

18 June 2020

Director of Employment Equity
Department of Employment and Labour
Attention : The Honourable Chairperson Ms Ntsoaki Mamashela - ntsoaki.mamashela@labour.gov.za
The Commission of Employment Equity
Via : The Chairperson Ms Tabea Kabinde - tabea@wefindtalent.co.za

Dear Sirs / Madam

EMPLOYMENT EQUITY BILL OF 2018, AND PROPOSED TARGETS FOR THE CONSTRUCTION SECTOR, AS TABLED BY DOEL.

The South African Forum of Civil Engineering Contractors (SAFCEC); as a significant Construction Sector stakeholder, submitted comments relating to the Act above, when it was published in draft during the commentary period. SAFCEC have had no feedback to our constructive engagement, and none of our commentary appears to have been considered. In addition, we are aware of the submission by BUSA, representing South African Business at NEDLAC of 21 November 2018; where it was noted that the consultation process that had taken place at NEDLAC has also not been taken into consideration.

We attended a meeting on 28 February 2020 at the DOEL, where a presentation of the proposed targets for the Construction Sector were presented.

This submission is in response to both the EE Bill and its potential consequences, and to the targets suggested by the DOEL on 28 February. Attached to this submission discussion document, is a data analysis which is referenced, and provides more in-sight and explanation to the Items discussed. Reference **ANNEXURE A** attached

1. Firstly, it must be acknowledged that SAFCEC shares the concern by the Commission for Employment Equity on the lack of equitable representation at Top and Senior levels in the Business Sector. It is our sincere hope that once the specifics of our industry are understood in this submission; that SAFCEC has the opportunity to workshop solutions to the challenges experienced. Our commitment to Transformation is evidenced by the highest Black

ownership, Procurement and Employment Equity targets in the Amended Construction Sector Codes.

2. This commitment is further evidenced by the Construction Sectors percentage of the largest EAP grouping, being African Male at Top Management, being almost double that of the private sector average **REF ITEM 1**.

3. The proposal to use the EE targets contained in the Amended Construction Sector Codes in the Construction Sector for their company EE Targets is considered disingenuous, for the following reasons:

- There are 5 elements in a Scorecard so Companies can invest in other elements of the scorecard to make up scoring in the event of unforeseen EE events, (like key staff attrition)- i.e. additional spend on Training and the Company can still have a scorecard and win state tenders.
- The Construction Sector Codes (CSC) encompass Built Environment Professionals (BEP) whose business operational parameters and conditions are very different to Contractors.
- The CSC also include Suppliers to the Construction Industry, eg cement suppliers, steel companies, brick manufacturers; who report under different Sectors to the DOEL.
- The DOEL EE report can never be used for a scorecard audit – “to reduce red tape” as suggested during the DOEL presentation. Scorecards expire at all times and audits are done on previous years financials, ensuring that 2 elements are measured in the month of audit, ie ownership and employment equity. DOEL EEA2 reports are submitted at the end of each year, with possibly different employment statistics during the next years scorecard audit.
- Black owned business with turnover less than R50m do not have employment equity measured for their scorecard, but are most likely employing more than 50 employees. They will now be required to conform to the industry targets in order to do state business.
- Regional Contracting Companies can elect to be measured on Regional EAP targets in their scorecard, while DOEL requires National EAP targets (*refer* **ITEM 9**).

4. The decimation of the Construction Industry during this recession, prior to the Covid pandemic, has been catastrophic. It is untenable therefore that further prohibitive measures are now being contemplated to prevent Contractors engaging in State Contracts via the requirement to have a Compliance Certificate. In this regard, the following must be considered:

- Legislation is being tabled giving the Minister power to issue regulations prior to these regulations being agreed?
- The consideration and acceptance of "acceptable circumstances", for not achieving targets and determining the issuance of a Compliance Certificate when companies submit their EEA2 reports.
- The implementation measures allowed by DOEL inspectors, and the circumstances of revoking a Compliance Certificate which effectively puts a Contractor out of business, and the real possibility of abuse and corruption attached to this situation
- What measures are being contemplated to penalise other businesses in the private sector, who do not meet their Plan, but do not require a Compliance Certificate as they do not engage in State Contracts? The table below will illustrate the performance of Construction vs Private Sector Average vs Proposed DOEL Targets – (extract from **ITEM 1.**)

INDUSTRY	LEVEL	AFRICAN		COLOURED		INDIAN		WHITE		F NATIONALS	
		M	F	M	F	M	F	M	F	M	F
CONSTRUCTION	Top	13.8	5.3	5.5	2	5.9	2.5	55.9	6.7	2.2	0.3
	Senior	17	6.5	6.3	2.1	5.8	1.8	46.2	11.3	2.5	0.5
Private Sector Average	Top	7.0	3.9	3.2	1.9	7.1	2.9	56.4	13.2	3	0.5
	Senior	10.8	5.9	4.7	3.2	7.7	4.1	41	19.1	2.7	0.8
DOEL Proposed Sector Targets	Top	25.9	25.9	3.2	3.2	0.9	0.9	20.0	20.0	0.0	0.0

5. The perception and interpretation of member companies that these targets in numerical form assume the prescription of quotas, in contravention of the Constitution and the ILO 111 Convention, which poses the very real prospect of legal challenge.
6. **ITEMS 2 and 3** in the attachment outlines the legislative requirements for the selection of Operational staff in Senior and Top Management in Construction Companies and the education and qualifications required. **ITEM 4** is current data showing the small pool of candidates available for selection in these positions, irrespective of race and gender. The lack of equitable representation at Top and Senior levels is accepted as being a direct result of past injustices in Education, but cognisance has to be made of these facts when ascribing targets.

7. **ITEM 5** compares the comparison of actual race percentages of qualified candidates vs the DOEL proposed targets at Top Management, showing that these will take at least 20 years to achieve,
8. **ITEM 6** shows the gender gap in Construction and Engineering, with no available statistics in which Sector of Engineering these Registered Female Professionals are employed. These statistics are for all women, yet DOEL require EE stats that reflect demographics.
9. **ITEM 7** shows detail of the talent pool at lower management levels, which is a positive sign for the future.
10. **ITEM 8** details the restriction on all youth pursuing academic qualifications and the current situation in our Education system, where excellence in Maths and Science is mostly achieved in private schooling. This situation is a great source of concern because it indicates that unless there is immediate redress, then under privileged children may forever be trapped in a cycle of poverty, despite the best intentions of the CEE, and the efforts of industry.
11. **ITEMS 10 and 11** described the complexities in Legislation and Tender rules that are unique to Construction and also the cyclical nature of Construction that require permanent adjustment to employment figures. These include prescriptive tender requirements for "local" employment, and the requirement to sub-contract contracts to Emerging Contractors. These factors further illustrate the need for Contractor- specific "acceptable **reasons**" to deviate from a Contractors EE Plan; which will form part of the EEA2 annual submission to DOEL.

The final Item is the attached document is repeated here to further emphasise the need of our Industry to engage and workshop the good intentions of the DOEL and the CEE, with accurate information and research.

SAFCEC would like to actively engage with both DOEL and CEE to explore interventions that overcome the issues presented in this document; and it is believed that this can take place with further study and information sourcing.

It is considered that meaningful engagement can take place when the following information is obtained by the Council of Employment Equity (CEE)

1. Economic projections based on present data and post Covid.
2. Statistics of the attrition rate in Construction must be considered, together with the recent decimation of the industry.
3. Professional bodies like ECSA and CESA must be required to submit stats of registered Professionals per Engineering and Construction Sector, together with race and gender for

accurate knowledge of the candidate pool available at each Level of Management, and whether these professionals are located in Construction Companies or Consulting Engineers.

4. It must be accepted that any target setting for Contractors and Consultants cannot be the same, nor can this be applicable to Construction Material Suppliers who fall under the Construction Sector Codes, but report under "Manufacturing" on their EE reports to DOEL.
5. Tertiary institutions should be required to make submissions to the CEE regarding their enrolment and graduation stats in terms of qualifications / race / gender and nationality. This will form the basis of future modelling for all economic sectors.
6. Similarly, the Department of Education should be required to make submissions to the CEE regarding their enrolment, throughput and Grade 12 pass rate in terms of race, gender, nationality and subjects that enable registration for engineering.
7. For construction, an analysis of the current CIDB Company registrations per Grade can be used to model the future industry requirements in terms of engineers and related professions upon which realistic targets can be set.
8. Local vs National demographic targets must be taken into consideration.
9. Contractual requirements that enforce the employment of local labour, typically on a fixed-term contract basis equivalent to the duration of the Contract does not lend itself to long-term permanent work opportunities and related career development. These must be considered in Procurement Legislation.
10. The combined affects of legislation must be viewed in totality to measure the affect on Construction Companies who rely on State Contracts, ie The Procurement Bill, B-BBEE Act and the Employment Equity Act.
11. Prior to the acceptance of changes to the EE Bill; the proposed Regulations, that the Bill will empower the Minister to enforce; must be published for Public comment.
12. The reporting mechanism, that identifies "acceptable reasons" for failure of a Company not to achieve their plan, must be discussed and agreed. Like wise the power of the DOEL officers to investigate Companies and withdraw certificates of Compliance must be clearly identified, agreed and published.
13. To enable rational and considered decision making, it is proposed that an independent institution such as a academic institution offering construction management or a business

school be commissioned to collect, collate, interpret and report on the data sets required to firstly set and review targets and subsequently plot performance.

Finally, we trust that this extensive response is accepted in the spirit of constructive engagement and the willingness to engage and find solutions; now that the reality of our industry has been outlined in detail

We hold ourselves available to clarify any issues contained in this communication if required.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Webster Mfebe', with a large, stylized initial 'W' and 'M'.

Webster Mfebe
Chief Executive Officer

South African Forum of Civil Engineering Contractors

Schedule of Annexure Items

**Submission to the Department of Labour and the Commission of Employment Equity
Regarding The Employment Equity Amendment Bill as well as the Associated Setting of
Sector Specific Guidelines to the Construction Industry**



ITEM 1

STATISTICS EXTRACT FROM LAST AVAILABLE EE REPORT 2018-2019 ¹

(PERIOD 2019 -2020 NOT YET PUBLISHED)

The table below indicates comparative statistics of top and senior management from different industries (excluding state owned enterprises) percentages, highlighting the comparison between construction and other sectors.

INDUSTRY	LEVEL	AFRICAN		COLOURED		INDIAN		WHITE		F NATIONALS	
		M	F	M	F	M	F	M	F	M	F
Agriculture	Top	5.8	2.0	2.7	1.9	1.1	0.3	72	13.3	0.8	0.1
	Senior	9.1	3.5	4.3	2.1	1.5	0.8	58.1	19.4	1.1	0.2
Mining	Top	20.5	7.1	2.6	0.7	2.5	1.2	54.3	7.8	3	0.4
	Senior	21.9	5.8	2.5	0.8	4	1.9	51.6	8.8	2.3	0.4
Manufacture	Top	5.8	3	3.3	1.6	9.3	2.8	58.7	10.4	4.5	0.5
	Senior	9.7	4.5	5.8	2.9	9.7	4	44.7	15.4	2.9	0.5
CONSTRUCTION	Top	13.8	5.3	5.5	2	5.9	2.5	55.9	6.7	2.2	0.3
	Senior	17	6.5	6.3	2.1	5.8	1.8	46.2	11.3	2.5	0.5
Retail Motor	Top	4.7	2	3.3	2	8.9	2.8	59.8	14.8	1.4	0.2
	Senior	11	6.3	6.4	4.8	8.4	4	38.2	19.3	1.2	0.4
Commercial	Top	4.7	2.8	2.7	1.4	10.7	3.7	55.9	14.7	2.8	0.6
	Senior	9.5	5.6	4.4	3.7	11.1	4.9	37.7	20.2	2.3	0.6
Catering	Top	8.9	5.6	2.4	2.3	4.5	2.4	49.3	20.4	3.6	0.8
	Senior	14.2	11.2	4.5	5.2	4	2.8	29.5	25.1	2.5	1
Transport	Top	11.5	6.4	3.4	2.4	9.4	4.2	46.7	11	4.6	0.4
	Senior	15.4	8.2	4.9	2.9	9.6	4.5	33.9	15.6	4.1	0.9
Finance	Top	9.4	5.7	2.7	2.3	5.8	3.4	50.3	16.2	3.3	0.9
	Senior	10	7.8	3.7	3.4	7.7	5.8	35	22	3.2	1.4
Private Sector Average	Top	7.0	3.9	3.2	1.9	7.1	2.9	56.4	13.2	3	0.5
	Senior	10.8	5.9	4.7	3.2	7.7	4.1	41	19.1	2.7	0.8

ITEM 2

LEGISLATIVE REQUIREMENTS FOR PROFESSIONAL ENGINEERS AND CONTRACT MANAGERS, IN SENIOR AND TOP MANAGEMENT POSITIONS

The **Occupational Health and Safety Act and Construction Regulations** ⁴ place onerous obligations on line managers in construction companies. This is done for good reason as **construction projects are high risk environments with the potential to harm employees and members of the public**. Recent high profile safety incidents within our industry attest to this. It is evident that investigations into these incidents also focus on the competency of site managers as well as temporary works inspectors and designers.

The onerous obligations and consequences faced by construction company line managers and leaders require competent persons and at the core of the requirement lies the definition of competence as defined in the Construction Regulations which read as follows:

“**competent person**” means a person who-

- (a) has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National **Qualification Framework Act, 2000 (Act No.67 of 2000)**, ⁵ those qualifications and that training must be regarded as the required qualifications and training; and
- (b) is familiar with the Act and with the applicable regulations made under the Act;

The above definition prohibits people without recognised qualifications to be appointed under the act. Of particular importance in the career path and appointment scope of construction company leaders at the professional, senior and top management levels is the clause 8.1 appointment of construction manager which is defined as:

“**construction manager**” means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site;

The appointment obligation is described as :

- 8. (1) A principal contractor must in writing appoint one full-time **competent** person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor.
- (2) A principal contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.

Also of importance in the professional and senior management levels will be appointments as construction supervisor defined as:

“**construction supervisor**” means a **competent** person responsible for supervision construction activities on a construction site;

Contractors have design responsibilities often undertaken on site by construction employees at professional and senior manager levels. This either where they manage design and construct projects, do temporary works design or supervise and inspect temporary works design. For these functions the appointment as designer is of importance where:

“**designer**” means-

- (a) a competent person who-
- (i) prepares a design;

- (ii) checks and approves a design;
- (iii) arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
- (iv) designs temporary work, including its components;
- (b) an architect or engineer contributing to, or having overall responsibility for a design;
- (c) a building services engineer designing details for fixed plant;
- (d) a surveyor specifying articles or drawing up specifications;
- (e) a contractor carrying out design work as part of a design and building project; or
- (f) an interior designer, shop-fitter or landscape architect;

These persons must be professionally registered with ECSA and are specifically referred to in the regulations as:

“Professional Engineer or Professional Certificated Engineer” means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the **Engineering Profession Act, 2000 (Act No. 46 of 2000);** ⁶

“Professional Technologist” means a person holding registration as a Professional Engineering Technologist in terms of the Engineering Profession Act, 2000; ⁶

ITEM 3

REGISTRATION REQUIREMENTS

The Engineering Professions Act of 2000 ⁶ places further obligation on registered persons in professional, senior and top management positions in construction companies. In addition, requirements by **clients and insurers of construction companies** and projects require that leaders be registered with professional bodies.

The Engineering Council of South Africa (ECSA) identifies work that may only be done by professional persons in accordance with the Engineering Professions Act. This should include certain roles and responsibilities of construction engineers.

The ILLUSTRATIVE career path table, below, serves to illustrate the time and background in meeting candidacy requirements prior to registration that must be gone through. Only once registered can such persons be appointed under the regulations and start gaining experience at the particular level on site. This is then followed by further appointments overseeing many sites usually at a senior management position and thereafter at a top management position.

ILLUSTRATIVE TYPICAL CAREER PATH TABLE

Professional Qualification	4- 5years of study	Minimum entrance- requirement: Advance 70% Math and science at 60% plus	5 years
Candidacy program for Professional Registration	Minimum 5 years	Minimum entrance requirement: <ul style="list-style-type: none">• Professional Qualification• Structured Mentorship programme	10 years
Middle Management	5 to 10 years	<ul style="list-style-type: none">• Professional work experience and further academic development• On the job Coaching programme	10 - 15 years
Senior Management	Minimum 5 years at Middle Management level	<ul style="list-style-type: none">• Broader business experience and academic development• Leadership development	15 – 20 years
Top Management	Minimum 5 years at Senior Management level	In depth strategic and business development experience and professional development	20-25 years

The table above illustrates that it could take from 15 to 20 years for a construction leader to reach senior and top management levels coming through the ranks. It thus follows that senior and top managers that wrote their Senior Certificate, Gr 12, exam in 2000 to 2005 are only now at the levels of senior management. The pool of incumbents from designated groups is small given the numbers leaving school with adequate maths and science marks, (refer to **ITEM 8**) showing maths pass rates in 2002). This pool was by no means fully available to the construction market and is contested by other industries offering much better salaries, working conditions with lower responsibility levels.

Construction companies rarely appoint persons to line management positions and ultimately senior and top management without the incumbent having undergone the above process. This is driven by the requirement that construction leaders need to meet statutory prescripts and be able to lead teams who require valuable industry experience, and can make contractual, bidding and commercial decisions based on their broad experience.

This philosophical argument is often counteracted by corporates who believe leading construction companies is simply a management function not requiring specific construction experience. The track record of organisations holding this belief is evident in failures of large construction businesses here and abroad where leadership lose touch with the business of construction and the soul of the

construction people employed at all levels in the organisation. Senior and top management in particular must make critical bidding, technical, safety, contractual and commercial decisions which are not similar to normal management tasks. These require the prerequisite experience. Ultimately the failure of the company negatively impacts firstly all the employees and then of course the shareholders and the national economy.

ITEM 4

CURRENT STATISTICS OF REGISTERED PROFESSIONALS – (REQUIRED BY LEGISLATION TO HOLD TOP MANAGEMENT OPERATIONAL POSITIONS IN CONSTRUCTION COMPANIES)

CESA ² published the number of registered professionals in the industry. **By far the most do not work in construction companies!** From statistics it is difficult to sometimes isolate Civil Engineers which should be considered in isolation when considering our industry

Table 1: Professional Category Registration Statistics

Professional Engineer		
		Total Registrations to date
TOTALS		21446
Gender	Male	20315
	Female	1131
Race	Black	2338
	White	17932
	Indian	926
	Coloured	250

STATS EXTRACT REF 2

SACPCMP		
3. Professional Construction Manager (910)	910	
Black - 158	158	17.36%
White- 676	676	74.29%
Indian - 38	38	4.18%
Coloured -38	38	4.18%
Female - 18	18	1.98%
Male- 892	892	98.02%

STATS EXTRACT REF 3

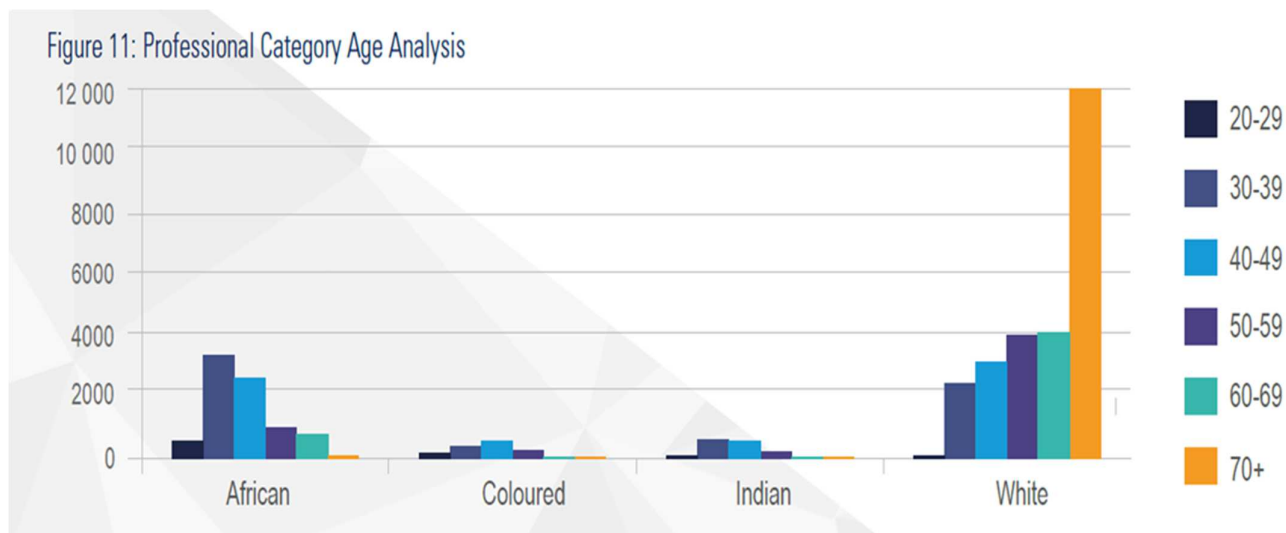
In terms of legal requirements the above figures show that there are a total of **3 514** black Registered Professional Engineers in **all fields of engineering, not just civil engineering, much less construction**, a total of **16.4 %**. The number of black registered Professional Construction Managers totals **234** .

The total number of CIDB Construction companies Grade 7 to 9 requiring certified Professionals total **3040**.

If you compare the number of professionally registered SACPCMP Construction Managers with the number of Construction Companies in the (CIDB 7 -9) category, there is less than one (1) registered professional for every two (2) companies. These stats take into account all persons registered as a

Professional Construction Managers across race and gender. If you remove the white people from this equation, the figure drops to a staggering low figure of less than one (1) for every 10 companies.

This is further illustrated when the age and race of registered professionals is reviewed:²



ITEM 5

COMPARISON OF ACTUAL RACE PERCENTAGES VS PROPOSED DOEL TARGETS *Comment on Race Target (African) TOP MANAGEMENT*

It was suggested by the Department of Education and Labour at a Construction Industry presentation on 28 February 2020, that agreed new EE targets in Construction should be aligned to those contained in the Revised Construction Sector Codes ⁷.

This document has illustrated in great depth; the requirement for Registered Professionals in Top Management positions in construction companies. It is therefore appropriate again to look at these Top Management Targets vs Industry available candidates.

In **ITEM 4**, industry statistics show the total number of registered professionals in race and gender categories. The statistics are of all registered Professional Engineers in all categories ie mining, electrical, mechanical etc and therefore only a small percentage will be in the construction industry. It is from this category that Top Management must align with proposed Construction Sector Code Targets.

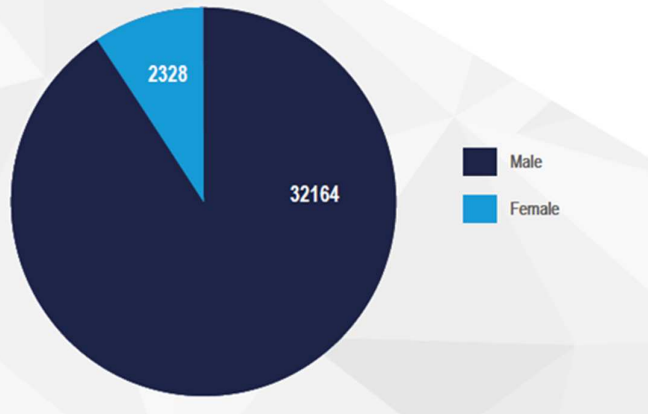
The stats show all industry **African = 10.9%** DOEL suggested target is **51,8%** (African male and female).

ITEM 6

GENDER ISSUE IN CONSTRUCTION

Few women, of all races qualify as Engineers, and those that do usually join Consulting Engineers not Construction Companies. The registration statistics of women from CESA #②, are shown below:

Figure 2: Professional Category Registration Statistics By Gender and Category



Actual Females percentage of **all races** = **7.2%**
 Proposed DOEL target at Top Management = **30%, excluding white females**

The chart above reflects the status of Females, in all race groups and all categories of Engineering that will be eligible for Top Management positions.

ITEM 7

DEMOGRAPHICS AT LOWER MANAGEMENT LEVELS

It is encouraging to note that the pool of candidate percentages at lower management levels is more equitably represented. The statistics below show the candidate positions that would hold Junior Management positions, as follows:

SACPCMP		
4. Candidate Construction Manager (684)	684	
Black - 381	381	55.70%
White- 227	227	33.19%
Indian - 32	32	4.68%
Coloured - 44	44	6.43%
Female - 115	115	16.81%
Male- 569	569	83.19%

STATS EXTRACT REF 3

Table 2: Candidate Category Registration Statistics

Candidate Engineer		
		Total Registrations
TOTALS		10287
Gender	Male	8035
	Female	2252
Race	Black	4118
	White	4712
	Indian	1173
	Coloured	284

STATS EXTRACT REF 2

ITEM 8

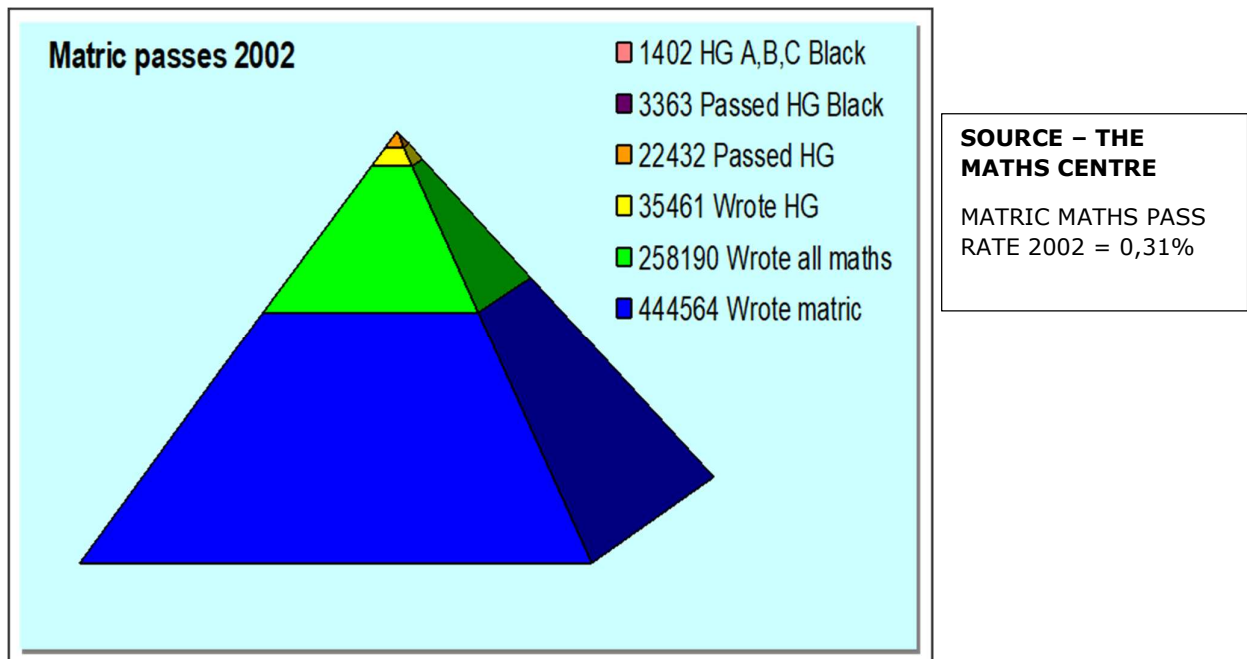
OUTPUT OF SCHOOL CANDIDATES

It is evident that the shortage of skills at Top and Senior Management to equitably represent the population is a direct result of past injustices in education; and the fact that this has changed at junior levels is a source of encouragement. There is no Sector that is more concerned about the standard of Education in our country than the Construction Sector that faces skills shortages at all levels of management on a daily basis.

Although some political commentary may dismiss the Education issue as a convenient deflection tactic of "Old Pale Males" the current situation must be urgently addressed by the Commission of Employment Equity. **This situation affects the future of every South African child, but mostly those from disadvantaged communities who cannot afford costly private education.**

The following issues reveal the issues of contention and concern specific to the Construction Sector as follows:

- 8.1 The previous discussion regarding the Contracting growth and development period will show that the current occupants of positions at Top Management levels would rely on candidates who matriculated from 2000 – to 2005. The black maths pass rate in 2002 is shown below:



- 8.2 The point of departure is an enabling Secondary Education, how many students graduate from Grade 12? Below is a table representing the 2017 – 2019 Grade 10 to Grade 12 throughput rate:

Source: <https://www.news24.com/SouthAfrica/News/da-eff-dispute-2019-matric-pass-rate-say-real-number-is-much-lower-20200108>

Province	Class of 2019				
	Grade 10 (2017)	Grade 12 (2019) candidates	% Grade 10 2017 writing NSC 2019	Total Gr 12 candidates passed	"Real" Pass Rate (%)
Eastern Cape	139 962	63 198	45,2	48 331	34,5
Free State	58 933	25 572	43,4	22 602	38,4
Gauteng	188 069	97 829	52,0	85 342	45,4
KwaZulu-Natal	240 713	116 937	48,6	95 017	39,5
Limpopo	168 847	70 847	42,0	51 855	30,7
Mpumalanga	93 136	43 559	46,8	34 995	37,6
North West	62 766	26 819	42,7	23 272	37,1
Northern Cape	24 008	9 138	38,1	6 990	29,1
Western Cape	75 646	50 404	66,6	41 502	54,9
National	1 052 080	504 303	47,9	409 906	39,0

The Statistics of the 2017 Grade 12 results shows that only **9.2%** or approximately **236 000** achieved an average of above **70%**, **irrespective of race and gender**. In the 2019 matric class only **2,5%** or **4415** learners, **of all races**, achieved between 80 and 100% for mathematics, and these students will be shared between medicine, engineering, and commerce.

8.3

Why does this matter?

The drop in numbers of pupils writing the grade 12 mathematics exam should be of great concern. Performance in mathematics matters for university entrance. Without it, school leavers are not eligible for programmes at university in science or engineering or some in commerce. A decline signals the closing of the doors of opportunity in these fields to a growing number of students. This will only increase inequality. Economics researcher Nic Spaull's research has shown that the top 200 high schools in the country produce 97% of the mathematics distinctions. The majority of these schools charge significant fees.

The deterioration in performance is also of great concern. Getting a pass (30%) may secure a diploma or university entrance but these low pass marks will not prepare students to succeed at mathematics at university level.

This development runs contrary to the needs of the fourth industrial revolution, which requires highly competent graduates in the science, technology, engineering and maths areas. Strong performance in mathematics is essential for careers in computing, programming, finance and machine learning.

Source: <https://theconversation.com/why-south-africas-declining-maths-performance-is-a-worry-129563>

In order to have any chance of passing Engineering at University, the minimum matric requirement is as follows:

UCT and Stellenbosch Civil Engineering Entry Requirements:

OFFER LEVELS FOR AN ACADEMIC PLACE			
	BAND A Admission Guaranteed	BAND B Admission Likely	BAND C Admission Possible
	<i>All applicants</i>	<i>All applicants</i>	<i>Targeted redress race groups 1 and 2 only</i>
Chemical Engineering	FPS 510 Mathematics ≥ 80% Physical Sciences ≥ 70% NBT scores of Proficient for AL, QL and Maths	WPS 480 Mathematics ≥ 80% Physical Sciences ≥ 70% NBT scores of Intermediate or Proficient for AL, QL and Maths	FPS 420 Mathematics ≥ 80% Physical Sciences ≥ 70% NBT scores of Intermediate or Proficient for AL, QL and Maths
Civil Engineering	FPS 500 Mathematics ≥ 75% Physical Sciences ≥ 70% NBT scores of Proficient for AL, QL and Maths	WPS 480 Mathematics ≥ 75% Physical Sciences ≥ 70% NBT scores of Intermediate or Proficient for AL, QL and Maths	FPS 450 Mathematics ≥ 75% Physical Sciences ≥ 70% NBT scores of Intermediate or Proficient for AL, QL and Maths

8.4

Amnesty International reported on the *State of Education in South Africa* in March 2020– extracts of their findings, contained in the press, claim that:

*It found that “more than three-quarters of children aged 9 could not read for meaning in some provinces. Out of a total of **100** pupils that start school, 50-60 would make it to matric, 40 – 50 would pass matric, and only **14** would go to university.”*

The skills of thousands of teachers, in specialist areas such as maths and science, were questionable, as they were either unqualified or under-qualified. “A study in March 2018 found that South African teachers could not pass simple mathematics and English tests, with some scoring as low as 10% for English first additional language and 5% for mathematics” it said.

ITEM 9

GEOGRAPHIC FOOTPRINT OF CONSTRUCTION COMPANIES

Construction companies in South Africa vary widely in the scope of services as well as geographic footprint. A very large number of companies operate in a constrained geographical footprint and are, in some cases, limited to a particular greater metropolitan area or province. This is dictated by their ability and capacity to maintain effective management and control over large distances coupled with logistical challenges and cost of operation.

As a consequence of the above, the application of a national, provincial or even greater municipal EAP impacts both recruitment and the eventual possible employment equity profile of the enterprise.

The wholesale application of a national EAP in target setting and measurement would thus prejudice companies and give rise to exceptions.

The sector targets must take regional EAP’s into account.

ITEM 10

FACTORS DESTABILISING THE EMPLOYMENT PROFILE OF CONSTRUCTION COMPANIES RELATED TO ECONOMIC ACTIVITY

The highly volatile nature of the construction market forces construction companies to frequently adjust their levels of employment. This complicates long term career and, frequently employment equity planning. This must be taken into account when establishing targets and considering how motivations for not reaching sector targets will be handled.

The Basic Conditions of Employment Act which regulates retrenchments and alternatives thereto normally favours long term employees at the cost of employment of shorter term employees which impacts employment equity planning significantly.

Procurement legislation and **tender rules** frequently limit the ability of an employer to move staff onto site where local employment and sub-contracting targets are contractually dictated. This impacts the deployment of a long term permanent workforce and reduces permanent positions with the commensurate career development and promotion prospects.

The **requirement to sub-contract** large portions of the work impacts the employment profile of established contractors without significantly enhancing the employment profile of smaller sub-contractors not able to offer the required career paths.

The above factors are unique to construction companies and contribute to the motivation of establishing separate targets for construction companies.

ITEM 11

CYCLICAL NATURE OF THE CONSTRUCTION INDUSTRY

Consideration should be given how the matter of a cyclical and volatile construction economy is going to be dealt with, as drastic reductions in employment cannot always follow the EAP when a market is in decline. The economy is in recession with Construction experiencing a drastic contraction prior to the Covid pandemic.

The non-issuing of a Certificate of Compliance , or the withdrawal of this, will have a devastating effect on construction companies, in many cases prohibiting them to trade totally. This further exacerbates an economic downturn and will lead to wholesale job losses in the company.

The mechanism and enforcement of both the issuance and withdrawal of Compliance Certificates must be thoroughly ventilated and agreed prior to enforcement.

ITEM 12

CONSIDERATIONS IN THE PREPARATION OF MEANINGFUL CONSTRUCTION INDUSTRY EE TARGETS

SAFCEC members make an effort in supporting extensive technical training and bursary support in an attempt to alleviate the academic shortfalls that entrants to this industry may be facing. This is evident in the requirements of the Amended Construction Sector Codes.

Likewise SAFCEC would like to actively engage with both DOEL and CEE to explore interventions that overcome the issues presented in this document; and it is believed that this can take place with further study and information sourcing.

It is considered that meaningful engagement can take place when the following information is obtained by the Council of Employment Equity (CEE):

1. Economic projections based on present data and post Covid.
2. Statistics of the attrition rate in Construction must be considered, together with the recent decimation of the industry.
3. Professional bodies like ECSA and CESA must be required to submit stats of registered Professionals per Engineering and Construction Sector, together with race and gender for accurate knowledge of the candidate pool available at each Level of Management, and whether these professionals are located in Construction Companies or Consulting Engineers.
4. It must be accepted that any target setting for Contractors and Consultants cannot be the same, nor can this be applicable to Construction Material Suppliers who fall under the Construction Sector Codes, but report under "Manufacturing" on their EE reports to DOEL.
5. Tertiary institutions should be required to make submissions to the CEE regarding their enrolment and graduation stats in terms of qualifications / race / gender and nationality. This will form the basis of future modelling for all economic sectors.
6. Similarly, the Department of Education should be required to make submissions to the CEE regarding their enrolment, throughput and Grade 12 pass rate in terms of race, gender, nationality and subjects that enable registration for engineering.
7. For construction, an analysis of the current CIDB Company registrations per Grade can be used to model the future industry requirements in terms of engineers and related professions upon which realistic targets can be set.
8. Local vs National demographic targets must be taken into consideration.
9. Contractual requirements that enforce the employment of local labour, typically on a fixed-term contract basis equivalent to the duration of the Contract does not lend itself to long-term permanent work opportunities and related career development. These must be considered in Procurement Legislation.
10. The combined affects of legislation must be viewed in totality to measure the affect on Construction Companies who rely on State Contracts, ie The Procurement Bill, B-BBEE Act and the Employment Equity Act.
11. Prior to the acceptance of changes to the EE Bill; the proposed Regulations, that the Bill will empower the Minister to enforce; must be published for Public comment.
12. The reporting mechanism, that identifies "acceptable reasons" for failure of a Company not to achieve their plan, must be discussed and agreed. Like wise the power of the DOEL officers to investigate Companies and withdraw certificates of Compliance must be clearly identified, agreed and published.
13. To enable rational and considered decision making, it is proposed that an independent institution such as a academic institution offering construction management or a business school be commissioned to collect, collate, interpret and report on the data sets required to firstly set and review targets and subsequently plot performance.

REFERENCES

- 1 19th Commission for Employment Equity Annual Report 018/209
- 2 Annual Report 2018/2019 Engineering Council of South Africa
- 3 South African Council of Project and Construction Management Professionals – updated Stats issued by Executive 2 April 2020
- 4 Occupational Health and Safety Act 181 of 1993
- 5 National Qualification Framework Act 2000 (Act 67 of 2000)
- 6 Engineering Profession Act 2000 (Act 46 of 2000)
- 7 Amended Construction Sector Codes of 1 December 2017 , gazette 41287 (Notice 931 of 2017)
- 8 Basic Conditions of Employment Act 75 of 1997

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