style="list-style-type: none"> • Process/Industrial Engineer • Materials Engineering Technologist • Production/Operations Manager (manufacturing) • Production/Operations supervisor (manufacturing)

	2013/14	2014/15	2015/16
Pulp & Paper: SETA-funded programmes	Bursaries: <ul style="list-style-type: none"> • Masters in Engineering; • Masters in Chemical Engineering; • NC: Pulp and Paper Technology 	Apprenticeships: <ul style="list-style-type: none"> • Electrical; • Machining and Tooling; • Electrician; • Electrical engineering; • Millwright; • Fitter and Turner; • Boilermaker; • Instrumentation; • Rigger 	Apprenticeships: <ul style="list-style-type: none"> • Fitter and Turner; • Millwright; • Electrician Learnerships: <ul style="list-style-type: none"> • National Certificate Manufacturing: Engineering and Related Activities Internships/work experience as part of the following programmes: <ul style="list-style-type: none"> • NDip: Mechanical Engineering; BSc. Electrical Engineering; BSc. Mechanical Engineering; BCom: HR; NDip: Internal Auditing; NDip: Accounting; BComm: Communications; NDip: PR Corporate Affairs; NDip: HR; LLB: Sustainability

4.7 Critical skills across sub-sectors

All FP&M SETA sub-sectors report investments in new technology, and training new staff to use such technology is therefore a key critical skills driver for the sector. Similarly, managers are required to lead the sub-sector in new business directions, to achieve the industrial restructuring required. Managers are therefore also an important focus for critical skills development. Many sub-sectors are competing in a global arena currently, and improved labour productivity is becoming an increasing priority. This too is a major critical skills driver. Table 7 lists key critical skills in the FP&M sector between 2013 and 2016. There have been no major changes to the critical skills needs of industry between 2013 and 2016, except for the growing need for design and innovation based skills. Through interviews with industry experts there were also views expressed surrounding the need for occupational health and safety as a critical skills need of managers and supervisors as well as business and contract negotiation skills amongst managers that run production plants and forests.

Table 12: A comparison of critical skills in demand across the FP&M sector 2013-2016

2013/14	2014/15	2015/16
<ul style="list-style-type: none"> • Directorship • General Management • Sales & Marketing Management • Finance Management • HR Management • Business Training Management • Production/Operations Management • Supply & Distribution Management • Information Management • Quality Assurance Management • Small Business Management • Facilities Management • Accounting • Occupational Training • Organisation & Methods Analysis • Risk Management 	<ul style="list-style-type: none"> • Coaching • Mentoring • Problem solving • Literacy and numeracy skills • Sales and marketing • SMME management skills • Information technology expertise • Supervisory / team leadership / junior management skills • Technicians – outcomes aligned to specific industries • Technologists – outcomes aligned to specific industries • Production planning – outcomes aligned to specific industries • Lean manufacturing • Operations management 	<ul style="list-style-type: none"> • Operations Management • Technology-related expertise • Design & Innovation • Supervisory/Team Leadership • Information Technology expertise • Project Management • Production Planning • Problem Solving (Estimating) • Coaching/Mentoring • Sales and marketing

4.8 Overall assessment

Scarce and critical skills tabled above reflect skills shortages in the FP&M sector, both low-level and high-level skills, which together have had a cumulative effect on industry over the past five years. Many manufacturing companies in clothing and textiles struggle to fill elementary positions such as pattern makers and machinists to sustain the growing demands of clothing retailers. Companies find it difficult to source mid-level, technical skills such as plant and machine operators, machine mechanics, technologists and technicians particularly due to mechanisation and changing technologies. An emerging skills need is that of high level qualifications in industrial engineering and industrial design linked to more efficient and cost effective production processes in labour intensive industries such as clothing and textiles.

Employers in print media and publishing struggle to fill professional occupations such as African language editing and digital publishing, with the latter including design, illustration, communication, language, and layout skills. There is good alignment between the scarce skills needs in furniture and the SETA-funded programmes. That said, there are no evident qualifications linked to furniture design being funded, an area targeted for its growth potential in the Industrial Policy Action Plan. A large number of forestry workers are being trained in low level skills such as bush cutting, pruning, planting and chemical spraying. Such training is addressing the needs of large forest contractors. The needs of the industry are different at other points of the value chain. For example, for land owners, scarce skills exist at higher NQF levels in tree breeding. There is also a variation of skills needs based on historical disparities within industry. Emergent forest managers that are growing through land reclamation processes, land reform and BEE deals require technical skills and business skills such as contract negotiation skills. In pulp and paper programmes funded by the FP&M SETA have been well aligned to the scarce skills needs of industry. For example, engineering skills needs are being addressed through apprenticeship, bursary and internship programmes, although engineering remains an occupation in demand for the country as a whole. The SETA has not addressed the scarcity of coded welders in the sector.

Scarce skills needs of industry have evolved in different ways over the three year period and will continue to do so over the years to come. SETA-funded learnerships, apprenticeships, skills programmes and bursaries are an important vehicle in the supply of Education and Training (E&T) in the FP&M sector. Over 80% of FP&M learners on learnerships are studying towards national certificates applicable to the clothing, textiles, furniture and forestry sub-sectors (Tracer Study, 2014). The majority of apprenticeships are conducted in the Printing, Packing and Pulp and Paper subsectors, with very few in Textiles and Clothing (Tracer Study, 2014). Given that the FP&M SETA can realistically only fund a finite number of programmes (based on the allocated budget), there has to be a pragmatic process of consultation between employers and SETA stakeholders on the prioritisation of SETA-funded programmes towards key, scarce skills needs. The approach by DHET towards the implementation of PIVOTAL programmes that are vocational, occupational, technical and or academic is an attempt to guide the prioritisation of funding scarce skills education and training by SETAs.

The consolidated three year scarce skills list was utilised as a baseline for the assessment of whether the funded learning programmes are aligned to sector needs or not. A range of qualifications were funded by the SETA between 2013/14 and

2015/16. These qualifications were in the main funded as a result of employers expressing interest for such funding to take place. It needs to be understood that one qualification can lead to different occupations and therefore there is not always a direct link between a qualification and a single occupation. The verification of qualifications against scarce skills includes identifying links between every qualification enrolled with the scarce skills list. This is needed to determine if the qualification can lead to a particular occupation and upon completion, a learner can take on a job in a particular occupation that has been identified as scarce skill. To achieve this level of detailed analysis will require the SETA to collect data in a slightly different way to how it is done currently. A recommendation is made in this regard that will enable this in future years. In the meantime available data was used and a common sense approach was adopted that aligns qualifications to occupations.

4.8.1 Learnerships

Between 2013/14 and 2015/16 the FP&M SETA funded 7339 enrolled learnerships. Of those funded by the FP&M SETA only 21 or 0.3% appear not to be linked with scarce skills whilst a further 24 have not been adequately defined in the source data. Those qualifications not linked with scarce skills include contact centre operations, domestic services, accounting, bookkeeping, wholesale and retail operations and administration.

4.8.2 Bursaries

24 out of 1269 bursaries (1.9%) could not be linked to the consolidated scarce skills list for the three years. These include qualifications in accounting, music, bookkeeping, consumer science and civil engineering.

4.8.3 Skills programmes

Between 2013/14 and 2015/16 there were 10249 skills programme enrolments that were funded by the FP&M SETA. Amongst these programmes, 11 or 0.1% could not be linked to either scarce or critical skills of the sector. The skills programmes not linked to scarce or critical skills include cleaner, dispatch clerk, managing personal finances and office administration.

4.8.4 Apprenticeships

Apprenticeship programmes take longer to implement and are more expensive to implement. There is a nationally agreed funding model across all SETAs and therefore it is vital that funds are committed adequately. Between 2013 and 2016 there were 655 funded apprenticeships. All of these (100%) can be linked to scarce skills and are thus considered relevant to the skills needs of employers in the sector.

4.8.5 Internships

Between 2013 and 2016 there were 1607 interns enrolled as part of SETA-funded internships. Internships made up 7 per cent of total commitments for the period. In the absence of a structured internship programme with clear learning outcomes it is difficult to determine if these internships are leading to employment in scarce skills occupations. This is because a TVET or University graduate can enter an internship programme and through exposure to the workplace find employment either in a scarce skill or generic occupation. It is suggested that the SETA put in place a process to tighten the link between funded internships and scarce skills occupations in the sector.

5. Revised preliminary PIVOTAL list

Part of the sector skills planning research process is to identify a list of PIVOTAL programmes that address scarce and critical skills needs within industry. This process of revising the existing PIVOTAL programme list of the SETA has begun as part of this study. Thus far, the following steps have been taken:

- The first step in developing this list of PIVOTAL programmes has been to validate and revise the occupations that are scarce or critical in the FP&M sector. The SSP research and interviews with industry experts have informed the revised set of 53 scarce and critical skills occupations. These occupations are listed in column 3 of the table below.
- The sub-sector that each scarce skill refers to is provided in column 1.
- Column 2 indicates the OFO code for each scarce skills occupation. The 2015 OFO list was used to validate this.
- Where appropriate, specialisations within these occupations are provided in column 4.
- Column 5 and 6 refer to the PIVOTAL programme as its associated level on the NQF that the SETA will implement to address the scarce skills occupations. At this stage an attempt has been made to provide generic programme types such as skills programme, learnership, apprenticeship, bursary or internship. However, there are gaps in the PIVOTAL programmes that need to be addressed upon further consultation with ETQA staff and skills planning staff within the SETA. Thus, a process of validations and revision of the PIVOTAL programmes will commence prior to the next part of this study. One of the weaknesses with this approach is that it fails to provide depth and exactness regarding the specific qualifications that the SETA is funding as part of implementing these interventions. As such, it is proposed that in the next stage of the research programme, the research maps out each education and training programme or intervention pathway against a particular scarce and critical skills occupation.

The last column provides the number of funded learning programmes (bursaries, internships, learnerships, apprenticeships and skills programmes) for each of the identified scarce skills occupations. Essentially the column provides the number of PIVOTAL interventions funded against each of the scarce skills.

It must be noted that in terms of allocating the training interventions to scarce skills occupations in the PIVOTAL table it has not been possible to allocate all the learning programmes successfully as there are large gaps in the SQMR data with respect to OFO codes. The data provided is in respect of the 2015/16 financial year up to the end of the third quarter and has some gaps. Efforts have been made to do the matching exercise. However it must be noted that this is an initial attempt and a detailed process is required for mapping FP&M SETA-funded programmes to actual occupations with their associated OFO codes, in order to generate better data for the purposes of evaluation and impact analyses. Going forward, all funding applied for must include a reference to associated OFO codes. This will alleviate the difficulty experienced with matching SETA-funded learning programmes to specific, scarce and critical skills occupations.

Table 13: Draft PIVOTAL programme list

SUB-SECTOR	OFO CODE	SCARCE SKILLS OCCUPATIONS	SPECIALISATION	NQF LEVEL	PIVOTAL PROGRAMME	Funded 2015 /16
All	121904	Contract Manager		Level 6	Bursary	0
All	121908	Quality Systems Manager	Quality Systems Coordinator Quality Auditor Quality Certification Manager Quality Control Manager Management System Auditor Quality Manager Quality Assurance / Systems Auditor	Level 6	Learnership Bursary Skills programme	0
All	122101	Sales and Marketing Manager	Sales Director Sales Executive	Level 6	Bursary Skills Programme	22
Forestry	131102	Production / Operations Manager (Forestry)	Forest Manager Plantations Manager Forest Logistics Manager Harvest Manager (Forestry) Timber Productions Manager Forestry Production Foreman	Level 7	Bursary Skills programme	79

All	132102	Production / Operations Manager (Manufacturing)	Operations Manager (Production), Plant Manager (Manufacturing), Works / Workshop Manager (Manufacturing), Planning Manager (Manufacturing)	Level 7	Bursary Skills Programme	74
CTFL / Forestry	134901	Environmental Manager	Pollution and Waste Manager, Agriculture and Forestry Coordinator, Land Care Manager,		Bursary	0
					Internship	
Publishing	134917	Publisher	Web Publishing Advisor	Level 7	Bursary	23
					Internship	
Forestry	213203	Forest Scientist	Forestry Consultant, Wood Technologist Silviculturist Wood Scientist Forestry Extension Officer Forestry Advisor Forestry Researcher Forest Pathologist Forestry Fire Specialist Forest Ranger	Level 8	Bursary Internship	29
Packaging & Paper & Pulp	213302	Environmental Scientist	Environmentalist	Level 6	Bursary	0
CTFL	214101	Industrial Engineer	Manufacturing Technology Engineer, Process Design Engineer, Operations Research Engineer, Manufacturing Logistics Engineer, Process Engineer, Industrial Efficiency Engineer	Level 8	Bursary Internship	2
CTFL	214102	Industrial Engineering Technologist	Manufacturing Technologist, Operations Research Technologist, Process Design Technologist, Process Technologist, Value Engineering Technologist	Level 7	Bursary	143
Paper and Pulp	214401	Mechanical Engineer	Industrial Machinery Engineer	Level 8	Bursary	7
					Internship	
Paper and Pulp	214501	Chemical Engineer	Chemical Engineer	Level 8	Bursary	8
					Internship	
Packaging	214907	Materials Engineer	Materials and Non Destructive Testing Engineer	Level 8	Bursary	0
			Material Sciences Engineer		Internship	
Packaging	214908	Materials engineering technologist	Materials and Non Destructive Testing Engineer, Materials and Non Destructive Testing Technologist, Materials Sciences Technologist, Materials Technologist	Level 7	Bursary Internship	0

Packaging / Paper & Pulp	215101	Electrical Engineer	Electrical Design Engineer, Control Engineer	Level 8	Bursary Internship	12
CTFL	216302	Industrial Designer		Level 8	Bursary Internship	0
CTFL	216304	Footwear Designer	Footwear Bottomstock Designer Footwear Bottomstock Engineer	Level 7	Bursary Internship	6
Publishing/ Print Media:	216602	Illustrator	Book Illustrator Technical Illustrator	Level 7	Learnership	0
Publishing/ Print Media:	216603	Multimedia Designer	Interactive Media Designer Digital Media Designer Multimedia Artist	Level 8	Bursary Internship	15
Packaging & Paper & Pulp	226302	Safety, Health, Environment and Quality (SHE&Q) Practitioner	Health and safety officer	Level 4	Learnership Skills Programme	0
All	242401	Training and Development Professional	Training Instructor	Level 5	Skills programme Bursary	318
Publishing/ Print Media:	251301	Multimedia Specialist	Digital Media Specialist	Level 8	Bursary	8
All	252902	Technical (ICT) Support Services Manager		Level 6		0
Publishing	264302	Book or Script Editor	Subtitle Translator-revisor	Level 6	Bursary Internship	0
Packaging / Paper & Pulp	311801	Electrical Engineering Technician	Electrical Engineering Laboratory Technician, Technical officer, Instrument Technician, Hydraulic Power Controller, Turbine Room Controller.	Level 6	Bursary Internship	0
All	312201	Production / Operations Supervisor (Manufacturing)	Assembly Supervisor, Beneficiation Plant Foreman, Manufacturing Foreman, Production Plant Supervisor, Shift Manager (Production)	Level 5	Bursary Skills Programme	324
Paper and Pulp	313301	Chemical Plant Controller	Chemical Process Technician Synthetic Fibre Control Room Operator Chemical-still and Reactor Operator Chemicals Fermentation Controller	Level 6	Bursary Internship	0
Forestry	314302	Forestry Research Technician	Silviculture	Level 6	Bursary Internship	0
Paper and Pulp	651201	Pressure (Coded) Welder		Level 4	Apprenticeship	0

Paper and Pulp	652302	Fitter and Turner	Industrial Mechanician	Level 4	Apprenticeship	105
Wood Products	652403	Saw Maker and Repairer	Saw Sharpener Saw Doctor Saw Setter	Level 4	Learnership	13
CTFL	653301	Industrial Machinery Mechanic	Apparel and Related Manufacturing Machine Mechanic , Agricultural Machinery Mechanic, Construction Machinery Mechanic, Construction Plant Mechanic, Footwear Manufacturing Machine Mechanic, Leather Manufacturing Machine Mechanic	Level 5	Apprenticeship	0
Printing	662202	Printing Machinist	Instant Printer Operator	Level 4	Learnership	
Printing	662203	Screen Printing Technician	Plastic Packaging Screen Printer	Level 5	Skills Programme	30
			Screen Printing Press Operator			
			Silk Screen Printer			
Paper and Pulp	682101	Wood Preparer and Treater	Dry Kiln Operator	Level 4	Learnership	329
Packaging & Paper & Pulp	682101	Wood Preparer and Treater	Dry Kiln Operator	Level 4	Learnership	329
Furniture	682301	Furniture finisher	Furniture Maker Wood, Furniture Restorer, Furniture Polisher	Level 4	Learnership	821
Wood Products	682303	Wood Machinist	Carving Machine Operator (Wood)	Level 4	Learnership	346
CTFL	683202	Patternmaker	Clothing Pattern Maker	Level 4	Learnership	53
			Footwear Pattern Maker			
			General Goods Pattern Maker			
Furniture	683401	Upholsterer	Furniture Upholsterer, Upholsterer and Sail Maker	Level 3	Learnership	773
CTFL	684901	Clothing, Footwear and Leather Processing Machine Mechanic	Spray Gun Mechanic (Leather)	Level 4	Apprenticeship	45
			Footwear Machine Mechanic / Fitter			
CTFL	715301	Sewing Machine Operator	Sewing Machine Attendant, Sewing Machinist	Level 4	Learnership	3906
CTFL	715302	Clothing, Textile and Leather Goods Production Operator	Textile / Leather / Material Cutting Machine Operator	Level 2	Skills Programme	219

Furniture	715302	Clothing, Textile and Leather Goods Production Operator	Upholstery machinist	Level 4	Learnership	219
CTFL	715501	Leather Processing Machine Operator	Leather Finishing Operator	Level 2	Skills Programme	82
CTFL	715602	Footwear Closing Production Machine Operator	Shoe Folding Operator	Level 3	Skills Programme	162

6. Conclusions

This study set out to:

- Identify the scarce skills occupations in demand in the FP&M sector over the period 2013-2015.
- Agree the PIVOTAL programmes that the SETA was prioritising during the period 2013-2015.
- Conduct an assessment of the FP&M SETA programmes that were planned and implemented to improve the supply of people to the scarce skills occupations. The purpose was to explore how successful the SETA was in delivering suitably qualified and competent people in priority scarce skills occupations.
- Review the PIVOTAL skills list so as to ensure that there is agreement on this as the SETA enters its 2016 planning period.

The report so far addresses a), b) and d). This section seeks to address c). In order to do this funded programmes are examined in terms of their relevance, efficiency, effectiveness and impact. Relevance is determined by a programmes alignment to occupational need. Efficiency looks at whether the programmes are being delivered in a speedy and cost effective manner. Effectiveness speaks to whether the programmes are achieving desired results. Impact looks at the programmes' immediate impact on learners and companies but also attempts to assess wider impact on the sector and the economy.

6.1 Relevance

The relevance of FP&M SETA-funded programmes over the period 2013 to 2016 was measured based on the allocation of SETA resources to programmes that address SSP priorities in relation to scarce and critical skills needs. The first part of the process in determining relevance was to map out the scarce skills across the FP&M sub-sectors in 2013, 2014 and 2015. Changes to these scarce skills were reflected where evident. The next step to determining relevance was to determine the number of learnerships, bursaries and skills programmes that were funded and or committed between 2013 and 2016 and to pull out those that did not relate to scarce skills identified. A total of 18857 learning interventions that were funded between 2013 and 2016 formed part of the assessment. From these, only 56 were considered to be not related to sector scarce skills needs. This equates to 0.3 per cent. By implication 99.7 per cent of FP&M SETA funded learning programmes are deemed relevant to real scarce skills needs within industry.

It needs to be emphasised that relevance is something that can only really be measured by looking into the actual content of the training and practice of those trained in a real work situation. It would appear from data, tracer studies, and interviews that the programmes funded are those that address identified need, which speaks to relevance. From the data available there is a strong relationship between the identified needs in the sector and the programmes that have been funded. However real relevance will only be established on the basis of interviews with employers, workers and providers which will be part of the next phase of impact evaluation. During that study there will be a need to examine the SETA-funded interventions in the context of the learning pathway for occupations in the sector and whether the learners qualifying from such programmes emerge with the skills needed by employers.

Another way of looking at relevance is appropriateness. In examining appropriateness there will need to be an examination of the specific programme that has been put in place. For example the learnership or apprenticeship addressing a specific occupational need – is it the most appropriate intervention in relation to the need? On paper it may look relevant and appropriate but in practice there may be different programmes available that are more appropriate. Answering such questions requires more in-depth research, including field work. This is planned as the next phase of this impact evaluation process.

6.2 Efficiency

After the SETA has committed funds on projects it is necessary that project management mechanisms are in place to ensure that such learning interventions are implemented on time, in the right place and in a cost effective manner. These are issues that will need to be examined at the point of delivery as part of the next stage. Efficiency in this paper has been explored by looking at the time it takes for committed funds to be spent by the beneficiaries and where there are delays the management decisions that are taken to reprioritise such scarce resources.

As was set out in section 3 of this report (see figure 5) there is a delay between committing of funds and the delivery of training. This may be unavoidable and is to some extent to be expected. However the reasons need to be investigated and the causes documented. The investigation should be along the whole chain from the advertising of grant criteria and processes through to formal awards of grants and programme implementation. Generally in an evaluation possible efficiencies can be identified which will enable the available funds to go further and deliver more to the sector. On the available evidence within the SETA there is relative efficiency (in that most of the available funds are being committed) but the flow of funds points to possible process issues that need to be explored.

6.3 Effectiveness

The effectiveness of FP&M SETA-funded programmes between 2013 and the end of December 2015 is measured according to the value that these programmes add to both the learners that complete them and employers who employ these graduates. This requires an in-depth impact evaluation study covering 2013 to 2016 for all SETA-funded interventions. This should include stakeholder consultation with all sub-sectors and learners. The Tracer Study conducted by the FP&M SETA sought to understand the effectiveness of learnerships and apprenticeships for the years 2010 to 2013. Further research is necessary to understand the effectiveness of bursary programmes and internships for graduates. In the absence of a structured internship programme with clear learning outcomes it is difficult to determine if these internships are leading to employment in scarce skills occupations. This is because a TVET or University graduate can enter an internship programme and through exposure to the workplace find employment either in a scarce skill or generic occupation.

The Tracer Study conducted by the FP&M SETA at the end of 2014 indicates that unemployment amongst unemployed learners reduced as the result of the learnership from 72% to 44%. Employability amongst graduates also improved after the learnership through providing learners with a better knowledge of industry. Success rates for apprenticeships were even higher. For example, 71% of the unemployed graduating from apprenticeships found employment. The earning potential of learners completing a learnership was on average R1400 more per month. For apprenticeships a learner's earning potential more than doubled upon completion of the apprenticeship (Tracer Study, 2014).

Similarly, the value-add of SETA-funded programmes for employers has been illustrated through improvements in productivity, particularly through apprenticeships, as well as vast improvements in the attitudes of learners toward work. 74% of employers surveyed as part of the 2014 Tracer Study recorded that learnerships had trained learners to be more multi-skilled and efficient whilst 82% felt that apprenticeships had a positive effect on company productivity. There were also strong correlations between employers perceived attitude of learners towards work upon completion of an apprenticeships. 81 per cent of employers indicated that the attitude of their employees towards work after completing an apprenticeship had improved.

The findings of the tracer study confirm the results of other research (HSRC review of NSDSII and other studies) that found learnerships and apprenticeships to be working well in terms of supplying needed skills for industry. In the next phase of the evaluation the impact of skills programmes, bursaries and internships will be examined more closely and effectiveness of all programmes will be further explored with learners, providers and employers. In particular just as the SETA is seeking to move from general statements on the effectiveness of "learnerships" or "internships" to address scarce skills needs, so the evaluation will explore which learnerships and internships have been successful in relation to specific scarce skills occupations and which have been less successful. It is for this reason that it is proposed not to attempt to evaluate all programmes in one evaluation, but to focus on some of the most widely available programmes that are addressing current and future scarce skills needs.

6.4 Impact

Impact is an extremely complex issue and is beyond the scope of this study. Given the demonstrated relevance and effectiveness of the programmes funded by the SETA and in particular the levels of employment of those graduating from funded programmes it does seem that impact is being achieved. However in answering the impact question the following questions need to be explored with stakeholders:

- To what extent are companies becoming more productive and profitable as a result of the efforts of the FPM SETA and its programmes?
- Have SETA funded programmes assisted in strengthening the sector and its sub-sectors? Is the sector stronger and better placed for the future as a result of education and training interventions.
- To what extent have SETA programmes impacted on unemployment and the employability of young people?
- What is standing in the way of greater impact? On learners, on workers, on companies and on industries?

These questions need to be explored in the context of the wider efforts of government and industry bodies to expand employment and grow the economy, but they also need to be explored at the level of the enterprise that is either participating in, or benefiting from SETA-funded programmes. It will be this type of research that will be conducted in the next phases of this impact study. This report provides important baseline data upon which to move to that next stage.

7. Recommendations

The following recommendations are suggested as the result of this research.

7.1 Impact evaluation

The mainly quantitative evaluation needs to be taken further and specific programmes identified for in-depth impact evaluation. This report should feed into, and provide the baseline information for, the next stage of the impact and evaluation study. The study should examine the extent to which programme implementation has been relevant, efficient, effective and impactful. It may also be useful to look at sustainability – whether the current approach to addressing scarce and critical skills needs is sustainable in the medium to long term.

7.2 Scarce skills list refinement

The proposed scarce skills list for 2016 needs further engagement with stakeholders to ensure that the 2016/17 SSP reflects accurately the needs of all sub-sectors. This should feed into the 2016 SSP review process. It will also identify the priority programmes for in-depth impact evaluation.

7.3 Refinement of data

Data limitations such as missing OFO codes need to be corrected in order to align PIVOTAL programmes with scarce skills occupations. In the short term this can be done by an internal SETA process as part of the SSP review in 2016. In the longer term all occupationally directed programmes (i.e. all programmes with the exception of those addressing generic critical skills) should be linked to an OFO code.

7.4 Refinement PIVOTAL list

The draft PIVOTAL programmes list needs to be taken to another level - namely clarifying the programmes for each occupation. The SETA needs to move from defining general programme types in the list to actual programmes. Again the OFO link will assist in this.

7.5 Scarce skills in the wider economy

The issue of scarce skills located in other sectors needs to be researched. Although certain programmes have been judged to not be related to scarce skills occupations (for example, accounting and book keeping), some may be scarce but not be the responsibility of FP&M SETA. It is important that all scarce skills occupations and programmes to address them are identified and an approach developed to address these. This could be part of developing inter-SETA partnerships along value chains.

7.6 Career guidance review

There may be a need to review the career paths and career advice arising from the changing priority occupations in the sector. The SETA should put in place a process to examine whether the advice given to young people seeking to enter employment in the sector takes account of the PIVOTAL list once it is agreed.

7.7 Communicating within the sector

The SETA may need to publicise and promote PIVOTAL programmes among stakeholders in each sub-sector to ensure clarity over the purpose and nature of these programmes.

FUTURE PERFECT SKILLS DEVELOPMENT

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