



Working Paper: 0005

BEE TARGETS FOR THE ACCOUNTING PROFESSION – QUO VADIS?

A Working Paper

by C Mulder, University of Stellenbosch Business School

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ACKNOWLEDGEMENT

The Department of Trade and Industry (DTI) issued codes of good practice on broad-based black economic empowerment for the private sector, built around sectoral charters. The accounting profession is seriously concerned about the quantitative norms set by the DTI for the profession in terms of qualified black people. This Working Paper is based on a home-assignment for Qualitative and Quantitative Futures Research Methods and received a distinction from the lecturer, Prof Eon Smit. It evaluates the number of black CAs which the country is likely to produce by 2010 by conventional quantitative forecasting to evaluate the realism of public expectations about qualified black accountants. We thank Charlene for her valuable contribution.

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TABLE OF CONTENTS

	Page	
1	Introduction	1
2	Brief Overview of the Requirements for Admission to the Profession	2
3	The Objective of the Forecast	3
4	Determining the Forecast Scope	4
5	An Overview of the Data	4
5.1	Number of Qualified CAs by Race	5
5.2	Number of Candidates Currently in Training	6
5.3	Consideration of the Available Data	8
5.4	Pass Rate of Black Candidates who wrote admission examinations	10
5.5	Number of Students in the Accounting	11
5.6	Historical Performance of the Universities in the Admission Examinations	12
6.	Conclusion	13
	List Of Sources	13

List of Figures

1:	Number of black CAs for the period January 2002 to October 2005	5
2:	Number of black CAs as percentage of total CAs	6
3:	Comparison of total trainees to number of black trainees	7
4:	Black trainees as percentage of all trainees	7
5.1:	Part I: Pass rate for black candidates expressed as percentage of total successful candidates	10
5.2:	Part II: Pass rate for black candidates expressed as percentage of total successful candidates	11

List of Annexures

A:	Number of black CAs per SAICA for period January 2002 to October 2005
B:	Number of black CAs as percentage of total CAs per SAICA for period January 2002 to October 2005
C:	Number of black and total trainees per SAICA for period January 2002 to October 2005
D:	Preliminary forecast of number of black CAs by October 2010
E:	Preliminary forecast of number of black trainees by October 2010
F:	Preliminary forecast of total trainees by October 2010

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1. INTRODUCTION

During December 2004, the Department of Trade and Industry (DTI) issued Codes of Good Practice (the codes) on broad-based black economic empowerment (BEE). The aims of the codes, as set out in Statement 000, were to position BEE as a tool to broaden the country's economic base and to accelerate growth, job creation and poverty eradication. Private sector enterprises have to consider the principles and guidance contained in the codes when implementing BEE, as these would outline the key expectations of state organs and public entities in their economic interactions with the private sector (Department of Trade and Industry: 2004).

In short, failure on the part of a private entity to adhere to the codes could result in government's refusal to contract with that entity. Yet, for private sector enterprises the implications stretch further than only their dealings with government, as private sector enterprises are already enforcing considerations similar to the principles contained in the codes in their dealings with one another.

Statement 010, dealing with sector transformation charters, recognises that BEE will not work without the support and co-operation of the private sector. Sector charters are put forward as one way in which such co-operation could be established.

The charters would need to address the following:

- BEE challenges for the sector;
- Sector's vision for achieving BEE targets and timetables;
- Specific mechanisms to be used to achieve BEE targets including skills development, employment equity, preferential procurement, enterprise development, and any additional mechanisms appropriate for the specific sector;
- Institutional and management mechanisms that will co-ordinate, facilitate, monitor and evaluate the implementation of the charter; and
- Any other relevant issues and commitments specific to the sector.

The accounting profession took the initiative to develop its own charter prior to the DTI's announcement of the codes, and was hoping to have had the document completed in mid 2005. The expectation was that the charter will play an important role towards establishing the measures that must be put in place to meet BEE targets.

However, the codes, and the BEE targets that will be set for the profession in terms of the charter, have forced the accounting profession to extend its deadline for finalising the charter. That is because the DTI has yet to finalise the codes of good practice for the profession. Early indications are that the required representation of

black chartered accountants (CAs) will be set at at least 20 per cent of accountants by 2010; this against the backdrop of a current number of black CAs of below 10 per cent.

Stakeholders in the accounting profession, which include the Big 4 firms (PricewaterhouseCoopers ("PwC"), KPMG, Ernst & Young and Deloitte), medium size firms, black firms, the Auditor General, a number of representative bodies such as the Association for the Advancement of Black Accountants of South Africa (ABASA), as well as membership bodies such as the South African Institute of Chartered Accountants (SAICA), and regulatory bodies such as the Independent Regulatory Board for Auditors (previously the Public Accountants' and Auditors' Board (PAAB) and the Financial Services Board (FSB), now ask whether these targets are attainable given the available information regarding the number of qualified person, persons in training as well as students who might qualify by 2010.

To illustrate why the charter poses serious concerns and challenges for the accounting profession, consider the following statistics contained in an article posted on the website of ABASA (it should be noted that the ABASA article refers to "black" as African black, and for purposes of this paper the same meaning will be ascribed to the term):

- There are 23 493 CAs in South Africa, of whom 543 are black, or one black CA out of every 43;
- There are only 178 black female CAs in South Africa;
- As at June 2005, 1 491 out of 9 332 accounting trainees are black; 689 of these trainees are black women; and
- On average, every year 100 black CAs qualify.

In light of the above, there is a sense that the anticipated BEE target of 20 per cent black CAs by 2010 have not been based on a considered evaluation of the current situation, or a realistic expectation of what may be achieved in terms of the training of black CAs over the next five years. As a result, stakeholders in the profession have recognised the need for a forecast of the number of black CAs which the country is likely to produce by 2010.

In what follows, the route to qualification as CA will be discussed briefly. Thereafter, the forecast process using quantitative techniques will be discussed.

2. BRIEF OVERVIEW OF THE REQUIREMENTS FOR ADMISSION TO THE PROFESSION

Historically, candidates could qualify as CAs only after having successfully completed three years' training and passing a two part admission examination. The training was preceded by a three year full time undergraduate course in the accounting stream, followed by a one year full time honours degree. Through part time studies, the academic qualifications would take longer to achieve.

There is also the possibility of converting other academic qualifications into a postgraduate accounting qualification, which will then be followed by the training and admission exams, or doing academic articles (which entails one academic year and two years' traineeship).

Since 2000, it has also become possible for candidates to qualify via a financial management route, as opposed to the above process, referred to as the audit route. The financial management route have attracted increasing numbers of students - a total of 27 students sat for these exams in 2000, whilst the number has increased to 87

candidates in 2004 who achieved an overall pass rate of 67 per cent in the November 2004 examinations (Bridge-David, S: 2005). All indications are that this route will continue to deliver growing numbers of CAs, but currently candidates who qualify in this manner comprise a very small percentage of the total candidates who enter the profession annually.

For purposes of this working paper, references to candidates will be to candidates following the audit route, and the time frame within which candidates will be expected to qualify will be deemed to be the following:

- Three years undergraduate studies;
- One year post graduate studies; and
- Three years traineeship (during which time the admissions examinations will be successfully concluded).

3. THE OBJECTIVE OF THE FORECAST

The focus of the forecast will be black persons who have attained the CA qualification. At this stage, it appears that the BEE targets in the charter will be broad based, i.e. the target will not merely be set for a percentage of black CAs to hold positions as *partners* in accounting firms. Rather, it will most likely include targets at various levels for persons who have obtained, or are in the process of obtaining, the qualification, eg. at partner, managerial and trainee levels. (Incidentally, should black partnership have been the requirement, there might have been a time delay between the date of a candidate qualifying as CA and the time of appointment as partner – a factor which would influence the forecast.)

The targets, whether it will be for the percentage of qualified black CAs or for the percentage black CAs in partnership positions, are interpreted to imply that the accounting firms, as primary employers of CAs, need to take active steps to employ the target percentage of black CAs by the target date.

Because the target for black CAs is expressed as a percentage of the total number of CAs, the forecast will include data relating to black, Indian, coloured and white prospective and successful CAs.

The targets set by the charter will affect the Big Four firms more than the medium sized firms. This is because the target percentages imply that the number of black CAs to be employed will be harder to meet as the size of the firm increases.

For example, for PwC, which currently has 245 partners in South Africa, of whom 14 are black, a target of 20 per cent black ownership will translate into 49 black partners on the current partner numbers (PricewaterhouseCoopers, 2005:2).

However, the accounting profession is expected to grow. Consider that the South African economy is managed and expected to grow by 6 per cent per annum. Should such growth be achieved, it is expected that the demand for accounting services will also grow substantially. This implies that the 20 per cent black target will be calculated on a further increased number of CAs overall.

For the accounting firms, a forecast of the number of black students who will complete their studies, enter traineeship and qualify by 2010, will have the objectives outlined below:

Firstly, the forecast will help quantify the expected shortfall in the number of black CAs by 2010 against the targets which will likely be set in the charter for that date. Equally important, the forecast should help these firms to quantify the number of black students who need to be trained, and to direct their efforts to attract sufficient numbers of students to the profession.

From the perspective of the membership bodies of the accounting profession, most notably SAICA, it is expected that the forecast will also identify the problem area(s) in the education and training process which may prohibit candidates from achieving the qualification. For example, discrepancies between the pass rates of candidates at university level and at board examination level may indicate problems at specific universities.

4. DETERMINING THE FORECAST SCOPE

The forecast will deal with the following:

- The number of black CAs who will likely have qualified by 2010; and
- The percentage of CAs who will be black by 2010.

The forecast horizon will therefore be five years, and annual forecasts will probably be sufficient.

Against the backdrop of the BEE targets which are expected to be set for 2010, and considering the fact that it takes on average seven years (3 years undergraduate studies plus one year post graduate studies plus three years traineeship) before a prospective CA will qualify, an immediate forecast is required. Such a forecast will be based on the current number of CAs, trainees and students. The long period required for the training of candidates for the profession, and the fact that the academic year for full time students follow the calendar year, makes an immediate forecast imperative.

5. AN OVERVIEW OF THE DATA

In order to achieve the objectives of the forecast, data relating to a number of areas will be required.

The current position relating to the number of CAs:

- The number of qualified CAs in South Africa, analysed by race; and
- The number of black CAs in South Africa, expressed as a percentage of the total number of CAs in South Africa;

The potential position relating to candidates in training who may qualify within the next three years:

- The number of trainees registered with SAICA, per year of traineeship, analysed by race; and
- The number of trainees who passed the qualifying examinations (Part I and II), analysed by race;

The potential position relating to students in the accounting stream who may qualify within the next 4-7 years:

- The number of students currently following the accounting stream, per university, per year of study, analysed by race.

The historical performance of the universities who offer degrees relevant to the qualification:

- The pass rates for both parts of the admission exam, analysed by race and by university from which the student graduated.

The available data in respect of each of the above will be discussed in more detail below.

5.1 NUMBER OF QUALIFIED CAS BY RACE

The data relating to the total number of CAs who qualified in South Africa and the total number of candidates who are registered with SAICA are maintained by SAICA. This information is available on the SAICA website (www.saica.co.za) for the period January 2002 to October 2005, and is analysed by race and updated on a monthly basis. Data for the period prior to 2002 is not available on the SAICA website, but should be obtainable via SAICA.

SAICA does not have exact figures relating to the number of CAs who are not registered with SAICA, or the number of CAs who have left South Africa after qualifying, although they estimate that currently between 200 and 250 CAs are not registered with SAICA.

The data relating to the number of black CAs for the period January 2002 to October 2005 is summarised in Annexure A. A graph of this data series is set out in Figure 1.

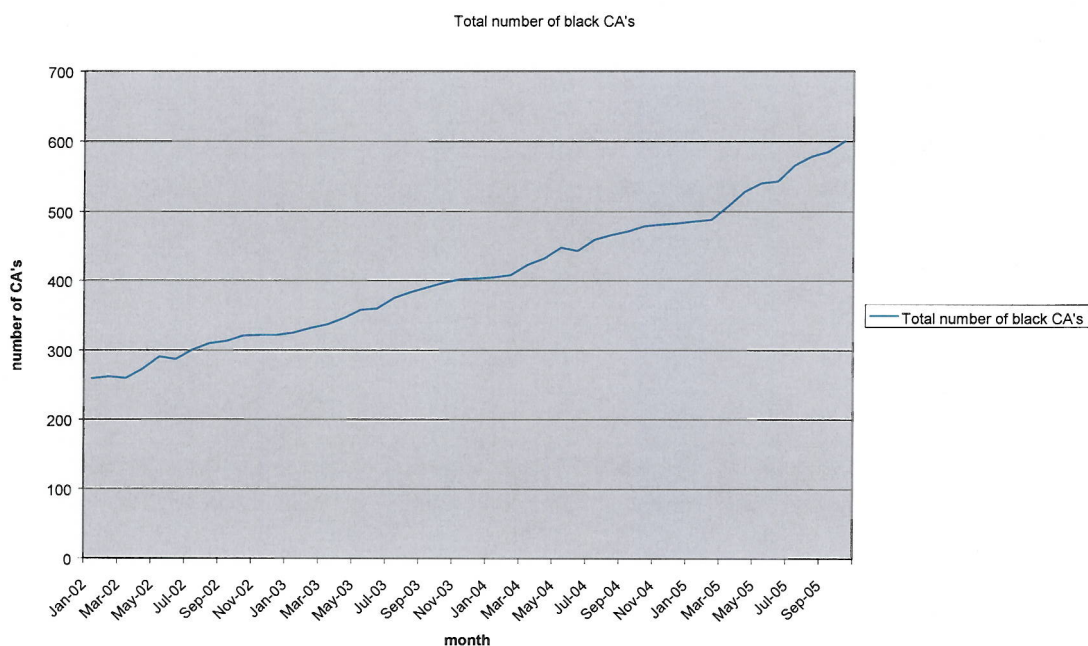


Figure 1: Number of black CAs for the period January 2002 to October 2003

Source: SAICA

The data series in Figure 1 shows a positive trend as well as a cyclical pattern, but no seasonality.

Because it is expected that the BEE targets for black CAs will be expressed as percentage of the total number of CAs in South Africa, the increase in the number of black CAs showed in the chart above, expressed as a percentage of the total number of CAs for the corresponding period, is set out in Annexure B. A graph of this data series is set out in Figure 2.

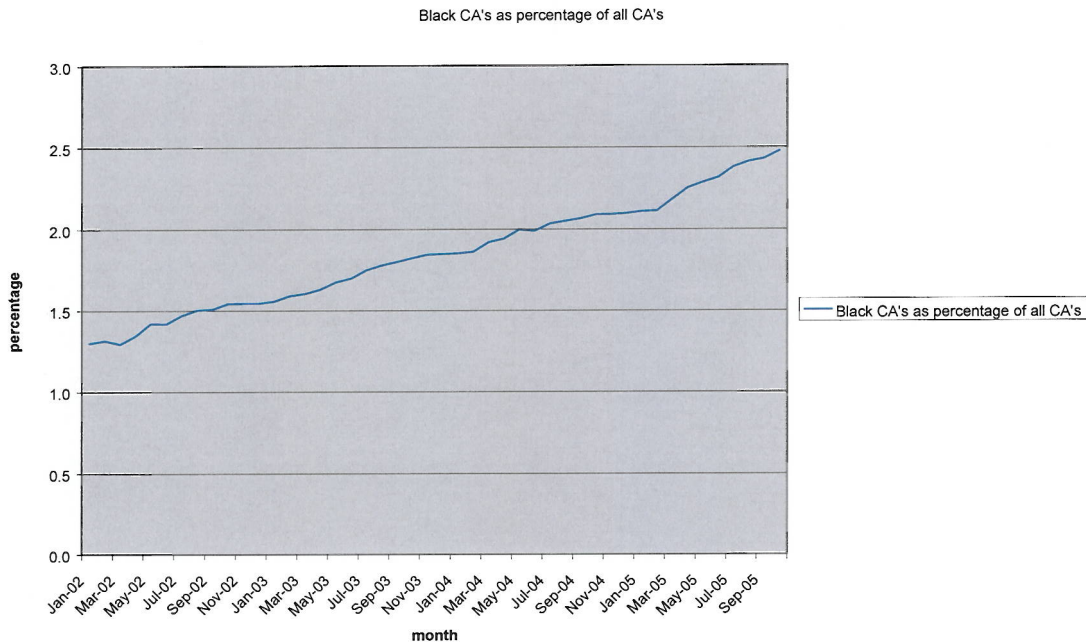


Figure 2: Number of black CAs as percentage of total CAs

Source: SAICA

As in the case of the total number of black CAs, the data series in Figure 2 shows a positive trend and a cycle, but no seasonality.

5.2 NUMBER OF CANDIDATES CURRENTLY IN TRAINING

All traineeship agreements are registered with SAICA, and accordingly the data relating to the number of candidates who are currently trainees are also available from the SAICA website. This data is available for the period January 2002 to October 2005, is analysed by race and updated on a monthly basis. Data for the period prior to 2002 is not available on the SAICA website, but should be obtainable via SAICA.

For the reasons set out above, the historical data relating to the number of black trainees need to be viewed in conjunction with the total number of trainees. The data maintained by SAICA are summarised in Annexure C, and a graph of this data series set out in Figure 3.

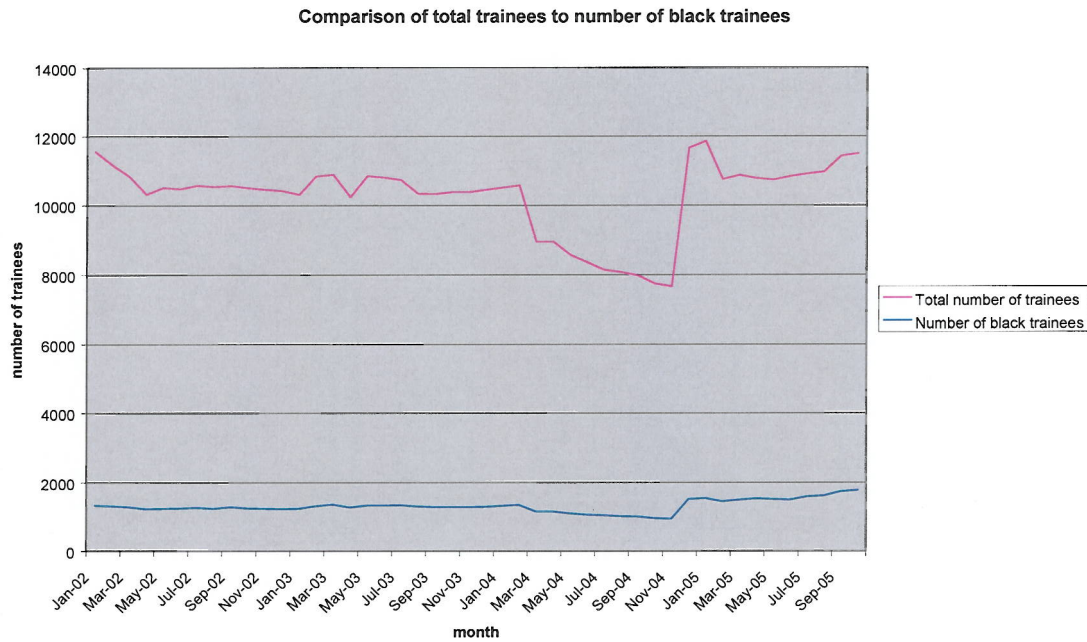


Figure 3: Comparison of total trainees to number of black trainees

Source: SAICA

The data series in Figure 3 relating to the total number of trainees is stationary, because it is essentially flat for the period considered. This series contains no seasonality or cyclical components, but can be said to contain irregular components.

The data series relating to the total number of black trainees, expressed as a percentage of the total number of trainees, is set out in the graph in Figure 4.

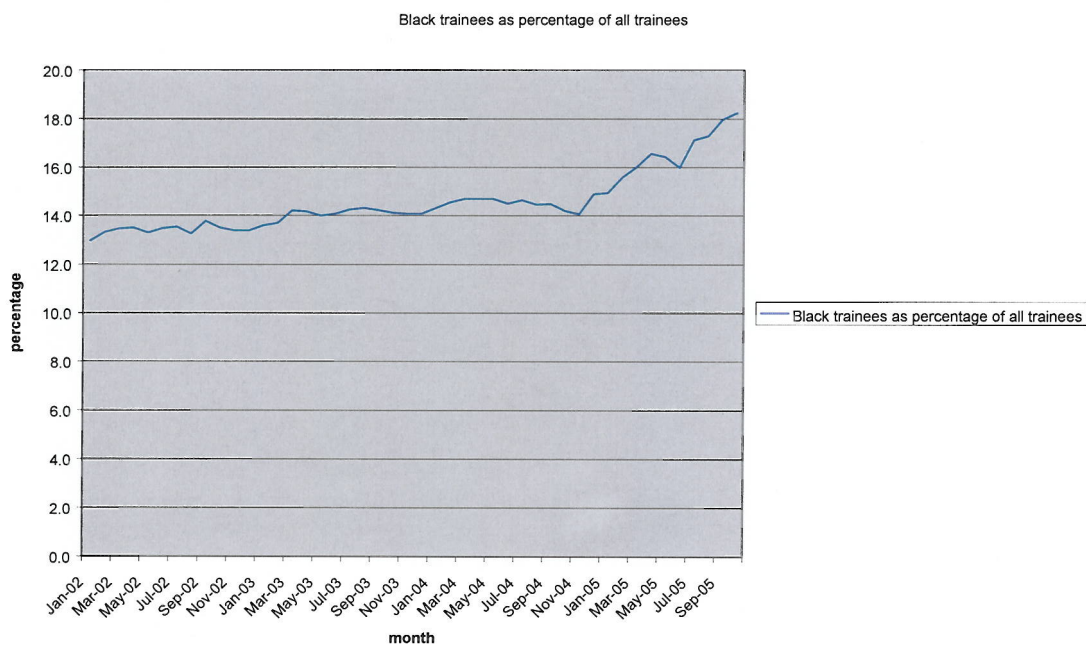


Figure 4: Black trainees as percentage of all trainees

Source: SAICA

The data series in Figure 4 shows an upward (positive) trend that appears to be accelerating, hence indicating a non-linear trend. There also appears to be a cyclical component to the series, as well as seasonality, in that the percentage of trainees shows a peak at April every year, which is typically the month in which the training contracts of trainees commence.

5.3 CONSIDERATION OF THE AVAILABLE DATA

The data series discussed above are readily available and are directly relevant to the forecast problem, namely the likely number of black CAs by 2010, and the percentage of total CAs that these black CAs will comprise.

Complete data series relating to the racial composition and pass rates of trainees who wrote the qualifying exams, the universities from which these students graduated, as well as the numbers and racial composition of students currently studying in the audit stream, are not readily available. The limited data series that are available will be dealt with in a later section.

In the interim, a further consideration of the series set out in Figures 1 to 4 is required, as the data pattern will determine which forecasting technique is appropriate.

Both Figures 1 and 2 show a positive linear trend with cyclical components, but no seasonality. It appears that the data series shown in Figures 1 and 2 are driven by a positive linear trend. Therefore, it may be appropriate to use the following forecast models:

- Holt's exponential smoothing;
- Linear regression trend;
- Causal regression; or
- Time-series decomposition

However, because of the cycle component, i.e. the upward and downward movements of data around the long-term trend, the latter two may be better than the first two (Wilson, 2002: 55). However, there does not appear to be a variable which is dependent on other variables in this data series, and accordingly time-series decomposition appears to be the most appropriate model.

The data series in Figure 3 relating to the total number of trainees is essentially stationary, even though there is a slight decline in the total number of trainees, namely from 10 229 in January 2002 to 9 721 in October 2005. It might accordingly be necessary to use dispersion to get a clearer understanding of the data series (Wilson, 2002: 59).

The fluctuations in this series are irregular or random. Refer for example the sharp decline in the total number of trainees during December 2004, followed by the sharp increase in trainee numbers during January 2005.

It appears that the data series relating to the total number of trainees is driven by stationarity (Wilson, 2002: 53). The following forecast models therefore may be appropriate:

- Simple exponential smoothing;
- Adaptive response exponential smoothing; or
- ARIMA

Because of the medium to long forecast horizon, the ARIMA model may be better suited to perform the forecast (Wilson, 2002: 387).

The data series in Figure 4 appears to be driven by a positive non-linear trend, although the series also displays seasonality and cyclical components.

The following forecast models might be appropriate:

- Non-linear regression trend;
- Causal regression trend; or
- Time-series decomposition

Due to the presence of trend, seasonal and cyclical patterns in the data series, time-series decomposition might be the most appropriate forecast model to use (Wilson, 2002: 387).

Preliminary forecasts have been made in respect of the data series in Figures 1,2 and 4, using time series decomposition (attached in Annexures D and E). Based on these preliminary forecasts, the position in October 2010 will be as follows:

- 1 628 black CAs;
- 30 100 CAs in total;
- 5 per cent black CAs;
- 6 218 black trainees;
- 8 447 trainees in total; and
- 54 per cent black trainees in total.

The above forecasts may indicate that a forecast based on the current number of black CAs need to be refined to reflect increased efforts and focus on the training of black CAs. Such increased efforts may in turn explain the numbers forecast in respect of black trainees, which show a marked increase.

The forecast of a relatively small increase in the number of black CAs versus the forecast number of black trainees also highlight the time delay between the training of potential CAs and the time at which they qualify.

A preliminary forecast has also been made in respect of the data series on the total number of trainees in Figure 3, using the ARIMA / Box Jenkins model (attached in Annexure F). Comparing the forecast figures for 2010 in respect of the number of black trainees (1 772) and total trainees (9 721) to the figures forecast using time series decomposition, demonstrates the differences in result which may follow on the use of a different forecast models.

Due to the focussed efforts from the stakeholders to increase the number of black CAs, as well as the medium to long forecast horizon, a forecast model which accommodates non-linear trends such as the non-linear regression trend model or time-series decomposition model will be considered.

However, it is not believed that a meaningful forecast can be performed without additional data, set out below, which, unfortunately, is not readily available.

5.4 PASS RATE OF BLACK CANDIDATES WHO WROTE ADMISSION EXAMINATIONS

The data relating to the total number of candidates (split into black, coloured, Indian and white candidates) who wrote Parts I and II of the admission examinations during the period under review, and the pass rates of such candidates, are not readily available on the SAICA website. This data has been maintained by SAICA, but requests to SAICA for the data have been denied.

PwC maintains an analysis of data relating to its own trainees, and from March 2002, results have also been recorded by race (note that results are recorded at March and November, when Part I and Part II respectively are written) (Hobbs, 2005). Graphs based on a data series relating to the PwC data is contained in Figures 5.1 and 5.2.

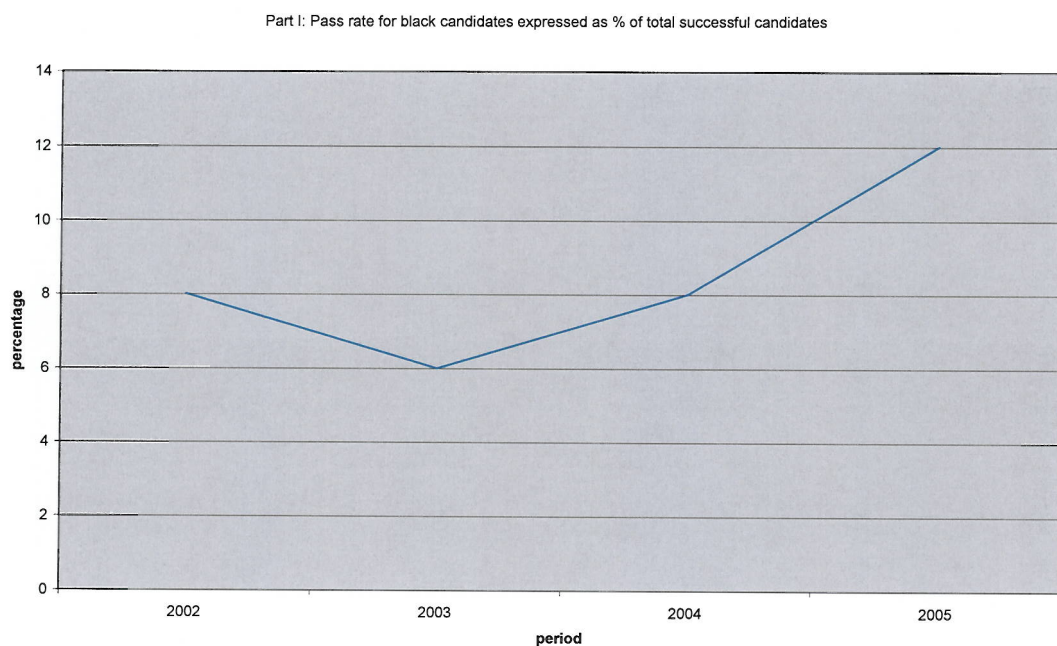


Figure 5.1: Part I: Pass rate for black candidates expressed as percentage of total successful candidates

Source: PwC

Part II: Pass rate for black candidates expressed as % of total successful candidates

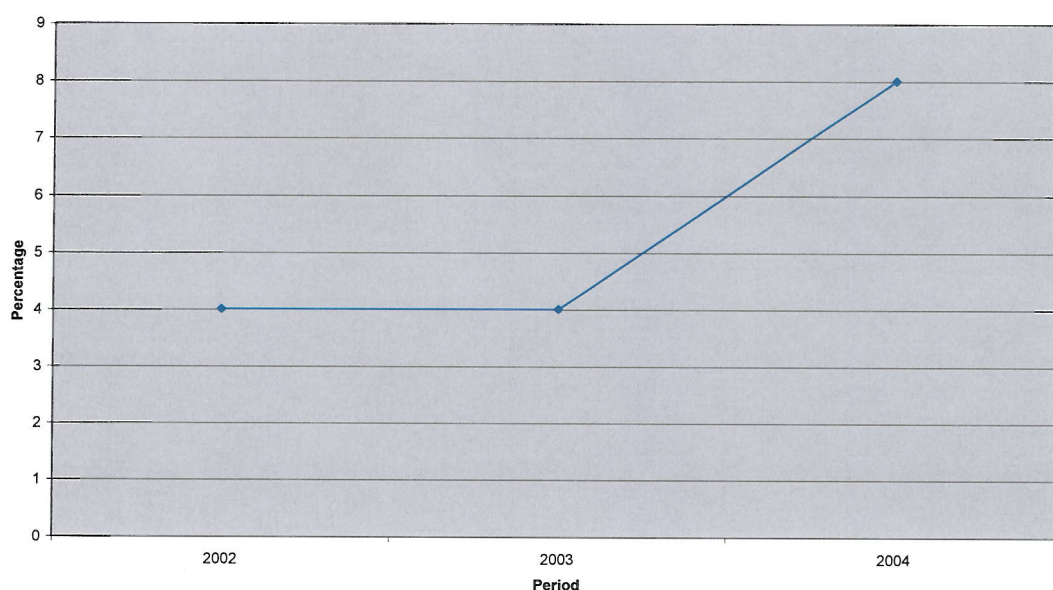


Figure 5.2: Part II: Pass rate for black candidates expressed as percentage of total successful candidates
Source: PwC

It is not considered that it would be correct to use the PwC results to make an inference about the total percentage of black students who passed nationally during the period March 2002 to March 2005, for the reason stated below.

A review of the pass rates of all candidates for the corresponding period, by Big Four firm and for the total number of candidates who sat for the exams, show that the PwC pass rates for all its candidates (black, coloured, Indian and white) do not differ significantly from the pass rates achieved by the rest of the Big Four Firms or from the average pass rate (It should be noted that the pass rates for all candidates is significantly higher than the pass rates for black students).

However, the composition of the candidates in terms of race differ significantly between the Big Four firms. For example, the number of black trainees employed by Deloitte is higher than the number employed by PwC, and one would accordingly expect that the pass rate amongst these candidates will be higher than amongst the black candidates employed by PwC. This assumption is based on the fact that the total number of Deloitte trainees who wrote the exams approximate the total number of PwC trainees who wrote, and furthermore, on the fact that the overall pass rate for Deloitte trainees is on par with the average pass rate as well as the pass rates achieved by the rest of the Big Four Firms. In short, the percentage of successful black candidates at PwC does not represent the population, i.e. the number of successful black candidates nationally.

5.5 NUMBER OF STUDENTS IN THE ACCOUNTING STREAM

According to the SAICA website, the following institutions currently offer the Certificate in the Theory of Accountancy ("CTA"), which is the accredited programme for students who wish to qualify via the audit route:

- North West University (formerly Potchefstroom University for Christian Higher Education);
- University of Johannesburg (formerly Rand Afrikaans University);
- Rhodes University;
- University of Cape Town;
- University of KwaZulu-Natal;
- Nelson Mandela Metropolitan University (formerly University of Port Elizabeth);
- University of Pretoria;
- University of South Africa;
- University of Stellenbosch;
- University of the Free State;
- University of the Western Cape; and
- University of the Witwatersrand.

Data relating to the number of black students currently at each of these institutions (per academic year, i.e. undergraduate years 1-3 and honours year), as well as history of the pass rates of black students will be required in order to forecast the number of black students who will may qualify within the next 4-7 years.

For example, Stellenbosch University currently has seven black students in their first year. However, of five black students who commenced their studies in 2002, only one has progressed to the honours class of 2005 (Hobbs, 2005).

Although the student numbers per academic year for Stellenbosch University from 2001 are available, these figures cannot be used to make an inference about the population, for a number of reasons.

The first obvious reason is that Stellenbosch is traditionally an Afrikaans university which may not have attracted black students because of language and cultural barriers.

Also, large numbers of students conduct their studies part time, through either the University of KwaZulu-Natal Distance Learning or the University of South Africa, and indications are that black students comprise a significant percentage of these students. To base further work on the available figures for Stellenbosch University would clearly give a distorted picture of the situation at other universities.

The information relating to the universities set out above is not readily available, although it is understood that it has recently been obtained by SAICA. SAICA has refused to make the information available to the author, and it remains to be seen whether the universities will provide the required information.

5.6 HISTORICAL PERFORMANCE OF THE UNIVERSITIES IN THE ADMISSION EXAMS

It is well known within the profession that students who graduated from the University of Cape Town have maintained a 100 per cent pass rate in the admission exams for at least the past two years. It is also known that students who graduated from the University of KwaZulu-Natal Distance Learning have historically fared poorly in the admission examinations, with only 30 per cent of their students having passed Part I of the examination written in March 2005.

Although these results are not directly relevant to the purpose of the forecast, it is very relevant from the perspective of SAICA, who sets and manages the standards for the profession. Unfortunately, this data is sensitive for various reasons and it is not possible to indicate whether it will be possible to use this data at a later stage.

6. CONCLUSION

It is considered that the available data series are not sufficient in order to make meaningful forecasts of the number of black CAs by 2010, as there are number of other variables (refer the unavailable data discussed above) which should be considered and incorporated into forecasts.

Internationally, one of the most troublesome issues faced by professional services firms is the problem of retaining staff. Whereas in the past, employees built their careers around a single employer, the trend is now for employees to seek a variety of work experiences at different employers.

This trend obviously have far reaching implications for accounting firms who wish to and are under increasing pressure to expand the number of black CAs they employ.

This situation is not helped by the fact that, currently, there is a premium on black accountants which will not likely be balanced out in the near future by normal rules of supply and demand.

These issues require that a combination of quantitative and qualitative forecasting methods be employed in order to arrive at meaningful thinking and planning around the future uncertainties currently faced by the accounting profession.

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