AATP POST TRADE TEST TRACER STUDY

Final Report

20 September, 2012

merSETA

MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

AATP POST TRADE TEST TRACER STUDY

Prepared for

Manufacturing, Engineering and Related Services (merSETA)

Prepared by

Underhill Corporate Solutions (UCS)

Project Manager & Lead Consultant: Edmore Mahembe

UNDERHILL CORPORATE SOLUTIONS
Inspired solutions for world-wide impact!

Contact Details:
Edmore Mahembe
357 Flowers Street
Capital Park, 0084
Cell: +27 (0)83 757 3733
Phone: +27 (0)12 751 3237
Fax: 086 540 7052/
086 639 8976
E-mail:
eddiem@underhillsolutions.co.za
info@underhillsolutions.co.za
Website: www.underhillsolutions.co.za

Pretoria, South Africa

20 September, 2012

ACKNOWLEDGEMENTS

The research team wishes to acknowledge the co-operation of the following organisations and individuals that helped attain the goals of the tracer study.

1. Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA) for the opportunity afforded to Underhill Corporate Solutions (the research consultants) to conduct this project; *"AATP Post Trade Test Tracer Study"*.

2. Client senior project manager and resource team for facilitating the overall project exercise and the useful comments on the draft report that helped shape the format of the final report.
   i. Derrick Peo
   ii. Helen Brown,
   iii. Tsholo Mtembu, and
   iv. Zolile Zungu.

3. All the companies under the merSETA which took part in the study and allowed their employees (artisans) to be interviewed by the researchers.

4. Training providers who took part in the study.

5. Qualified artisans who answered (both face to face and telephonic) the questionnaires.

6. Finally, special appreciation to key consulting team members, namely;
   i. Edmore Mahembe,
   ii. Natasha Turton, and
   iii. Patience Munakandafa.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

RESEARCH DEFINITIONS AND ACRONYMS

DEFINITIONS

Artisans interviewed during the Tracer Test comprised of 408 qualified artisans from the AATP programme, and 102 from the non-AATP programme (4-year apprenticeship). Those from the AATP programme will be referred to as the *"Project Artisans",* throughout this report, while those from the non-AATP programme will be referred to as the *"Control Group Artisans"*.

ACRONYMS AND ABBREVIATIONS

AATP	Accelerated Artisan Training Programme
CBMT	Competency Based Modular Training
CEO	Chief Executive Officer
CSPro	Census and Survey Processing System
DHET	Department of Higher Education and Training
FET	Further Education and Training
IMPS	Integrated Microcomputer Processing System
ISSA	Integrated System for Survey Analysis
KZN	KwaZulu Natal
merSETA	The Manufacturing, Engineering and Related Services Sector Education and Training Authority
NAMB	National Artisan Moderation Body
NCV	National Certificate Vocational
NGP	New Growth Path
RPL	Recognition of Prior Learning
SPSS	Statistical Package for Social Sciences
TOR	Terms of Reference
TP	Training Provider
UCS	Underhill Corporate Solutions

EXECUTIVE SUMMARY

1. Introduction and Background

The merSETA AATP programme is about pacing and structuring the development of competent apprentices over a period of two to three years. Apprentices entering the programme had to have higher entry qualifications than the normal four-year apprenticeship, and the structure of exposure to the curriculum is highly regulated, structured and monitored. Employers had to have an apprentice intake of 10 or more candidates and enough qualified artisans to mentor these apprentices to participate in project (a ratio of one qualified artisan to two apprentices).

Underhill Corporate Solutions (UCS) was commissioned by merSETA to conduct an AATP tracer study. The purpose of this assignment was to provide as much information as possible regarding the activities of apprentices after passing their trade test, including the employment status and expectations of apprentices who have qualified on the AATP management platform. Tracer studies are designed to determine whether or not a programme is achieving its mission and help demonstrate its impact and this is best seen by the achievements of the qualified apprentices (herein referred to as artisans).

This assignment commenced in July 2012 and was concluded in September of the same year.

2. Methodology

The study employed both quantitative and qualitative research methods. A survey of merSETA artisans was conducted between July and August, 2012. The total study population was the AATP artisans who entered merSETA's AATP programme between the years 2007 and 2010, and the control group which consisted of the merSETA Non-AATP artisans. A stratified random sampling method was used to sample the 400 AATP (project) and 100 Non-AATP (control group) qualified artisans from a population of 2,337 and 8,879 respectively[1]. The artisans' contact details were retrieved from the merSETA database.

Three questionnaires were developed for each stakeholder: (i) project artisans and control-group artisans (ii) employers, and (iii) training providers. Artisans were the main study group while employers and training providers were informants. Each questionnaire consisted of both structured

[1] The objective was to get a sample size which is cost effective and gives a lower margin of error. An estimation of margin of error at 95% confidence level (where there is only a 5% chance that the sample results differ from the true population) is given by $1/\sqrt{N}$, where N is the number of participants or sample size. *Thus the minimum total sample size which has 5% margin of error is 400.*

and unstructured questions. Questionnaires were administered to the respondents either through face to face or telephonic interviews.

3. Main Findings

3.1. Passing the Trade Test

- The study interrogated the trade test pass rates of the project artisans and revealed that the proportion of apprentices passing within the required programme time frame was increasing. 58% of Phase 1 (2007/8 intake) passed with the programme time schedule, and the pass rate increased to 68% for Phase 2 (2008/9),79% for Phase 3(2009/10),with the current rate for Phase 4(2010/11) stood at 78%.This shows an improvement in the overall management of the AATP programme.
- The study further analysed the number of times the project artisans had taken the final trade test by Phase. The proportion of the project artisans who passed their trade test on their first attempt increased from 66% for Phase 1 to 78% Phase 4. The proportion of project artisans passing their trade test on their second or third attempt has been decreasing over time.
- An analysis of the project artisan pass rate by type shows that the CMBT artisans had a higher proportion (88%) of apprentices passing their trade test in their first sitting, than the Time-Based artisans with 69%. The survey results suggest that the CBMT's, or 'the regulated phased approach', to apprenticeship training increases the pass rate on the first attempt.
- A comparative analysis of the passing at first sitting between project and control group artisans revealed that a higher percentage (71%) of project artisans passed their trade test at first sitting compared to control group (66%). This suggests that a more structured artisan development system increases the pass rate at first sitting.
- The study conducted a cross tabulation of the number of times project artisans had taken the final trade test by the highest qualification prior to apprenticeship entrance. The results revealed that;
    - There is no significant difference between the percentage passing the trade test at first sitting between an N3, N4, N5, N6 and Matric graduates; averaging at 70%.
    - The percentage of N2 graduates who passed their trade test at first sitting was very low; 40% for project artisans and 33% for control group artisans. This suggests that N2 graduates struggles to pass an artisan apprenticeship programme.
    - The percentage of N4 graduates who pass at first sitting was lower than average for both project and control group.
- The majority of artisans who did not pass the test on the first sitting (36%) cited 'not being adequately prepared' as the main reason.

3.2. Artisan Employment

3.2.1. The Employed

- Out of the total sample size of 510 artisans, 406 (80%) indicated that they were employed.
- More than half (53%) of the qualified artisans were permanently employed, 44% were on contract, while 3% were working on a part-time basis.
- More CBMT were employed compared to Time-Based artisans; 85% and 79% respectively.
- There was no significant employment difference between project and control group artisans. 81% of control group artisans were employed as compared to 79% of their project artisans counterparts.
- The study also found that permanent employment was negatively related to AATP programme phases- those who passed their trade test earlier are more likely to be permanently employed, and vice versa.
- More CBMT artisans were permanently employed than the Time-Based; 96% to 44% respectively.
- A higher percentage (70%) of control group artisans were permanently employed compared to project artisans (48%).
- Limpopo, EC, and Mpumalanga provinces were the highest absorbers of project artisans.
- Riggers, Fitters, Millwrighters, Mechanics and Fitter &Turners are more likely to be employed as employment rates among these trades were high (85% and above).

3.2.2. Artisan Retention and Mobility

- Of the total employed artisans, 59% indicated that they are working at the same company they completed their apprenticeship. Thus 41% of employed artisans interviewed had left their original training company.
- The CBMT artisans had the highest retention rate (79%) compared to Time-Based artisans (56%).
- The retention rate of control group artisans was higher with 65% of the respondents still working at the same company, whilst for project artisans 58% of the respondents were working at the same company they completed their apprenticeship.
- 76% of the respondents who were still working at the company they completed their apprenticeship indicated that the main reason they chose to stay was because they were 'offered the job'.
- Of the artisans who had left their original training company, 73% stated that the main reason for this was because 'the company could not take them on as employees'.

3.2.3. Artisan Migration Patterns

- A further review of the post trade test labour migration patterns of apprentices revealed that Mpumalanga artisans' respondents recorded the highest mobility rates, with 42% having moved to Limpopo. The least mobility occurred in Western Cape, with 91% of respondents remaining in the province. This shows that it is not very important where training take place; artisans are prepared to move to provinces with employment opportunities.
- Limpopo Province had the highest project artisan retention rate; with 97% of the artisans interviewed still working at the company they did their apprenticeship. KZN had the lowest, with only 30% still working at the company where they completed their apprenticeship.
- Gauteng, KZN and Mpumalanga qualified artisans were the most likely to have changed employers, and the most popular destination was Limpopo Province.

3.2.4. The Unemployed

- Out of the total sample size of 510 apprentices, 104 (20%) indicated that they were 'not working' at the time of the interview, 0.78% were 'not actively looking for work', and 3.92% have 'not worked in less than 3 months'. Thus 15.69% of the total artisan respondents were could be classified as 'unemployed'.
- Of the 20% artisans who indicated that they were 'not working';
    - 83% were from the project artisans and 17% from the control group.
    - 83% of the project artisans had been looking for a job for more than 3 months compared to 59% of control group.
- 33% of female artisans were 'currently not working' compared to 18% of their male counterparts.
- 99% of the unemployed artisans were still interested in pursuing careers as artisans.
- 73% of the unemployed project artisans cited that the main reason for not having found employment yet was because 'more experienced people were getting the jobs'.
- Of the total unemployed, 58% had worked for a while after completing their apprenticeships, with 65% of project artisans stating that the reason for no longer being employed was because 'their contract had expired'.
- The most popular ways of looking for a job for those 'not working'; advertisement, internet, word of mouth, etc.
- According to artisans, the main cause of unemployment was lack of experience. A higher proportion of project artisans mention lack of experience.

3.3. Training

- The majority of respondents rated their training excellent (41%) and good (45%).
- The majority (68%) of qualified artisans had not done any post trade test courses. For those who had done additional training courses, most of the courses they took were related to their trades.
- Some of the artisans said: *"I was becoming a very good welder, I was even asked to help train other apprentices,…"* – Artisan, KZN; *"merSETA is great because they have the internationally-recognised red seal."* – Artisan, WC.

3.4. Suggestions for improved effectiveness of the Project Implementation

- 41% of qualified artisans did not think that anything needed to be done to improve the effectiveness of the AATP.
- The most common suggestions (from artisan respondents) to merSETA on how to improve on the effectiveness were:
    - better monitoring by merSETA, which include site visits
    - to prioritise the practical on the job training element against the curriculum,
    - to investigate the issue of post trade test 'additional practical experience' to help the project artisans to become more employable. This could be done through; encouraging further training and experience after the trade test
- Of the employers and training providers who offered suggestions for improved effectiveness of the programme;
    - 50% of the employers and 37% of the training providers believed that the programme needs to be extended, by durations of at least six months to one year. As the researchers we understand that this has already been implemented in Phase 4, 5 and 6 of the programme
    - Some employers pointed out that the institutional training provision was 'too short'.
    - Some employers and training providers suggested that, owing to the unique nature of the programme, efforts are needed during the recruitment stage to ensure that candidates who have demonstrated vocational identity and commitment to the trades are prioritised for selection.

4. Recommendations

Based on the findings, this research recommends the following:

1. To increase the employability of its future apprentice, merSETA can:
    a. Consider making it obligatory for companies to retain apprentices for an extra year after the trade test in order to provide them with valuable on-the-job experience as artisans, at

market rates for entry-level artisans. It will also incentivise companies to ensure that the training provided to AATP apprentices is of a high quality.

b. Consider extending the implementation of this apprenticeship by an extra six months for practical work-place experience, all of which is workshop time, as some employers are sceptical about apprentices being ready for on-the-job experience without having had enough time to practice in the workshop beforehand.

2. For those artisans who are currently unemployed, it is recommended that merSETA takes a more active role in facilitating their employment. merSETA can consider launching an 'Unemployed Artisan Follow-Up Programme' which is focused on placing the artisans into productive employment. Some of the activities under this proposed programme could be:
    a. Registering the unemployed artisans on the Department of Labour's employment services database.
    b. Prepare the artisans for employment under the National Infrastructure Development Programme.
    c. Give these artisans preferences in other merSETA training, employment or business development programmes such as the voucher scheme.
3. merSETA could consider creating a database of their artisans so that companies who need good, qualified artisans can search for them centrally.
4. merSETA can also consider reducing the uptake of apprentices in the trades which are currently experiencing high unemployment like welders, electricians and boilermakers. Trades with lower unemployment levels should be prioritised, such as rigger, fitter and millwright. Furthermore, it will be important to match demand of artisans (through WSP) and willingness to training by companies to future recruitment.
5. Establish a network of companies (over and above those taking on apprentices) seeking to employ qualified artisans. This will provide merSETA with an indication of how large (or small) the demand is for artisans. This will also help merSETA determine the number of grants to be issued to companies over and above the internal needs. Qualified artisans could then also be promoted within this network.
6. Since the AATP started in 2007, this was the very first tracer study. Though this is commendable, it is recommended that tracer studies be done annually. This will help merSETA not only have an updated database of their artisans but have consistent feedback on the efficiency and effectiveness of the programme. TORs for future tracer studies should include:
    a. To research qualified artisans from the most recent phase provided that a year has lapsed since completion of the trade test.
    b. Should have a mechanism with which to log problems raised by respondents so that merSETA can follow-up and resolve them.

7. merSETA can also use tracer studies results for future grant allocation. More grant money could be allocated to companies who are willing retain trained apprentices. Through the tracer study, merSETA should monitor whether a company has retained an apprentice immediately after successful completion of the trade test. This tracer exercise will allow merSETA to keep track of the retention rates at each of its clients, and this historical data should be used when evaluating each company's grant applications from year to year. Companies with higher retention rates (and increasing retention rates) should be given priority.
8. merSETA needs to educate the industry (particularly those companies not involved in the AATP) to remove the stigma that AATP is a "crash course" and therefore cannot produce artisans of a high quality. This could be done through informative advertising and articles in publications.
9. merSETA should consider rebranding the AATP as it can no longer be considered accelerated. The new name should reflect the programme's unique nature (qualification requirements as well as monitored structure where the compulsory theory and training are concerned).
10. Consider using the CBMT's 'regulated phased approach' for the Time-Based AATP.
11. Owing to the unique nature of the AATP, apprentices need to be serious and disciplined; therefore efforts are needed during the recruitment stage to ensure that candidates who have demonstrated vocational identity and commitment to the trades are prioritised for selection.
12. merSETA can also consider including an entrepreneurship and business skills component in the curriculum for trades. This will help qualified artisans to not only focus on employment, but also possibly start their own businesses and thereby create much needed employment for others.
13. Apprentices should be provided with the merSETA call centre number in the Learning Programme Agreement which should be used to lodge complaints if problems raised directly with their employers have not been resolved.
14. merSETA should review the way in which problems reaching the call centre by the apprentices are tracked and resolved.
15. merSETA should consider employing a technically-minded person (not an administrative person) to monitor the standard of supervision provided to apprentices by their companies.
16. Inclusion of small businesses (SMEs) in the training, development and employment of artisans should be a priority. The SMEs, by nature, do not have the human resources to manage the AATP's milestones and administration appropriately, nor do they always have training specialists in their employ; but they can benefit from the training grants and having qualified artisans in their employ. A collective method could be developed for SMEs in similar sectors operating in close proximity, whereby the management and administration of the training is handled externally (possibly by a merSETA employee or regional office), and where some of the training can be handled by an external provider.

1. INTRODUCTION

1.1. Introduction

1.1.1 merSETA

merSETA was established through the Skills Development Act, (Act of 1998). It facilitates skills development in the following sub sectors: metal, automotive manufacturing, motor retail and component manufacturing, tyre manufacturing and plastics.

1.1.2 Accelerated Artisan Training Programme

The Accelerated Artisan Training Programme (AATP) implemented by merSETA is a modern apprenticeship programme that fast-tracks artisan development through up-front institutional training until all competencies have been achieved in a simulation environment, followed by workplace exposure over the required number of weeks and which ends in a trade test. The programme started in 2007 in response to the Joint Initiative on Priority Skills Acquisition (JIPSA) which highlighted the critical shortage of qualified engineering artisans in the manufacturing and engineering sector. The AATP was about pacing and structuring the development of competent apprentices over a period of two to three years.

Apprentices entering the programme had to have higher entry qualifications and the structure of exposure to the curriculum is highly regulated and monitored. The minimum qualifications requirements were as follows:

- Four engineering related subjects at N3 including maths and science passes exceeding 50%,
- NCV Level 4 (Engineering) full exemption, which is the new curriculum being offered at FET Colleges since 2007,
- Technical or academic matric with maths and science passes of 50% or more on standard grade, and
- University students, who for various reasons, cannot complete their engineering studies

Employers had to have an apprentice intake of 10 or more candidates (exceptions for SMEs and priority skills) and enough qualified artisans to mentor these apprentices to participate in project. The ratio of one qualified artisan to two apprentices was the normal requirement according to the merSETA workplace approval quality assurance standards.

1.1.3 Time Based Trades

For Time Based Trades, the training programme is split into two phases – firstly, the selected candidates complete a 26 week course which covers all the training modules in theory and simulated practical for the trade. The programme then moves to the second phase which is based at the employers' premises where all the modules for the trade are covered in the practical workplace

experience format for a period of 54 weeks. The Trade Test is completed at the end of the total 80 week period (26 weeks institutional training and 54 weeks practical based in the workplace).

1.1.4 Motor Competency Based Modular Training (CBMT) Trades

For Motor CBMT (Competency Based Modular Training) Trades, the training takes place in four competency based phases where theory, simulated practical, workplace experience and the phase test are completed in 26 weeks for each of the four levels.

1.1.5 NQF based learnerships 2-4 ending in a trade test

Three learnerships run consecutively primarily in the motor sector where each level is individually assessed before entering the trade test.

1.2. Project Objectives

The purpose of this assignment is to conduct a tracer study aimed at providing as much information as possible regarding the activities of apprentices after passing their trade test. The objective of this study is to conduct a research project that takes stock of the activities, employment status and expectations of apprentices who have qualified on the AATP management platform. The project will be treated as a baseline analysis of trends across the manufacturing and engineering sector.

1.3. Project Scope and Deliverables

According to the terms of reference (TOR), the study should provide as much information as possible regarding the activities of apprentices after passing their trade test. The study will reach at least 400 of project artisans and an additional 100 control group artisans for comparative analysis purposes.

The scope of the research study is as follows:

- The rate of retention across the project artisans in the original training company;
- Insight into reasons for employers' retaining or releasing their apprentices including: policies considerations, apprentice performance, employment capacity against economic considerations, apprentice training management systems including manpower planning, etc;
- Insights into reasons for apprentices decisions to remain with or leave the original training company including: higher wages, further training and development opportunities; career prospects, fear of not finding employment, etc;
- Post trade test migration patterns of apprentices not retained by the original training company;
- Post trade test training courses attended;
- Where apprentices are employed elsewhere after the trade test, the means by which alternative employment was secured – for example: by word of mouth; referral; labour broker; Department of Labour Office, etc.;

- Comparative findings between project artisans and control group artisans;
- Links between qualification prior to starting the apprenticeship and time to successfully passing the trade test;
- The apprentice's activities outside of their training company and scope of training
- Responses representative of geographic spread, race, gender, training provider, chamber, and employment

2. ARTISAN DEVELOPMENT IN SOUTH AFRICA

2.1. Introduction

In line with global trends, education, training and skills development are strongly associated with employment: there are fewer jobs available for those with no or low education (Leibbrandt et al 2010), who will find it increasingly difficult to access the South African labour market. With the economic shift towards financial and other services sectors, and the global shift to technology-intensive production in all sectors, the demand for skilled workers is growing. Hence, some sectors in South Africa experience a severe shortage of skilled labour market entrants, particularly those with qualifications at the intermediate and high skills levels, prepared for artisanal occupations and critical professions. In a context of few post-school opportunities, learnerships and apprenticeships are thus potentially significant routes to such critical vocational and occupational qualifications, and the promise of future employment.

In recent years, there is growing concern at the shortage of artisanal skills and at the lack of training capacity in the post-schooling system. merSETA has been a key player in the revival of the apprenticeship system alongside its learnership programme offerings.

2.2. Artisanal Skills Development

Artisanal skills development can occur through four main routes[2]: a learnership, an apprenticeship, a learner in possession of a national certificate vocational (NCV) obtained at a Further Education and Training (FET) College registering for an internship or skills programme, and lastly, through recognition of prior learning (RPL). An apprenticeship represents but one route to an artisanal qualification.

An apprenticeship is a non unit standard based registered qualification, which is governed by sections 13–29 of the Manpower Training Act No. 56 of 1981. An apprenticeship comprises the integration of workplace and institutional learning and culminates in a national qualification at the appropriate level (N1 – N6)[3]. It involves both on and off the job training. Most apprentices have a contract with their sponsoring firm, and work in that firm, learning while they do so, while the off the job component is supplied by learning providers (Mukora, 2009), typically private training companies, employers themselves or FET colleges.

[2]This was gazetted by the Department of Labour's (DoL) Artisan Development Committee towards the end of December 2007.
[3] As is discussed later in this report, the N Courses have been scrapped by the Government.

The national artisan learning routes are illustrated in Figure 1 below.

Figure 1: Artisan Learning Routes

Source: Department of Higher Education and Training (2011)

SETAs and organisations which are currently training artisans in South Africa are merSETA, Mining Qualifications Authority (MQA), Institute of Plumbing of South Africa (IOPSA), and TASA (Tool-making Association of South Africa), under the National Tooling Initiative Programme (NTIP).

Artisan development has been at the core of Dr BE Nzimande, Minister of Higher Education and Training (DHET)'s news skills development trajectory. He established[4], directly under his auspices, a platform that annually review the state of artisan development in South Africa and allow for discussion and consultation on how to continually improve the National Programme for Artisan Development, the "7-Steps to Becoming a Qualified Artisan".

The National Artisan Moderation Body (NAMB) that was established by the DHET on 30 November 2010, is charged with the responsibility to coordinate artisan development in the country, and has short and long term national artisan development targets as shown below.

[4] http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=28773&tid=74743

Figure 2: Aligning NAD Targets to National Priorities

Ministers PME Outcome 5 & NSDS III	New Growth Path Economic Development
10 000 artisans annually by 2014 Pass Rate from 46% to 60% by 2014	Artisans: 50 000 additional by 2015

Year	2007-2008	2008-2009	2009-2010	2010 – 2011	2011 - 2012	2012 - 2013	2013-2014	2014-2015	2015-2016
Registered	16 193	24 229	26 301	23 517	30 000	31 000	32 000	33 000	35 000
Certificated	6 030	8 935	8 238	11 778	11 759	16 500	18 600	20 800	23 100
Pass Rate ***	N/A	55%	34%	45%	50%	55%	60%	65%	70%
Cumulative numbers from 1st April 2011 onwards to meet NGP Target					11 759	28 259	46 589	67 659	90 759

Actual (NSDS II) Planned (NSDS III)

*** Pass rate is staggered by 2 years (Assumed estimated average time to qualify considering both RPL (Section 28) and Full Time Learning (Section 13)

Source: Department of Higher Education and Training (2011)

Figure 2 above shows that the for the country's New Growth Path (NGP) goals to be met, the country's artisan development system should have produced a total of 90 759 artisans by the year 2015-16. merSETA's AATP, as one of the key producers of artisans, has a major role to play in the future development and growth of the country.

3. LITERATURE REVIEW ON TRACER STUDIES

3.1. Introduction

The purpose of literature review in a research study is to highlight knowledge and ideas that have been established on a subject matter under study. This section is meant to answer the broad question: "How can a tracer study be conducted?" Since the study's focus is on evaluating the effectiveness of the AATP, the literature review section also aims to the more specific research question: "How to (i) document activities of post-graduates, and (ii) comparison between different skills development modalities (or programmes)?"

Tracer studies are designed to determine whether or not a programme is achieving its mission and help demonstrate its impact and this is best seen by the achievements of the qualified apprentices. The ILO Thesaurus 2005[5] defines a tracer study as an impact assessment tool where the *"impact on target groups is traced back to specific elements of a project or programme so that effective and ineffective components may be identified"*. Tracer studies are used to measure relevance of training and help inform changes that can be made to improve programme implementation.

3.2. Review of Relevant Literature

Tracer studies have been conducted by educational institutions for decades. Harald Schomburg and his colleagues at the Centre for Higher Education and Work, University of Kassel, Germany, have done considerable research on conducting tracer surveys; constructing effective tracer study questionnaires and their statistical analysis. They have conducted survey projects such as the CHEERS (Career after Higher Education-a European Research Study) which investigated the links between higher education and graduate employment in Europe. Similar research studies have been conducted in Africa, Asia and Latin America. The following are examples of tracer studies from all around the world, including South Africa.

The Tertiary Education Commission (TEC)[6] of Mauritius (2009) conducted two tracer studies, one in 1996 and the next in 2008 on the Degree graduates of the University of Mauritius. Both studies were aimed at investigating the whereabouts of the graduates since they completed their university studies, to gauge the extent of employment, unemployment and underemployment as well as further studies. They also sought information about the occupations of those graduates, including their sector of activity and the nature of their employers. Some of the findings of the studies included that: more graduates were able to find work in 2008 than 1996, with full-time employment rising from 83.1% to 87.9% over the period, while the unemployment rate dropped concurrently from 5.3% to 1.9%; the

[5] http://wikieducator.org/images/e/e1/PID_424.pdf (Assessed 30 July 2012).
[6] Tertiary Education Commission (2009). *Comparative Analysis of the Graduate Tracer Studies 1996 and 2008.* University of Mauritius.

level of underemployment amongst University of Mauritius (UoM) Degree graduates, as reflected in the percentage of jobs requiring less than a Degree, increased from 8.7% in 1996 to 20.9% in 2008; degree graduates were found to be more mobile in the labour market, with two-thirds of respondents in the 2008 Study having occupied more than one job within the last five years, compared with 57% in 1996; and both studies revealed that Engineering, Science and Agriculture graduates were less satisfied (with their university) than Social Studies & Humanities and Management graduates.

Mascarenhas (2011)[7] conducted a tracer study to assess two courses conducted Poverty Alleviation (REPOA) between 2007 and 2009, namely (i) Budget Analysis and (ii) Public Expenditure Tracking System (PETS). One of the main objectives of the study was to explore the opinions of trainees and employers on the relevance, adequacy and use of the training in the context of their current employment. The main methodology was a quantitative survey. A questionnaire was sent to all participants of the two courses by e-mail or in a few cases by fax or post. Out of a possible 284respondents, 92 individuals (32% of the targeted population) responded. The study found that most of the respondents in both courses were using the knowledge and skills gained during their training. Input from senior management of the trainees' organisations also reflected the overall positive use of the training by participating staff.

Kaijage (n.d.)[8] conducted a tracer study on the skills and knowledge of B.Com graduates of the University of Dar es Salaam. The study concluded that the knowledge and skills that the graduates obtained from the university were relevant to their jobs. But it also suggested that changes should be made to the programme.

Shongwe and Ocholla (2011)[9] conducted a study tracing Library and Information Science (LIS) graduates who graduated from the Department of Library and Information Science (now Information Studies) at the University of Zululand between 2000 and 2009.A survey method was used to access the large and scattered LIS graduate population. A questionnaire consisting of both structured and unstructured questions was used as the main research instrument. A total of 50 graduates participated in the study. The study found that most LIS graduates were employed in the public sector, mainly in national, provincial and municipal libraries. Graduates were happy with the skills and knowledge they obtained from the LIS curriculum, but unhappy with the curriculum itself, often for contradictory reasons.

[7]Mascarenhas O. (2011). *Tracer Study on two Repoa Training Courses: Budget Analysis and Expenditure Tracking System.* Report on Poverty Alleviation (REPOA). Dar es Salaam, Tanzania.
[8]Shongwe, M and Ocholla, D. (2011).A Tracer Study of LIS Graduates at the University of Zululand, 2000 -2009.University of Zululand. Durban, South Africa.
[9]Shongwe, M and Ocholla, D. (2011).*A Tracer Study of LIS Graduates at the University of Zululand, 2000 -2009.*University of Zululand. Durban, South Africa.

Fiedeldei (2004)[10] conducted a tracer study of PACA facilitation trainees in South Africa. The study was commissioned by the Deutsche Gesellschaftfür Technische Zusammenarbeit (GTZ)'s German Technical Co-operation Business Development Services (BDS) Local Economic Development (LED) Programme, South Africa. The study aimed to identify outcomes according to the Impact Chain of the GTZ LED/BDS Programme. It evaluated the testing of PACA as a feasible tool, the impact on capacity building and the use of the service. By the time the tracer study was conducted, 71 people had been trained. Every former participant received a questionnaire with semi standardised questions, and the return rate was 46%. The study found that the overall opinion of the participants about PACA was generally positive; most of participants described PACA as practical, intensive, valuable, creative and successful; and the trainees appreciated the bottom-up approach and the new concepts and frameworks that improve the LED planning and implementation.

3.3. Conclusion on Literature Review

There are also many other tracer studies conducted all over the Africa and the rest of the world. The above mentioned examples indicate that tracer studies are generally conducted to find out about the fates of graduates or alumni. They investigate where graduates are, whether they are employed, and employers' perceptions about the skills and knowledge that graduates have. They are also used to obtain feedback from employed alumni and employers on the relevance of the programmes offered by different departments or courses.

Like most tracer studies, this study addresses the same questions: Are the graduates employable? Is the curriculum relevant? What are the perceptions of graduates and employers about the graduates' skills, knowledge and education?

[10]Fiedeldei, S. (2004).*Tracer Study of PACA Facilitation Trainees in South Africa.*GTZ.German Technical Co-operation Business Development Services Local Economic Development Programme, South Africa.

4. STUDY METHODOLOGY

4.1. Introduction

As discussed above, a tracer study is a graduate survey that attempts to trace the activities of the graduates or previous students of an educational or skills development programme. Almost all the previous tracer studies reviewed (see Literature Review section) above used both quantitative and qualitative research methodologies. The data collection instrument is normally a questionnaire consisting of both structured and unstructured questions. Depending on the population size, most studies with population sizes of 3 000 or lower targeted the entire population while those with higher population sizes targeted a representative sample.

4.2. Methodology

3.2.1 Sampling Method

A survey of qualified artisans was conducted between July and August, 2012. The projects artisans used for this tracer study began the merSETA AATP programme between the years 2007 and 2010. A stratified random sampling method was used to sample the 400 project and 100 control group artisans from a population of 2,337 and 8,879 respectively.

These artisans' contact details were retrieved from the merSETA database.

3.2.2 Sample Sizes

The targeted sample sizes for project artisans (AATP) and the control group artisans(non-AATP) are as follows:

Table 1: Proposed Sample Sizes per Province

	Total	Target Sample	Achieved
AATP Time-Based	**2 150**	**368**	**375**
AATP CBMT	187	32	33
Total AATP	2 337	400	408
Total Non-AATP	8 789	100	102
Grand Total	11 126	500	510

3.2.3 Data Collection Instruments

Three questionnaires were developed for each stakeholder: (i) project and control group artisans, (ii) employers, and (iii) training providers. Each questionnaire consisted of structured and unstructured; closed and open ended questions. The development of questionnaires involved the research team coming up with a draft which was thoroughly reviewed by the client. A meeting to review the instruments was held and all the comments were incorporated in the development of final

questionnaires. Copies of the final questionnaires are appended. Questionnaires were administered to the respondents either through face to face or telephonic interviews.

3.2.4 Data Capturing, Cleaning and Analysis

Data entry screens that are identical to the questionnaire were designed using CSPro. CSPro is a specialized data capturing software package that combines the features of Integrated Microcomputer Processing System (IMPS) and the Integrated System for Survey Analysis (ISSA) in a single windows environment. CSPro enables the user and data-capturing manager to easily monitor and control the data capturing process in situations where multiple data capturers are used.

To save time, data processing occurred concurrently with fieldwork. The survey data was coded entered into and analysed using the Statistical Package for Social Sciences (SPSS). Data was analysed using SPSS. This was done mainly through using descriptive statistics and inferential analysis. A description of the characteristics of participants and variables will be undertaken so as to compare demographic variables. Data analysis and interpretation was largely along the description given under ‘Scope of Work’ on the TORs.

5. STUDY FINDINGS

5.1. Introduction

As discussed above, a tracer study is a graduate survey that attempts to trace the activities of the graduates or previous students of an educational or skills development programme. This tracer study used both quantitative and qualitative research methodologies. The questionnaires had both closed and open-ended questions.

This chapter presents the findings of the study. It starts by describing the profile of the respondents; which are (i) the artisans, (ii) employers, and (iii) training providers. It should be noted that artisans are the primary study group and the main respondents to this study while employers and training providers are informants.

5.2. Profile of Respondents

5.2.1. Artisans

A total of 500 artisans were targeted from a sampling frame (total population) of 11,126 qualified artisans. The focus of the study was the artisans who went through the AATP programme, and 17% of its total sampling frame (2,337) was targeted. Overall, the survey exceeded its targeted sample size by 2%, as shown on Table 2 below.

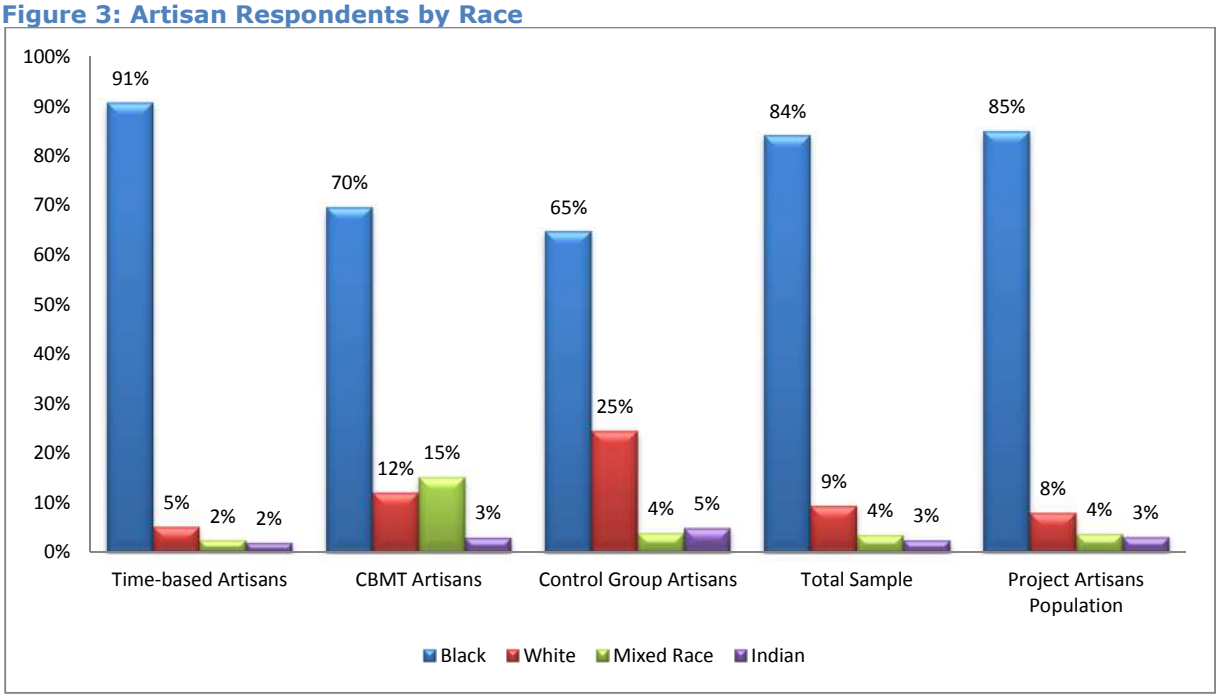
Table 2: Actual Versus Targeted Sample Sizes

Apprenticeship Programme	Total Population	Targeted Sample Size	Actual Sample Size	Variance (Target Vs Actual)
AATP (Time Based)	**2 150**	368	375	2%
AATP (CBMT)	**187**	32	33	3%
TOTAL AATP	**2 337**	400	408	2%
Non-AATP	**8 789**	100	102	2%
GRAND TOTAL	**11 126**	**500**	**510**	**2%**

Of the total actual sample size, 74% of the project artisans were involved in Time Based AATP, 7% CBMT AATP and 20% Non-AATP.

Figure 3 below shows that 84% of the artisan respondents were black, 9% white, 4% mixed race and 3% Indian. Time-based project artisans had the highest percentage (91%) of blacks; CBMT project artisans had the highest proportion of mixed race artisans (15%) while the control group artisans had the highest proportion (25%) of white artisans.

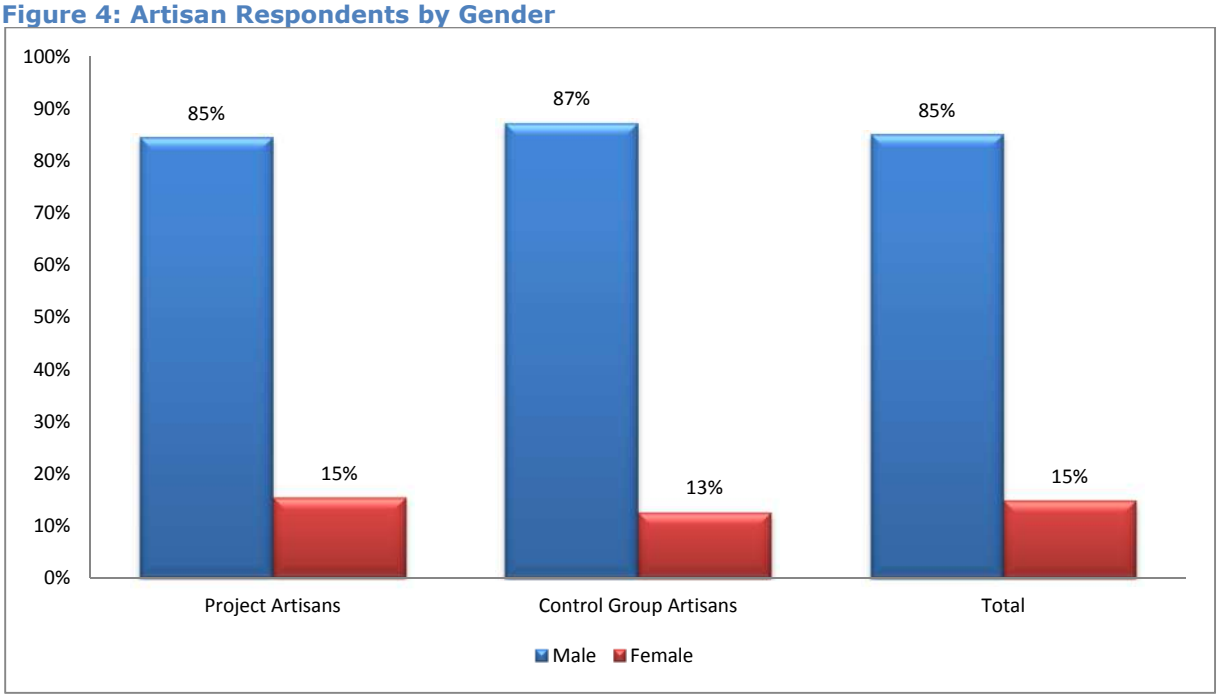
Figure 3: Artisan Respondents by Race



Source: UCS Tracer Study Survey (August 2012)

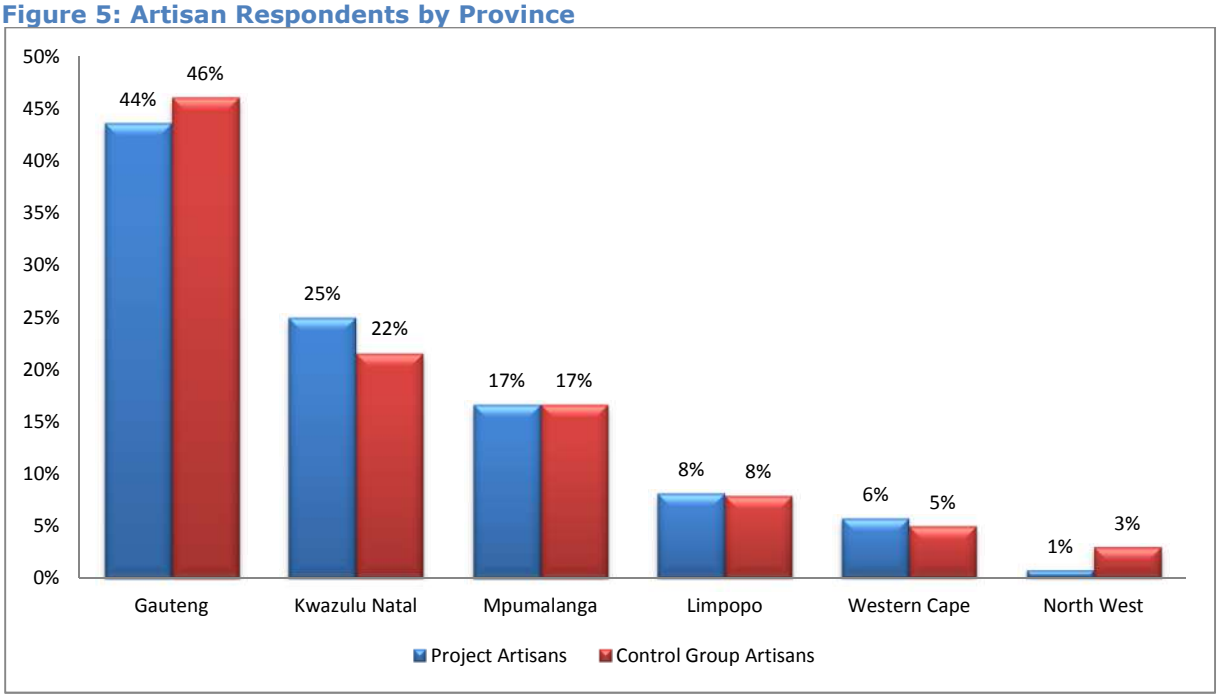
The total gender composition of the artisan respondents, as shown on Figure 4 below, was 15% female and 85% male.

Figure 4: Artisan Respondents by Gender



Source: UCS Tracer Study Survey (August 2012)

Figure 5: Artisan Respondents by Province

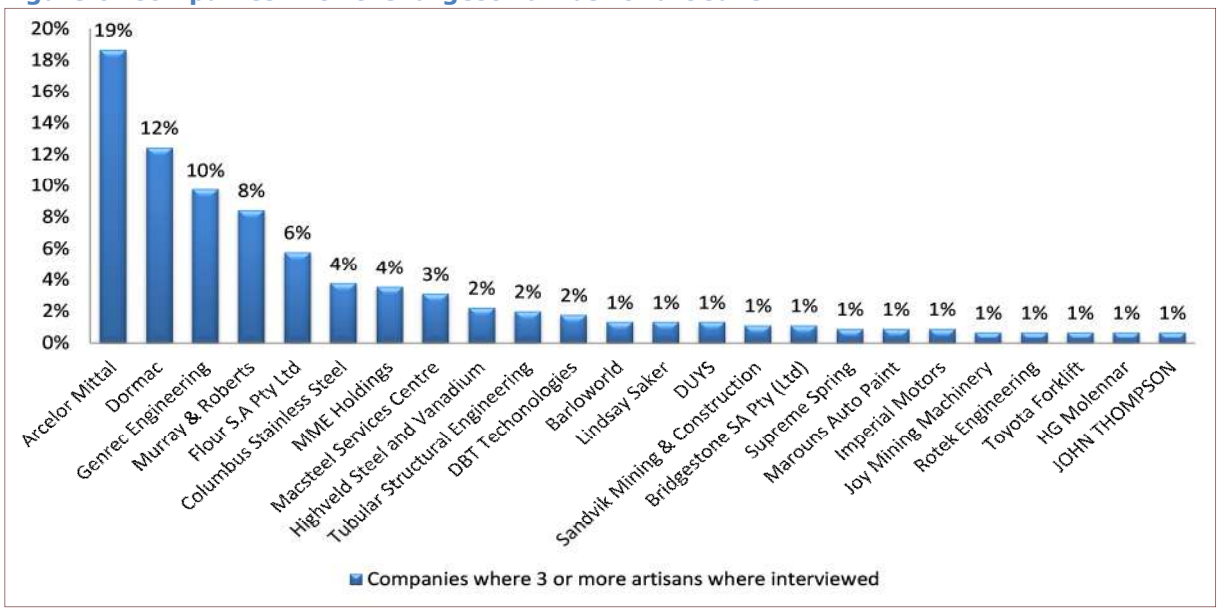


Source: UCS Tracer Study Survey (August 2012)

As shown above, the majority of the artisan respondents were based in Gauteng Province, with 44% and 46% of project artisans and control group artisans respectively. The trend is generally in line with the proportion of levy paying companies under merSETA. Gauteng-North West contributes around 53% of the overall merSETA levy paying companies and the smallest region is Free State-Northern Cape which has around 4%.

Most of the companies that take on apprentices are shown in Figure 6 below. Those that take on the largest numbers of apprentices are Arcelor Mittal (19%), Dormac (12%), Genrec Engineering (10%), Murray &Roberts (8%) and Fluor SA (6%).

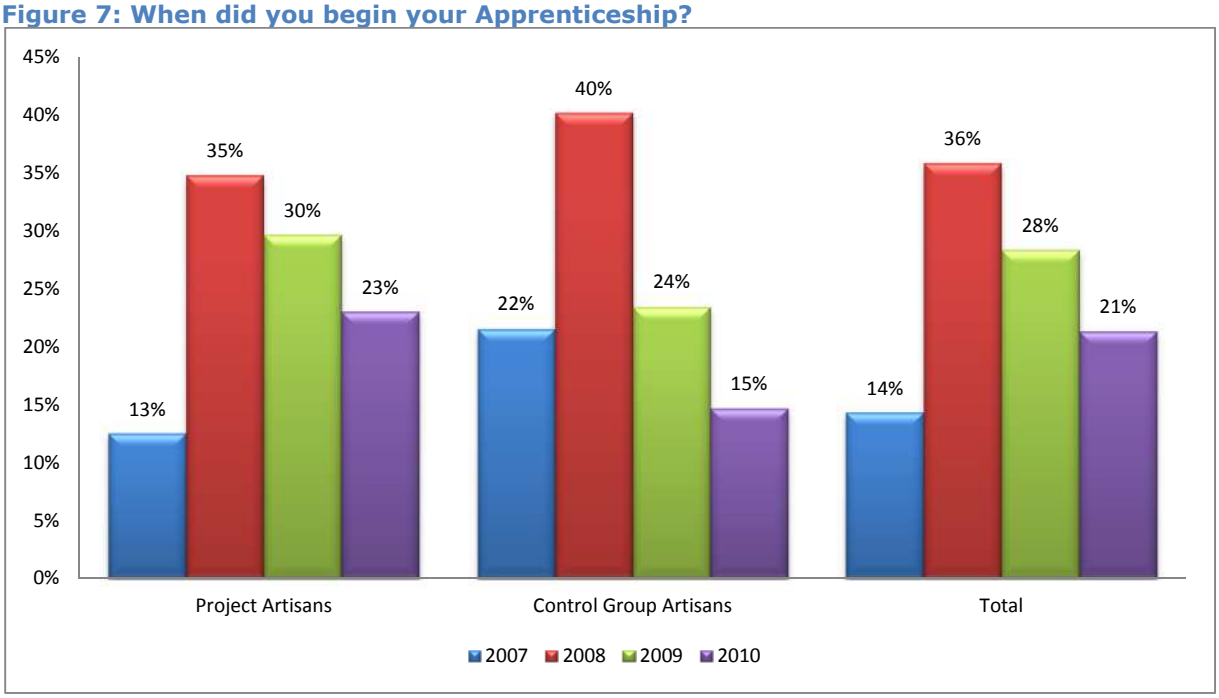
Figure 6: Companies with the largest number of artisans



Source: UCS Tracer Study Survey (August 2012)

A further analysis of the profile of the respondent artisans revealed that the majority (36%) began their apprenticeship in the year 2008 and the least proportion started in 2007. The same trend prevails for both the project artisans and control group artisans.

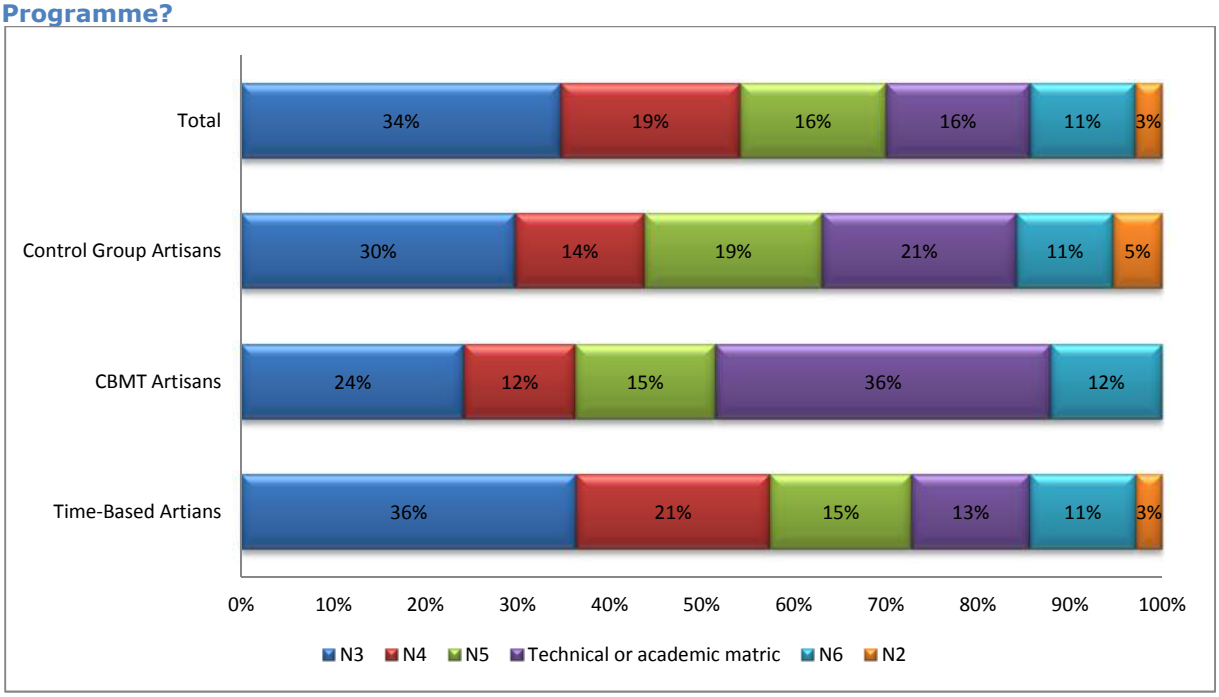
Figure 7: When did you begin your Apprenticeship?



Source: UCS Tracer Study Survey (August 2012)

Overall, the majority (34%) of the total respondent artisans had N3 as their highest qualification before commencing the apprenticeship programme. However, most (36%) of the CBMT artisans had 'Technical or Academic Matric as their highest qualification before commencing the apprenticeship programme. A very small percentage (3%) of the respondents had N2 before the apprenticeship programme.

Figure 8: What was your Highest Qualification Prior to Commencing the Apprenticeship Programme?

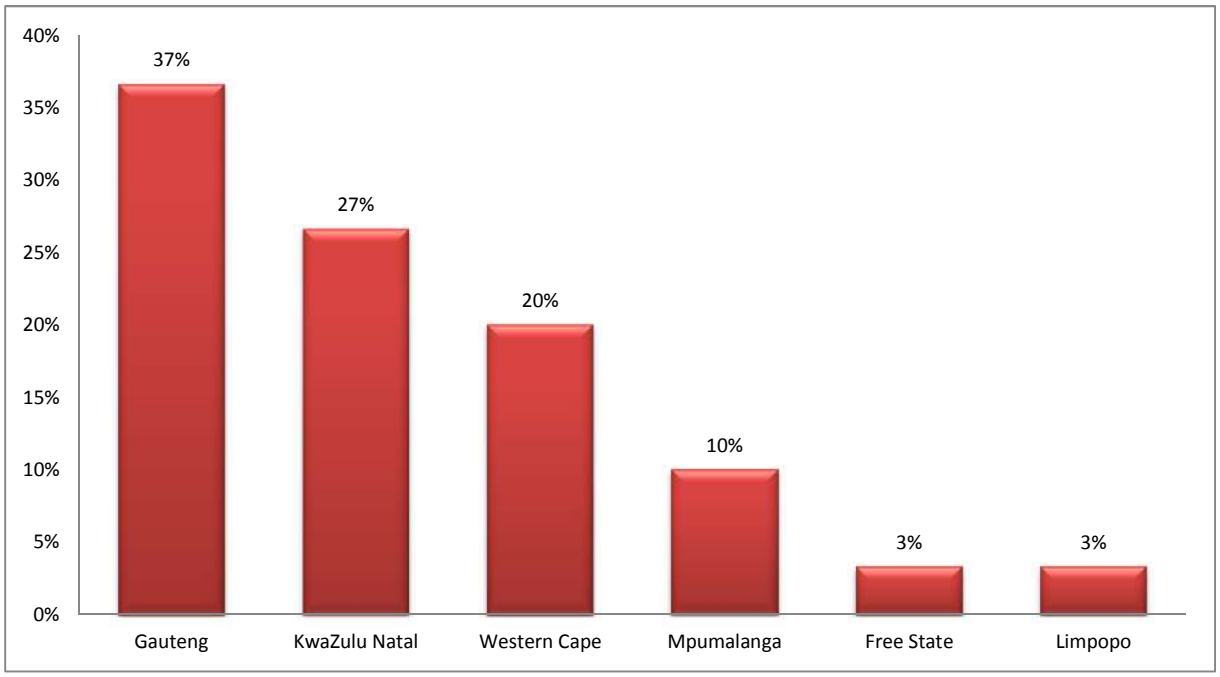


Source: UCS Tracer Study Survey (August 2012)

5.2.2. Employers

The majority (11) of the employer respondents were from Gauteng, eight were from KZN, six from Western Cape, three from Mpumalanga, and one apiece from Limpopo and Free State.

Figure 9: Employers by Province (n=30)

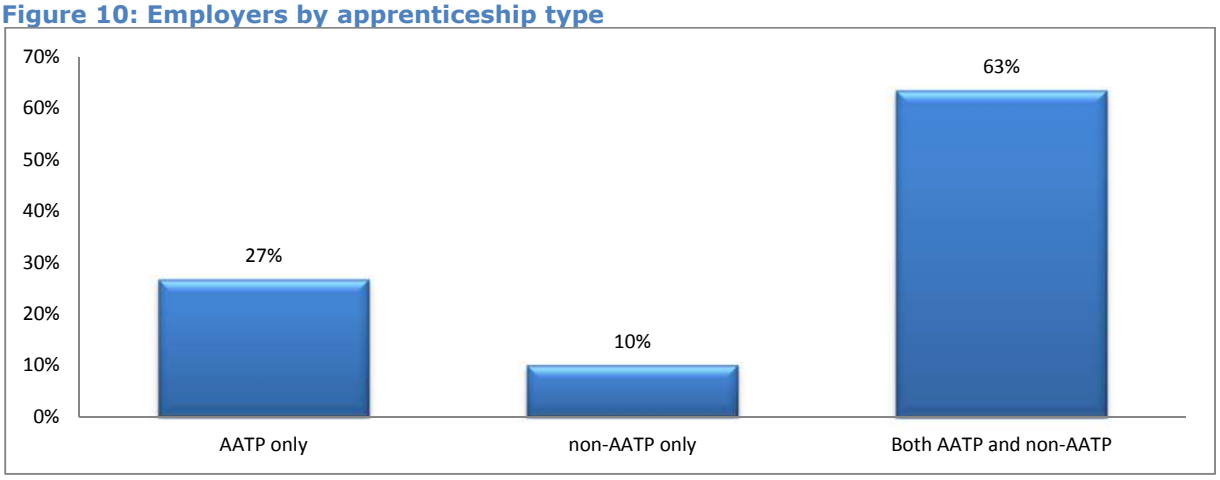


Source: UCS Tracer Study Survey (August 2012)

As indicated above, a total of 30 employers were sampled and interviewed. The respondents included training and development managers (20), human resource managers (5), directors (2), financial manager (1), marketing manager (1) and technologies manager (1).

Figure 10 below shows the percentage of employers that take on both project and control group artisans. The few (10%) companies that are shown as taking only non-AATP artisans used to take AATP apprentices as well, but were no longer doing so.

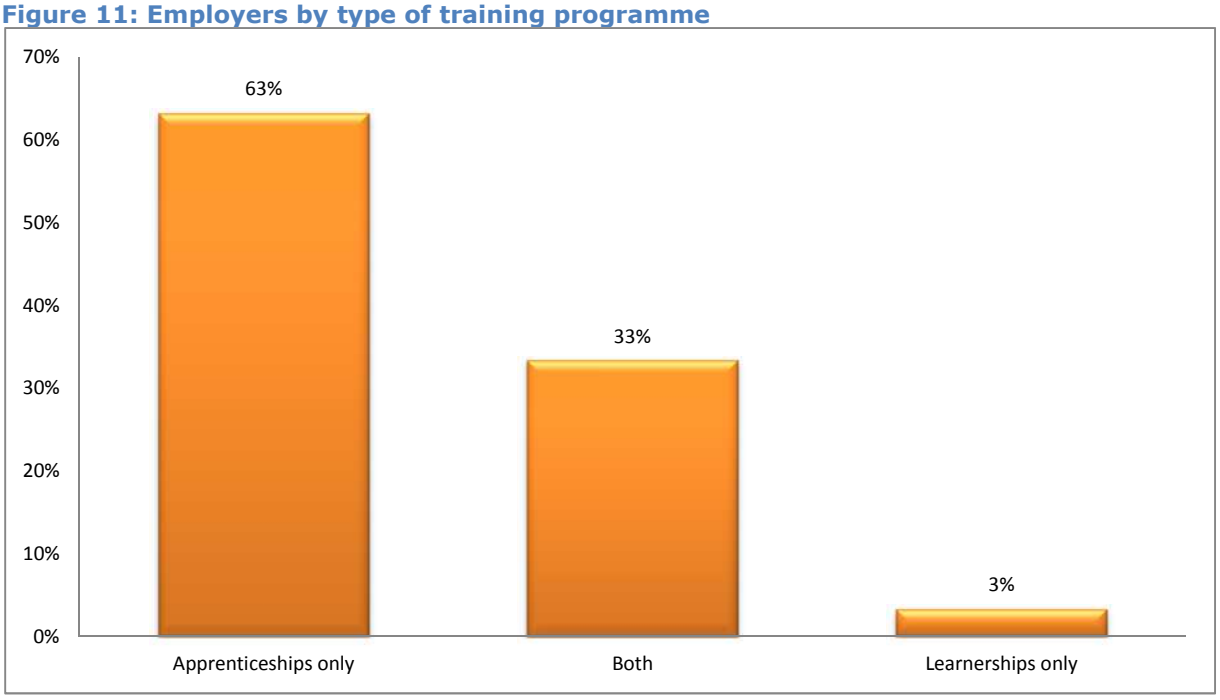
Figure 10: Employers by apprenticeship type



Source: UCS Tracer Study Survey (August 2012)

Figure 11 below shows the number of employers that take on both apprenticeships and learnerships. The employer that takes on learnerships only used to take apprenticeships as well, but no longer does.

Figure 11: Employers by type of training programme



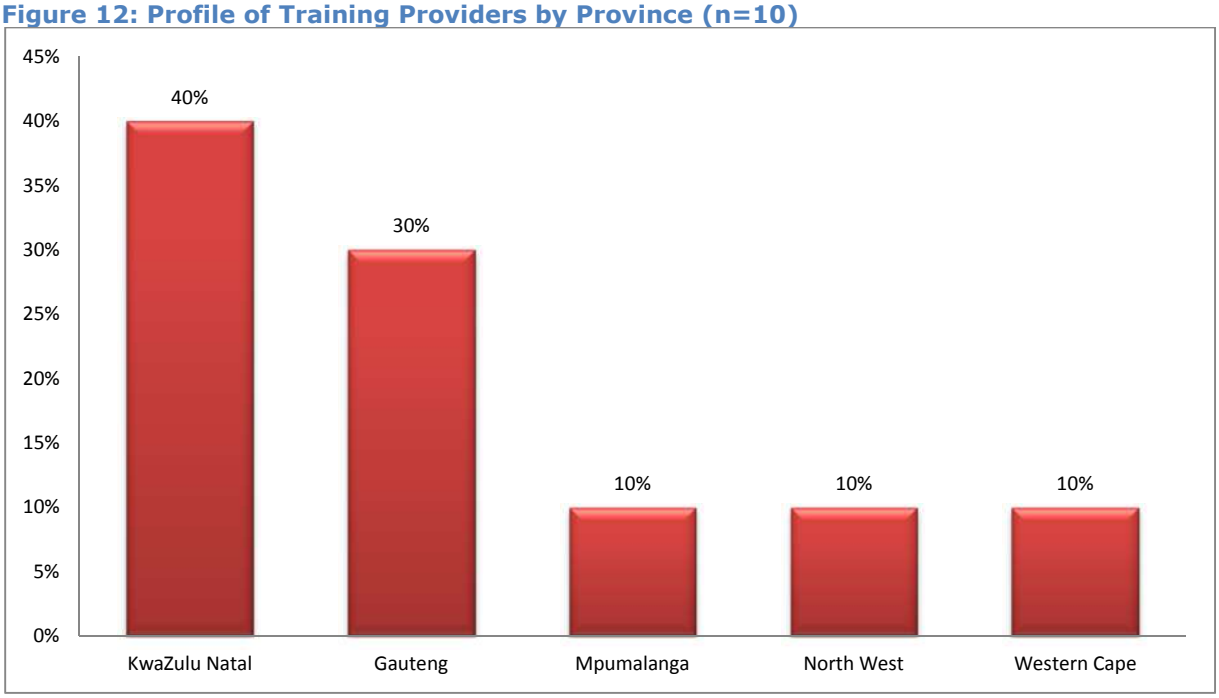
Source: UCS Tracer Study Survey (August 2012)

As one company only takes on learnerships, the rest of the analysis will consider the data for only 29 employer respondents. More than 50% of the employers interviewed started taking on apprentices in the first two years of the AATP's commencement.

5.2.3. Training Providers

The majority (40%) of the training provider respondents were from KZN, 30% were from Gauteng and 10% apiece from Mpumalanga, North West and Western Cape. Figure 12 below illustrates profile respondent training providers by province.

Figure 12: Profile of Training Providers by Province (n=10)

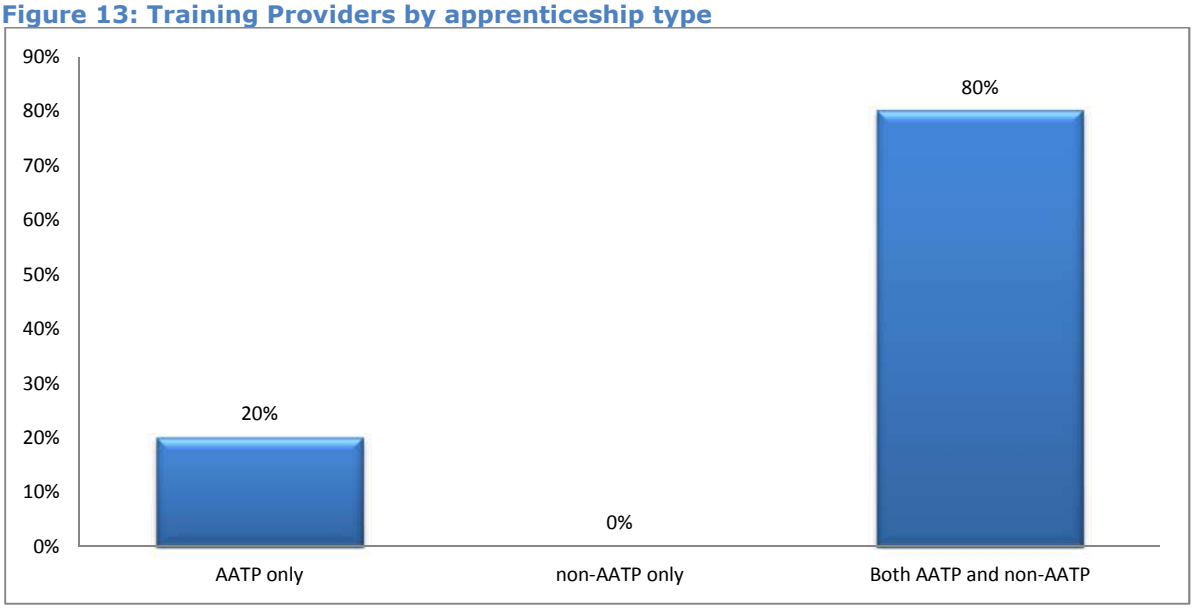


Source: UCS Tracer Study Survey (August 2012)

As indicated above, a total of 10 training providers were sampled and interviewed. The majority of the training providers (6) were external, three were internal and one was both an internal and external training provider.

Figure 13 below shows the number of training providers that take on both AATP and non-AATP apprenticeships. The majority (80%) take on both types of apprenticeships, while the remaining 20% take on AATP apprentices only.

Figure 13: Training Providers by apprenticeship type



Source: UCS Tracer Study Survey (August 2012)

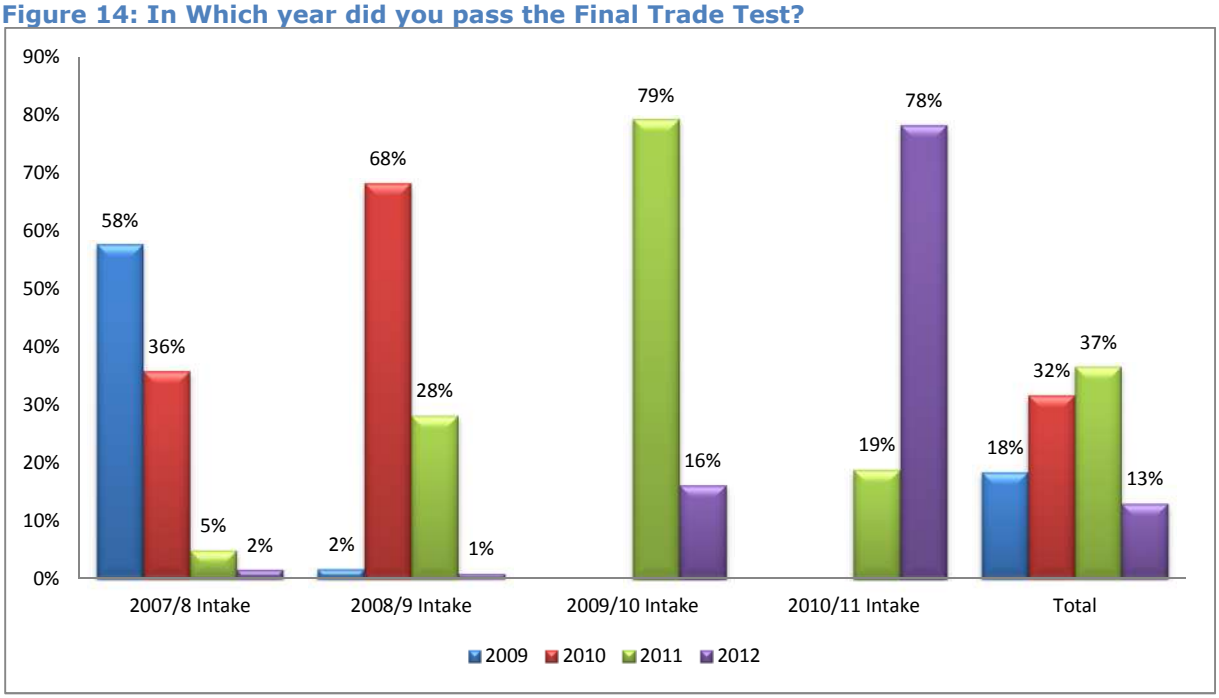
Half of the training providers (five) started training apprentices in the early 2000's, three started training in the 1980's, and one apiece in the 1970's and 1990's. All of the training providers interviewed started taking on apprentices in the first two years of the AATP's commencement.

5.3. High Level Findings

5.3.1. Passing the Trade Test

The study interrogated the trade test pass rates of the artisans. Figure 14 below shows that proportion of project artisans passing the trade test during the stipulated time (18 months) was increasing. The analysis reveals that 58% of Phase 1(2007/8 intake) respondents wrote and passed their final trade test in 2009 (the programme stipulated time). The proportion increased to 68% for Phase 2 (2008/9), 79% for Phase 3 (2009/10), and the rate is currently sitting at 78% for Phase 4 (2010/11). There is positive trend in pass rate, and completion of the programme within stipulated time.

Figure 14: In Which year did you pass the Final Trade Test?

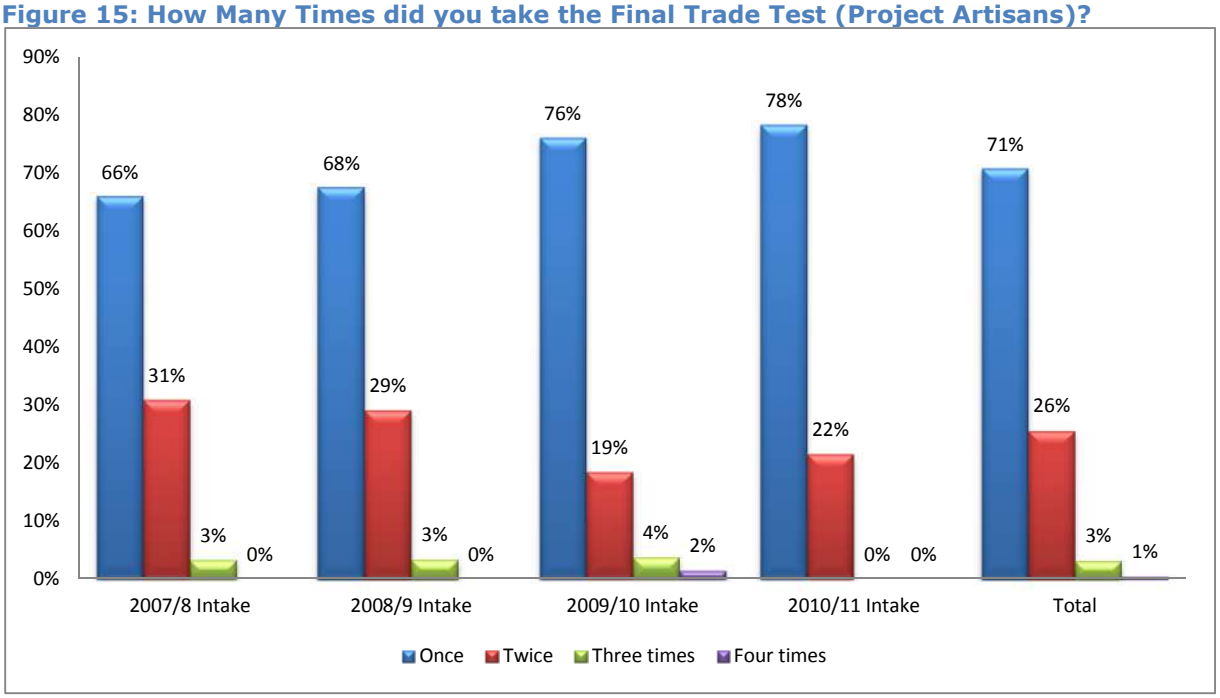


Source: UCS Tracer Study Survey (August 2012)

The study further analysed the number of times the project artisans had taken the final trade test by Phase. As shown in Figure 15 below, the hypothesis that the pass rate of the AATP apprenticeship programme has been improving is confirmed. The proportion of the respondents who passed their trade test 'once', during their first sitting, increased from 66% for Phase 1 to 78% Phase 4 (a 12% increase). The proportion of project artisans taking their trade test 'twice' and over has been decreasing over the years.

Overall, the proportion of project artisans who passed their trade test in their first sitting was 71%, those who passed in their second sitting was 26%, and those who passed in their third and fourth sitting were 3% and 1% respectively.

Figure 15: How Many Times did you take the Final Trade Test (Project Artisans)?

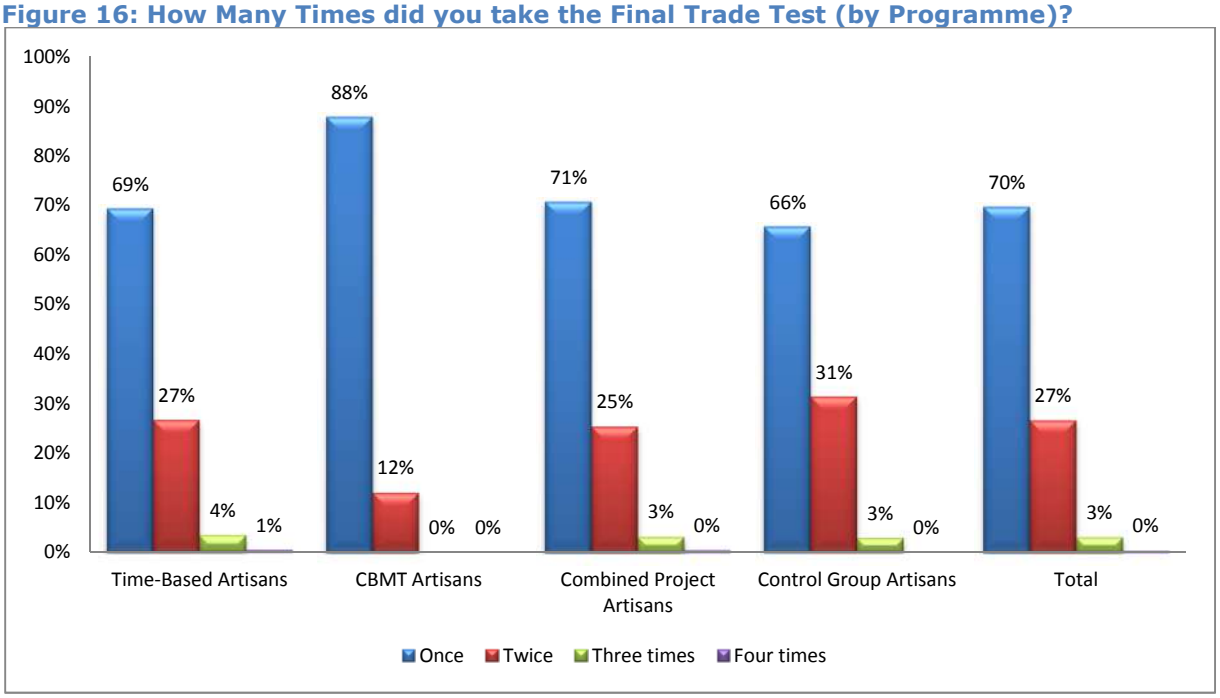


Source: UCS Tracer Study Survey (August 2012)

An analysis of the pass rate by programme shows (see Figure 16) that, for the CMBT project artisans had the highest proportion (88%) of apprentices passing their trade test in their first sitting, followed by Time-Based with 69%. Thus, the survey results suggest that the CBMT, or 'the regulated phased approach', to apprenticeship training increases the pass rate on the first attempt.

A comparison between the combined project and control group artisans (see Figure 16 below) shows that the combined project artisans had 71% apprentices passing at first sitting compared to 66% for control group artisans.

Figure 16: How Many Times did you take the Final Trade Test (by Programme)?



Source: UCS Tracer Study Survey (August 2012)

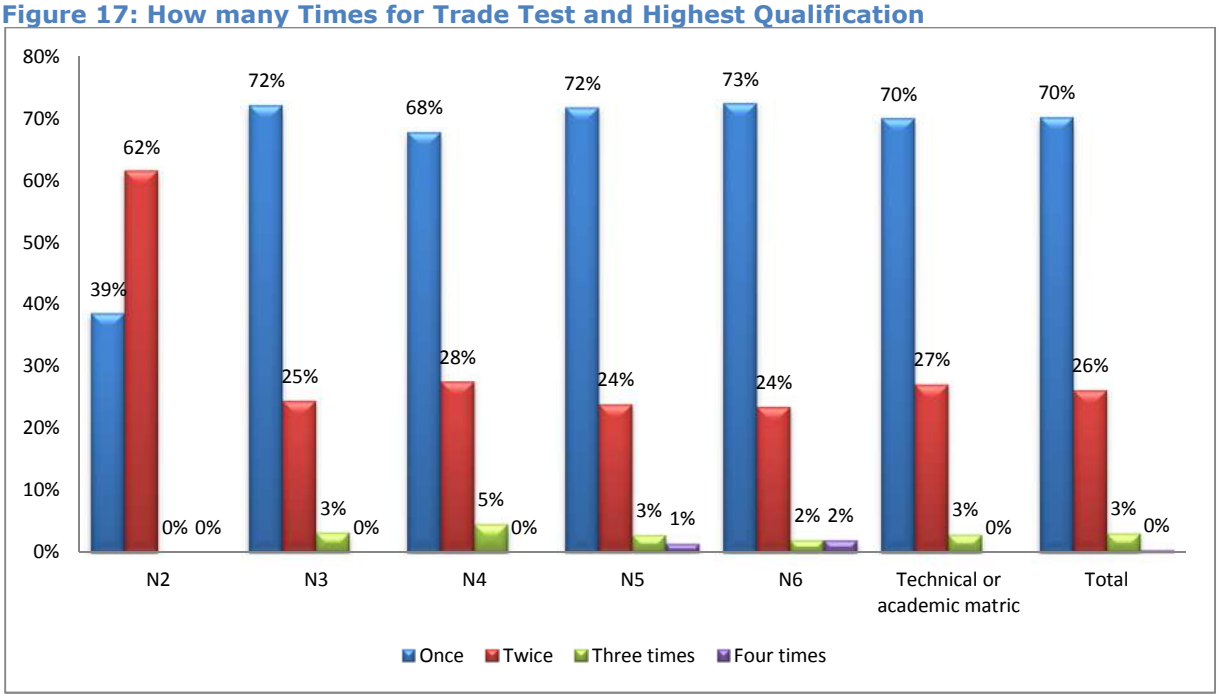
The study conducted a cross tabulation of the number of times apprentices had taken the final trade test by the highest qualification prior to apprenticeship entrance. The results illustrated on Figure 17 below shows that:

- There is no significant difference between the percentage of apprentices passing the trade test at first sitting between an N3, N4, N5, N6 Matric graduates; averaging at 70%.
- The percentage of N2 graduates who passed their trade test at first sitting was very low; 40% for project artisans and 33% for control group artisans. This suggests that N2 graduates struggles to pass an artisan apprenticeship programme.
- Overall, a higher proportion of project artisans passed their trade test at the first sitting compared to the control group- 71% and 66% respectively.

Please that the 'N' courses[11], as the N1 to N6 courses used to be referred to, were scrapped by the Government and Further Education and Training (FET) colleges' regime was established.

[11] Under the 'N' courses dispensation, students were sent by the employers for the ten week 'block release' course to do theory. These ten week courses were completed in a trimester. This means that students came to the colleges with work experience, hence they would incorporate theory into the practical component of their work to complete an 'N' course. The courses were done in six block releases, hence called N1, N2, N3, N4, N5 and N6.

Figure 17: How many Times for Trade Test and Highest Qualification

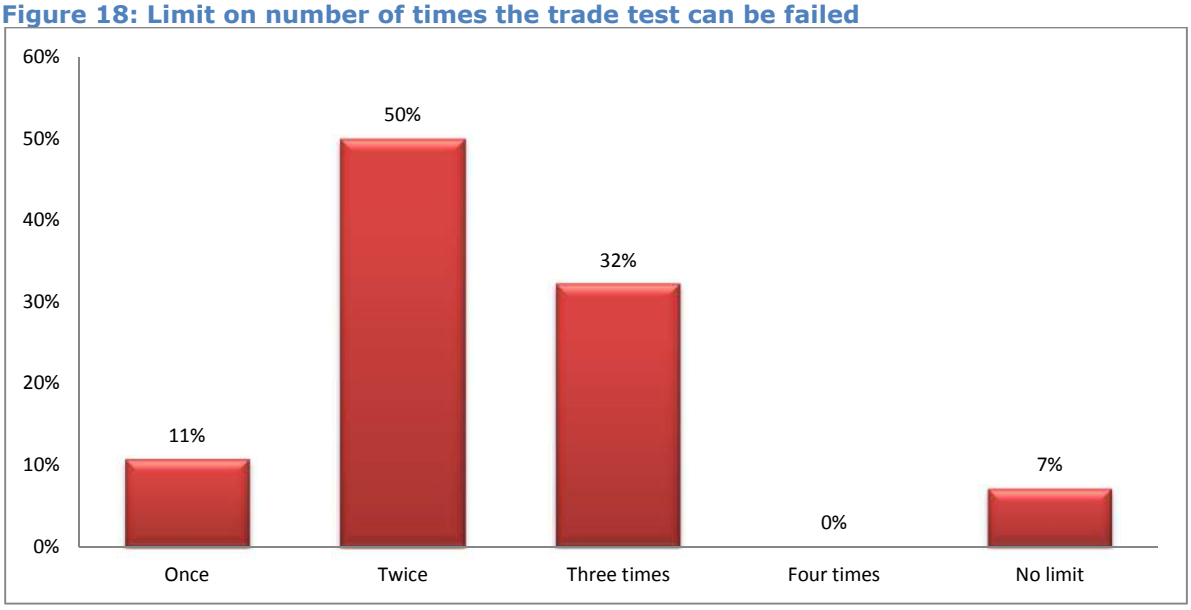


Source: UCS Tracer Study Survey (August 2012)

The researcher asked the employers if they impose a limit on the number of times an apprentice can fail the final trade test. Figure 18 below shows the limit imposed by employers on the number of times an apprentice can fail the final trade test. Half the respondents are aligned to the industry standard of twice. Some of the companies stated that apprentices would need to pay for the test and test preparations themselves should they not pass the trade test the first time.

One of the employer respondents, whose company retains almost 100% of its apprentices, stated that his pass rate on the first attempt is generally quite high (approximately 79%), and believes that it is because they guarantee their apprentices a limited-duration contract upon successful completion of the trade test. He believes that this incentivises the apprentices to complete their apprenticeships as quickly as possible.

Figure 18: Limit on number of times the trade test can be failed

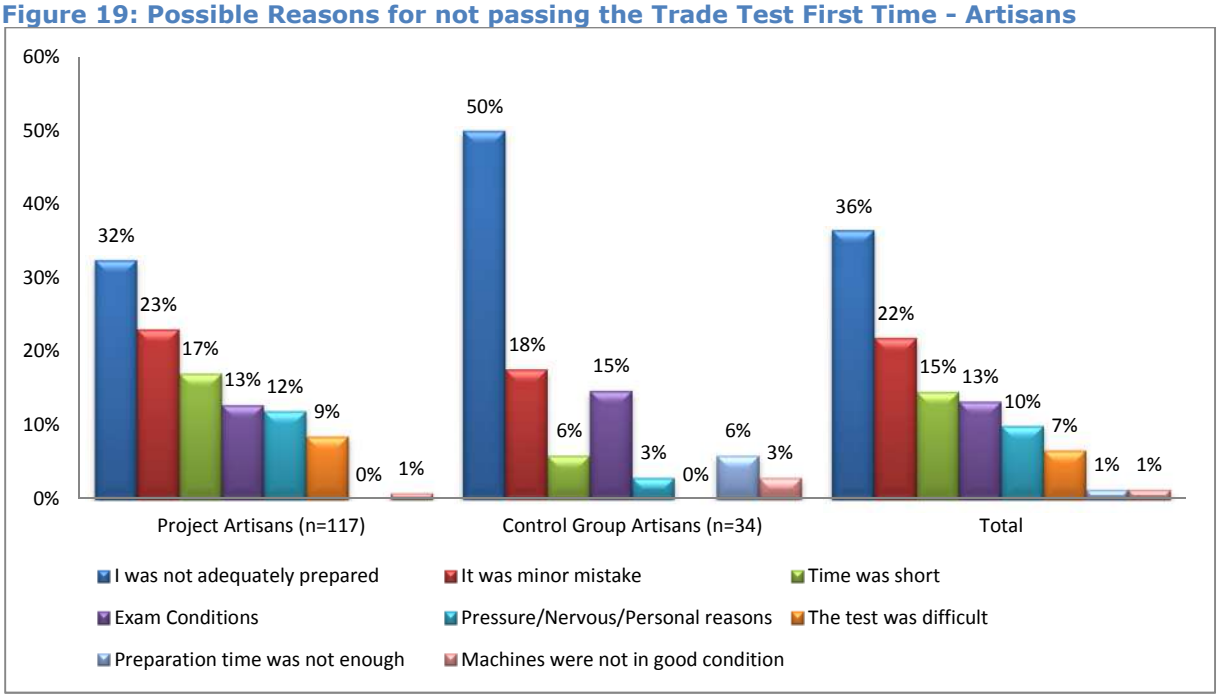


Source: UCS Tracer Study Survey (August 2012)

Of those artisan respondents who did not pass their trade test at first sitting, researchers asked them to briefly describe the possible reason for not passing the first time. The majority (36%) of the total respondents said that 'they were not adequately prepared', 22% said 'it was a minor mistake', 13% said 'time was short' and 13% blamed some 'exam conditions'. See Figure 19 below.

It is however interesting to note that more (50%) control group artisans complained about time as compared to 32% of the project artisans.

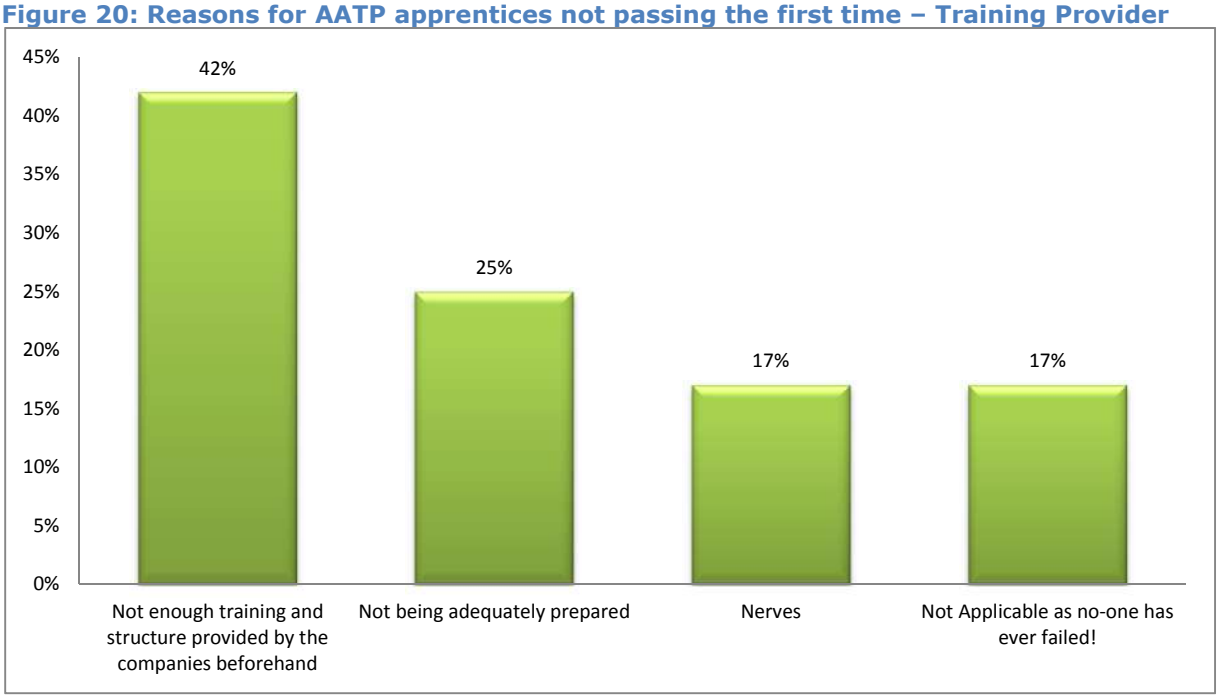
Figure 19: Possible Reasons for not passing the Trade Test First Time - Artisans



Source: UCS Tracer Study Survey (August 2012)

Figure 20 below shows the training providers' perspectives regarding the reasons why AATP apprentices do not pass the trade test the first time. Note that this was a multiple answer question. Twelve comments were received, with the most common (five) being that not enough training and structure is provided by the apprentices' companies before they are sent to the training institutes.

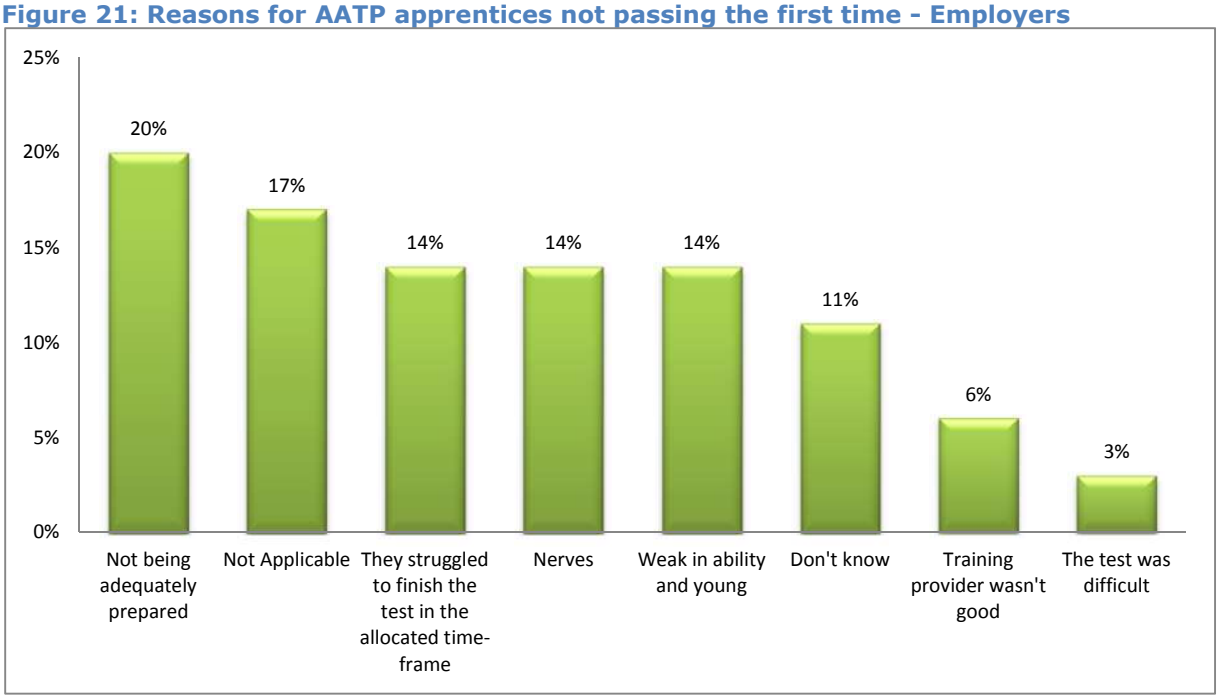
Figure 20: Reasons for AATP apprentices not passing the first time – Training Provider



Source: UCS Tracer Study Survey (August 2012)

The findings from the Training Providers concur with those from the employers as seen in the figure below. Figure 21 below shows the employers' perspectives regarding the reasons why AATP apprentices do not pass the trade test the first time. Note that this was a multiple answer question. For those six employers where "not applicable" applied, the main reason given for this was that a 100% (or very close) pass rate on the first time attempt has been experienced at the company.

Figure 21: Reasons for AATP apprentices not passing the first time - Employers



Source: UCS Tracer Study Survey (August 2012)

5.3.2. Artisan Employment

One of the main objectives of a tracer study is to find out the current activities of the qualified artisans. The respondents were asked to answer the question: *Are you employed now?* The response was supposed to be a 'Yes' or 'No'. Out of the total sample size of 510 apprentices, 104 (20%) indicated that they were 'not working'. Of those who said they were 'not working', 4 (0.78%) were not actively looking for employment.

It would be important to explain some few conceptional or definitional issues on unemployment. In South Africa, there are two definitions of unemployment commonly used by the Statistics South (Stats SA)[12]; (i) the official definition of unemployment (also sometimes termed the narrow definition); and (ii) the expanded definition of unemployment. In the official definition, the unemployed are those people within the economically active population who: (a) did not work during the seven days prior to the interview; (b) want to work and are available to start work within two weeks of the interview; and (c) have taken active steps to look for work or to start some form of self-

[12] http://www.statssa.gov.za/news_archive/14oct2004_1.asp

employment in the four weeks prior to the interview. In the expanded definition, the third (c) criterion (some sort of work-seeking activity) is dropped.

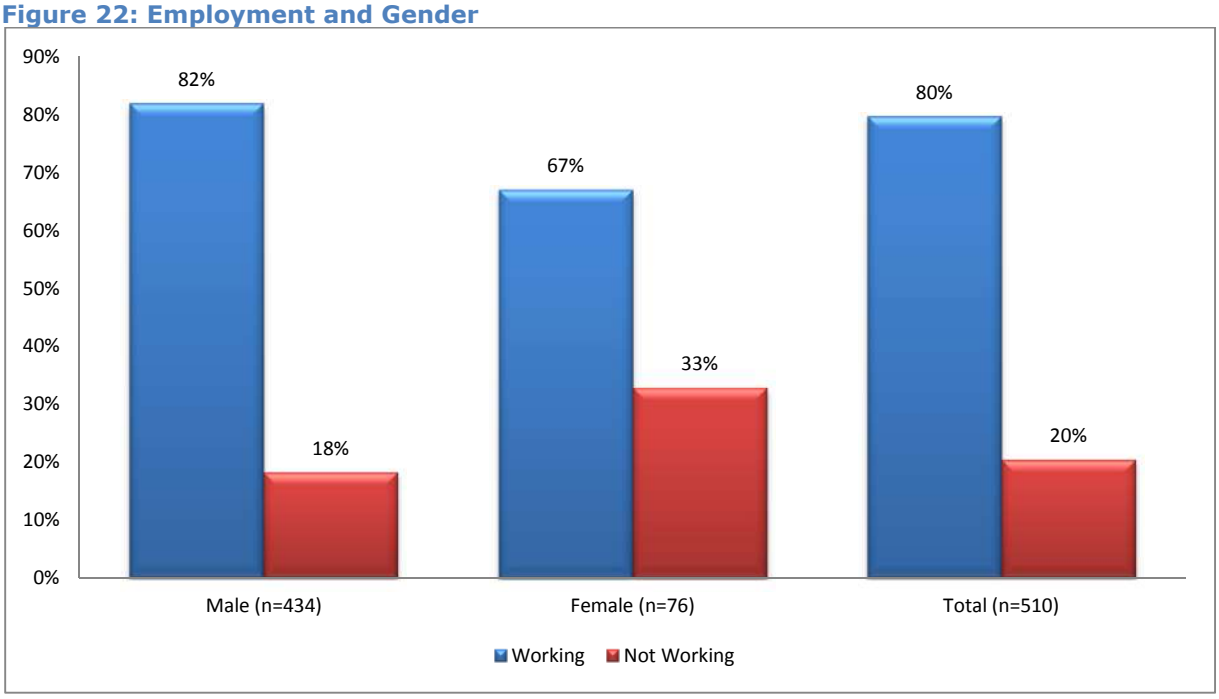
Though this tracer study does not follow the strict definition of unemployment as defined by Stats SA, it makes the following distinctions:

Table 3: Definition of Unemployment[13]

Total Sample	Not Working/ Without a job (number)	Percentage of Total Sample Size	Description
510	104	20.40%	Not working
	4	0,78%	Not actively looking for work
	100	19.61%	Actively looking for work
	20	3,92%	Frictional Unemployment (less than 3 months actively looking)
	80	15,69%	Unemployed (As per definition above)

21% (20) of the 'not working' had been looking for a job for 'less than 3 months' and therefore can be classified as frictionally unemployed. Thus, 15.69% of artisan respondents can be classified as 'unemployed', this represents around 1,759 artisans.

Figure 22: Employment and Gender

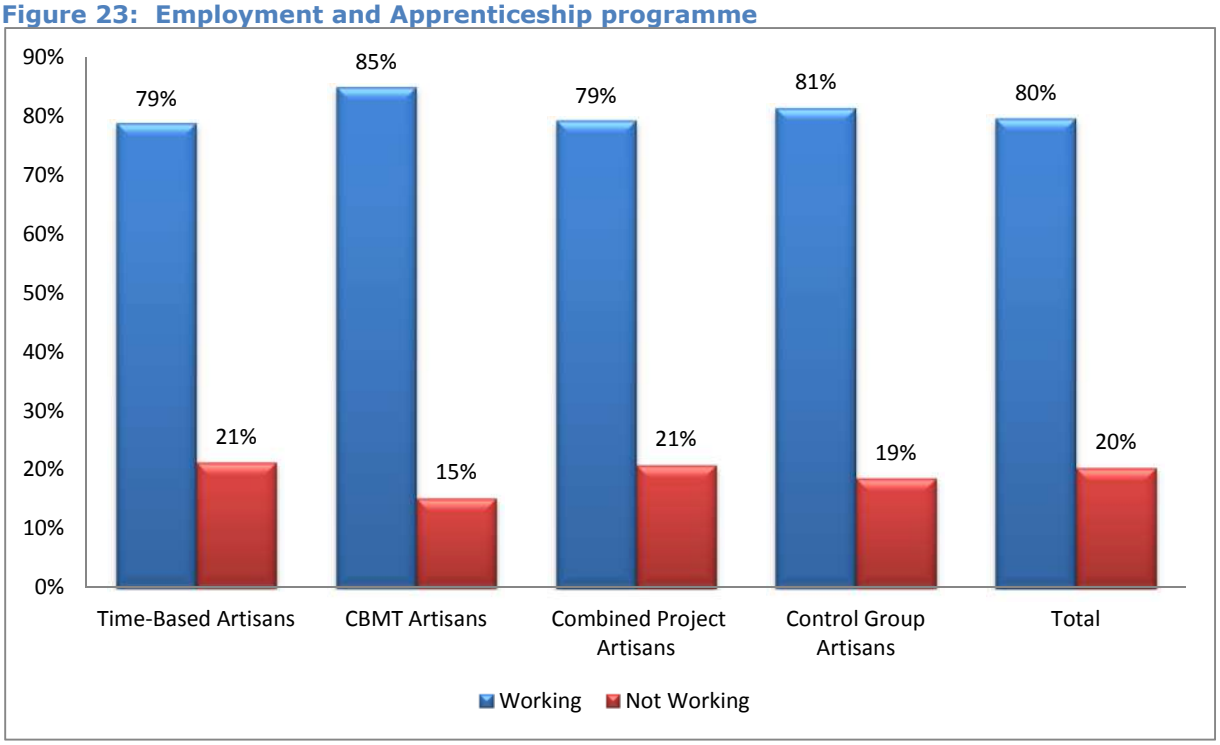


Source: UCS Tracer Study Survey (August 2012)

[13]Details on artisans unemployment is discussed in the next section.

Figure 22, above shows that 33% of female artisans interviewed are currently not working compared to 18% of male artisans. There was no marked difference across the apprenticeship programmes with regards those that are working and those that are not working.

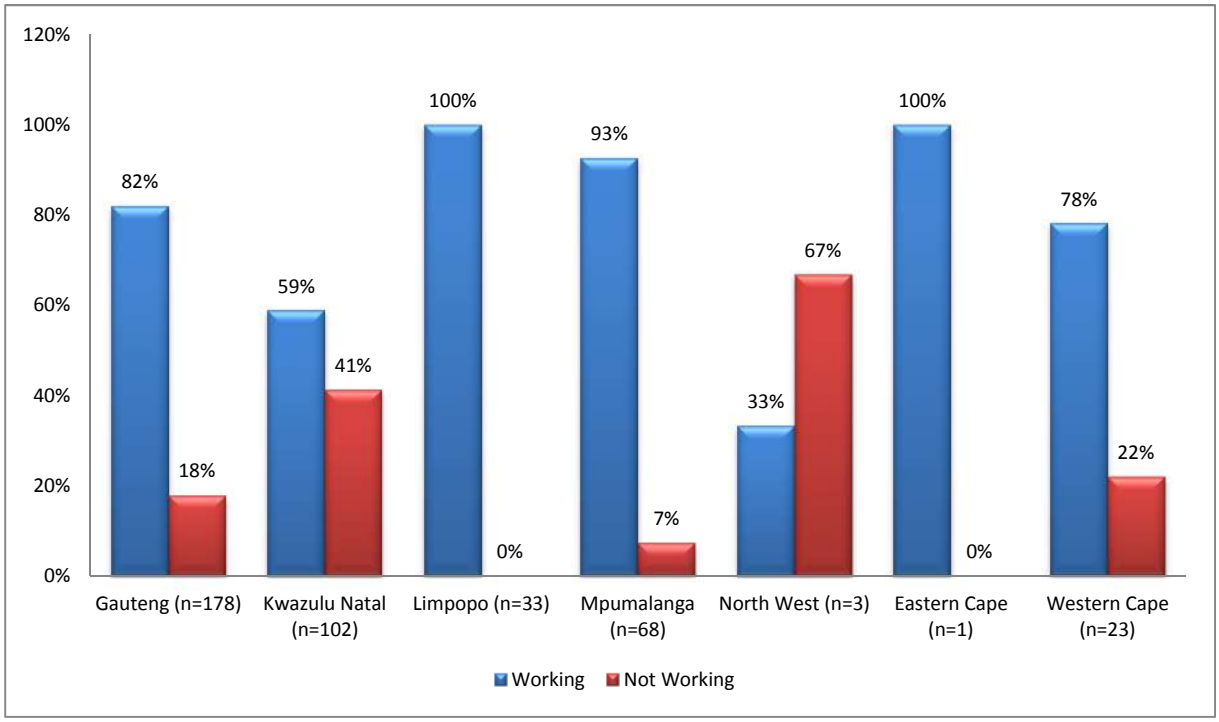
Figure 23: Employment and Apprenticeship programme



Source: UCS Tracer Study Survey (August 2012)

Figure 24 below shows that 41% of KZN artisans interviewed are not working, compared to just 18% of Gauteng artisans. This indicates that in some provinces project artisans might be more vulnerable than in other provinces. For control group artisans there is no marked difference in percentages of artisans who are currently working.

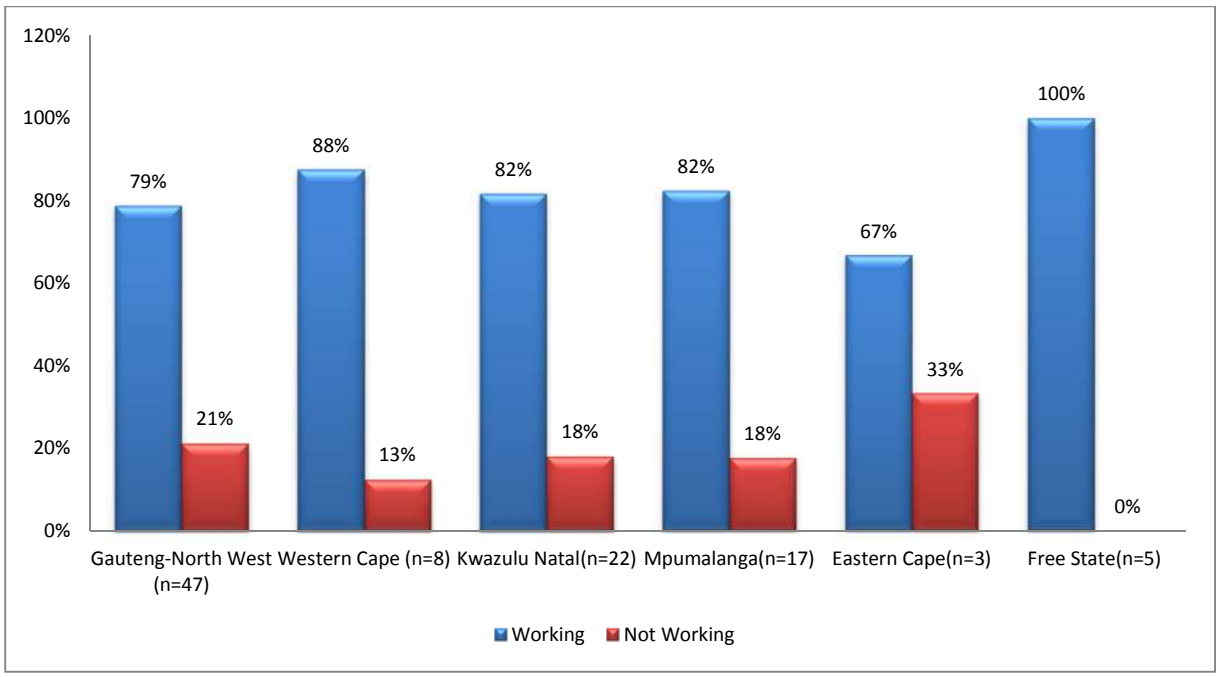
Figure 24: Employment and Province - AATP



Source: UCS Tracer Study Survey (August 2012)

For control group artisans' employment figures were largely consistent across the provinces as seen in Figure 25 below.

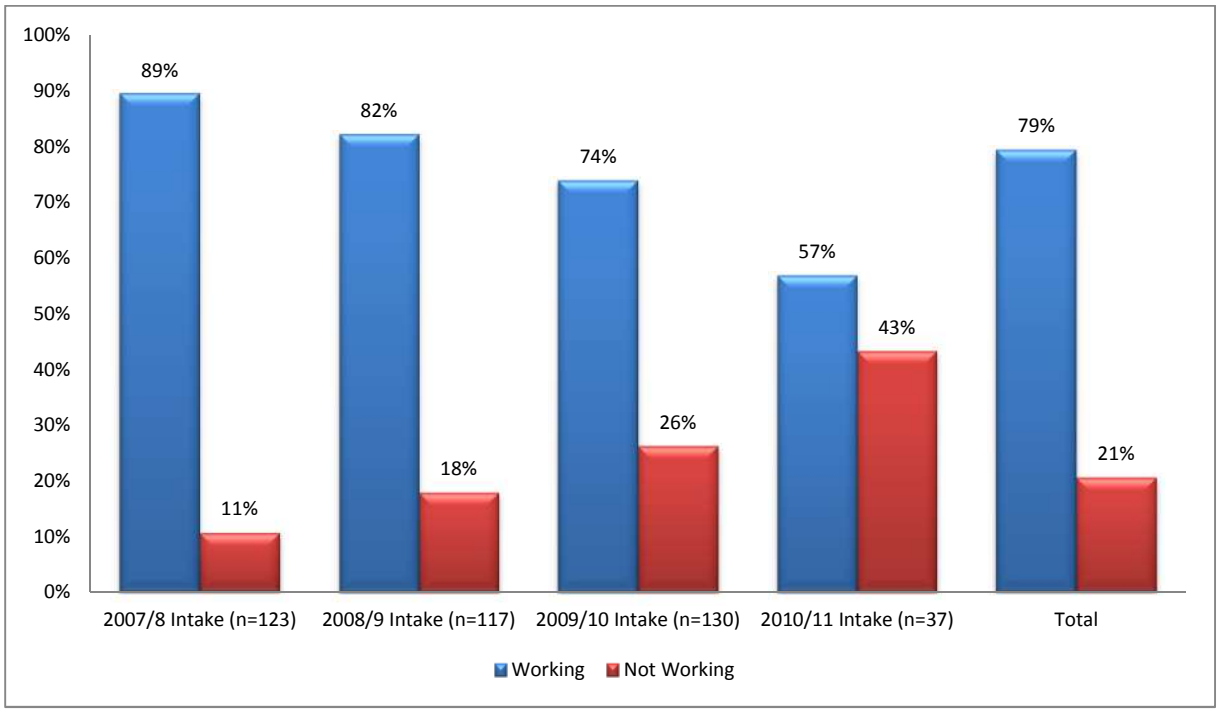
Figure 25: Employment and Province - Non-AATP



Source: UCS Tracer Study Survey (August 2012)

43% of the artisans from the 2010/11 Intake are currently not working compared to only 11% of the 2007/8 Intake.

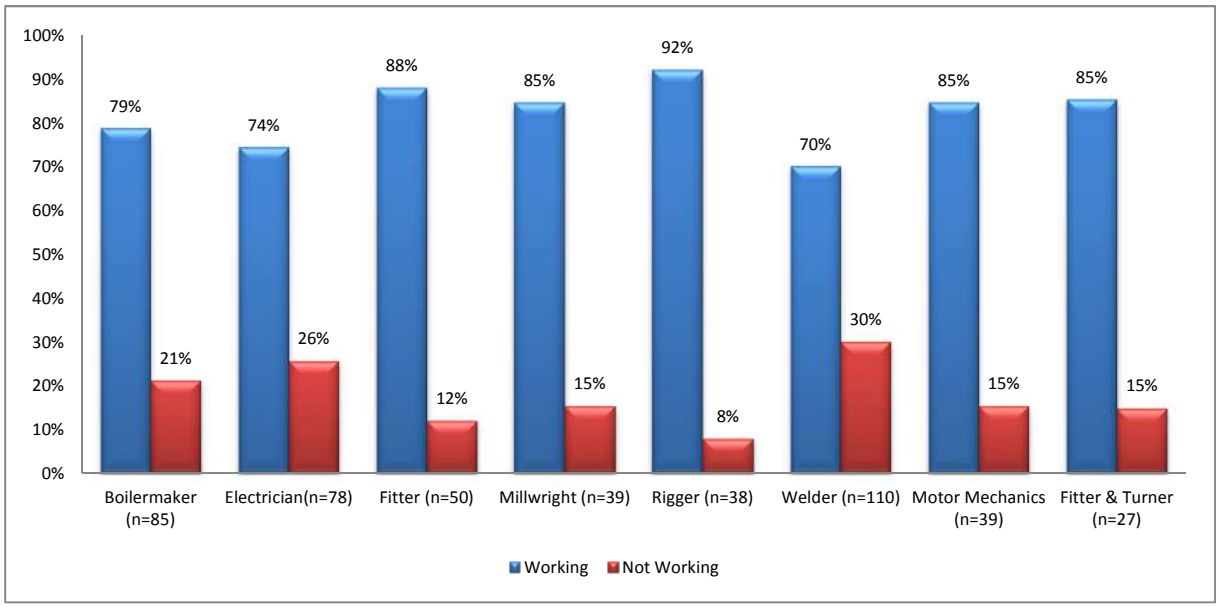
Figure 26: Employment and AATP Phase



Source: UCS Tracer Study Survey (August 2012)

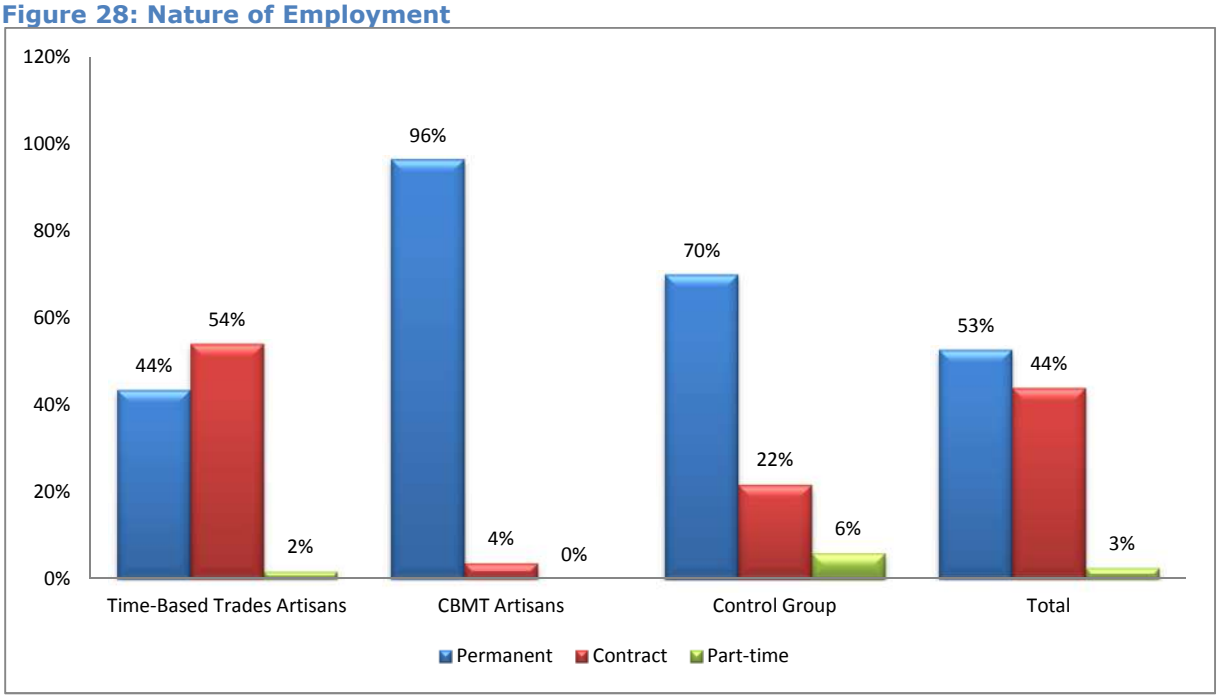
A comparison across the trades shows that 30% of welders are not working, as well as 26% of electricians and 21% of Boilermakers. It can be inferred that there is an oversupply of artisans in particular trades.

Figure 27: Employment and Trade



Source: UCS Tracer Study Survey (August 2012)

Figure 28: Nature of Employment



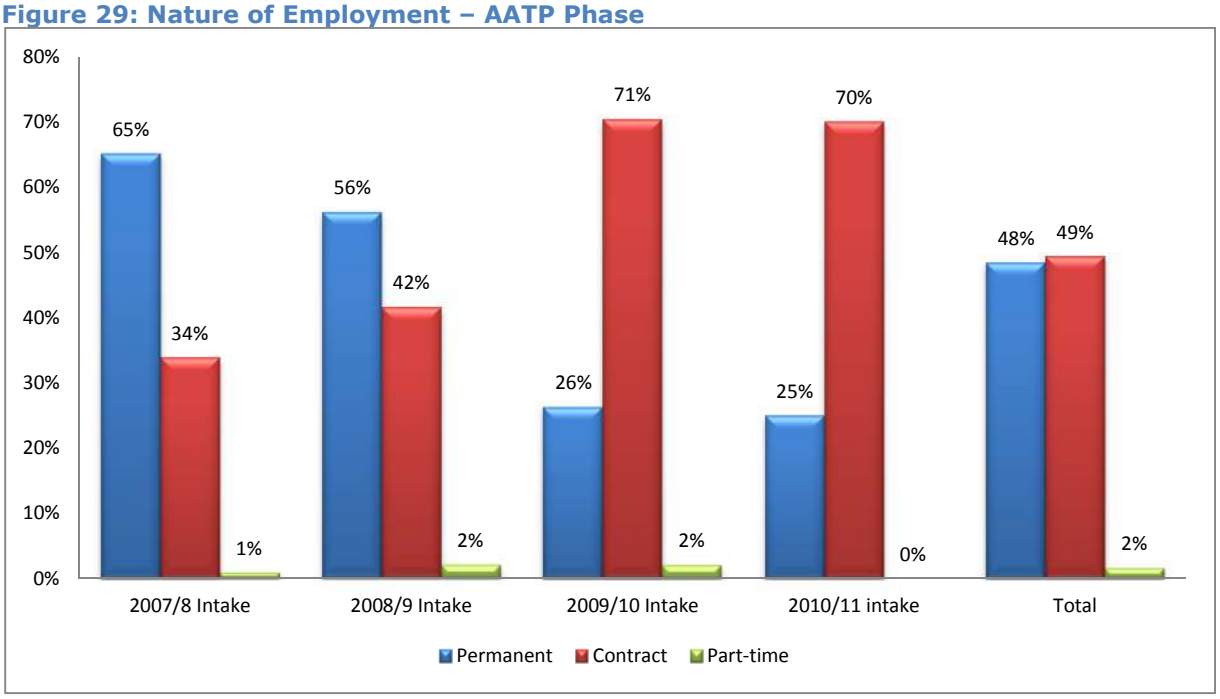
Source: UCS Tracer Study Survey (August 2012)

Figure 28, above shows that more than half (53%) of the respondent artisans were permanently employed, 44% were on contract while 3% were working on a part-time bases. The Time-Based project artisans showed the majority (54%) of its qualified artisans on contract.

Respondent artisans were asked to indicate the ownership structure of the company they were working for. 93% indicated that they were working for private owned companies. It can be therefore inferred that the private sector is the major employer of artisans in South Africa.

The study further analysed the proportion of those employed and nature of employment by programme phase. Figure 29 below shows that AATP permanent employment is negatively related to programme phases: thus those artisans who qualified first are more likely to be permanently employed compared to the recently qualified artisans. On the other side, contract employment is positively correlated with programme phase: most recently graduated artisans were still on contract. This phenomenon and nature of employment is generally expected given the labour market practices where employees are put on probation or contract before being confirmed permanent.

Figure 29: Nature of Employment – AATP Phase



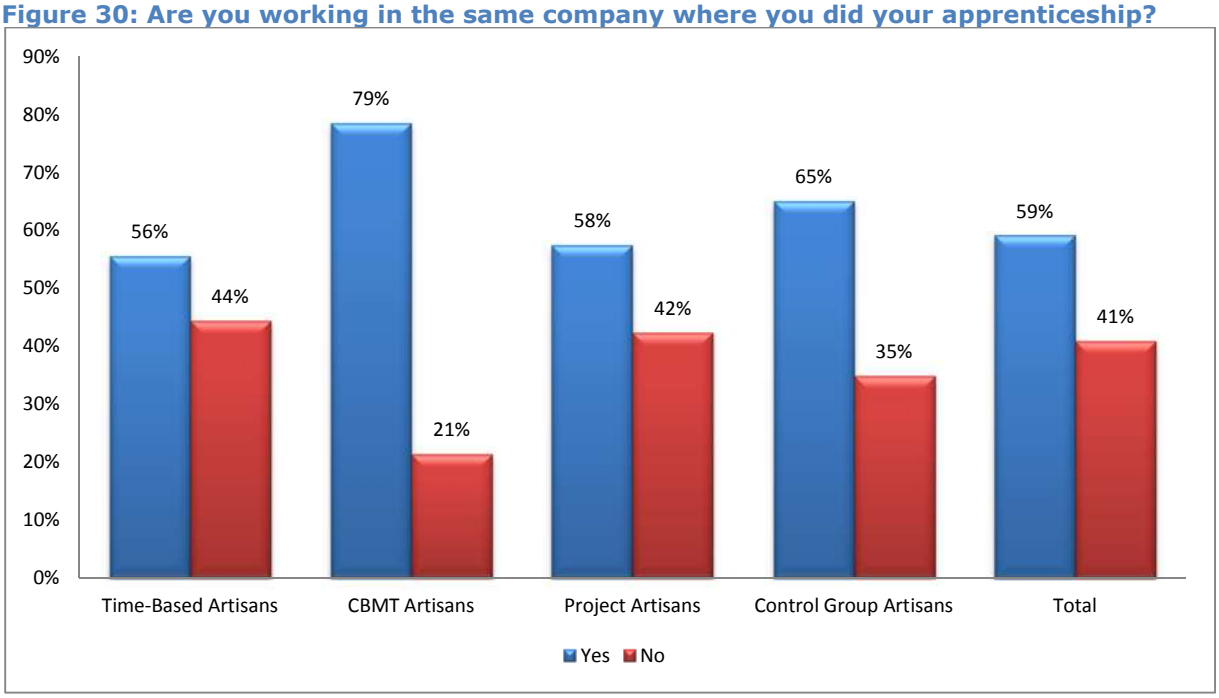
Source: UCS Tracer Study Survey (August 2012)

5.3.3. Artisan Employment Mobility

One of the objectives this tracer study was to determine the rate of retention across the project artisans in the original training company. The respondents were asked to answer the question: *Are you working in the same company where you did your apprentice?* The response was supposed to be a 'Yes' or 'No'. Out of the total sample size of 510 apprentices who are working, 59%indicated that they are working at the same company they completed their apprenticeship. The retention rate of control group artisans was higher with 65% of the respondents still working at the same company, whilst for project artisans 58% of the respondents were working at the same company they completed

their apprenticeship. The highest retention rate was for CBMT artisans, as 79% of them were still working at the company they did their apprenticeship.

Figure 30: Are you working in the same company where you did your apprenticeship?

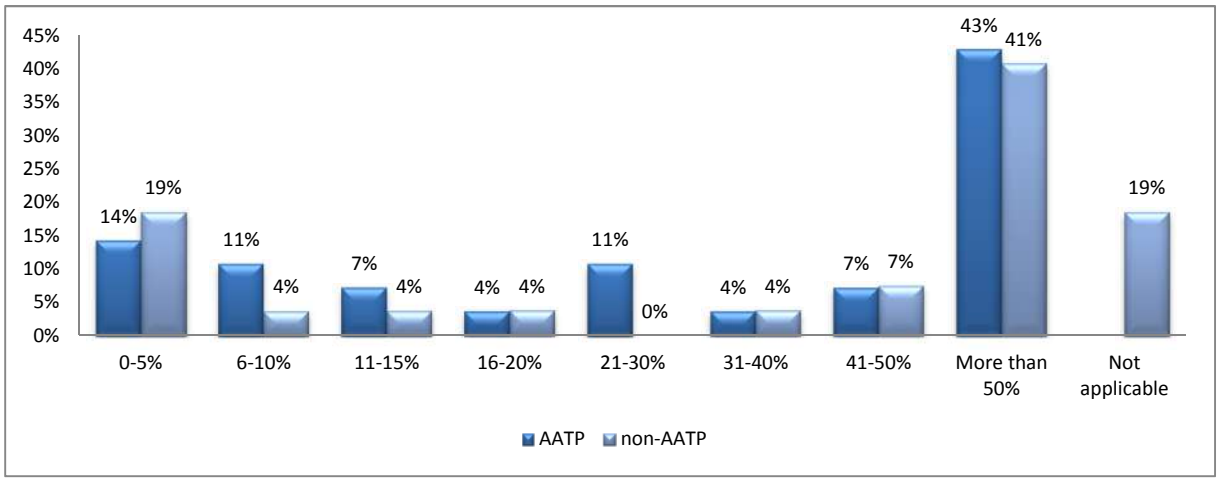


Source: UCS Tracer Study Survey (August 2012)

Further analysis of the data shows that artisan respondents from the 2007/8 Intake (Phase 1) were more likely (50%) to have left their employer than the subsequent intakes. Mobility patterns might therefore be explained by the time elapsed since passing the trade test.

The findings from the artisans interviews are agreement with those from the employers as 41% of the employers stated they retain more than 50% of the apprentices they train. Error! Reference source not found. below shows a comparison of the percentages of project artisans and control group artisans retained by the employers. The findings indicate fairly similar retention rates for the most part.

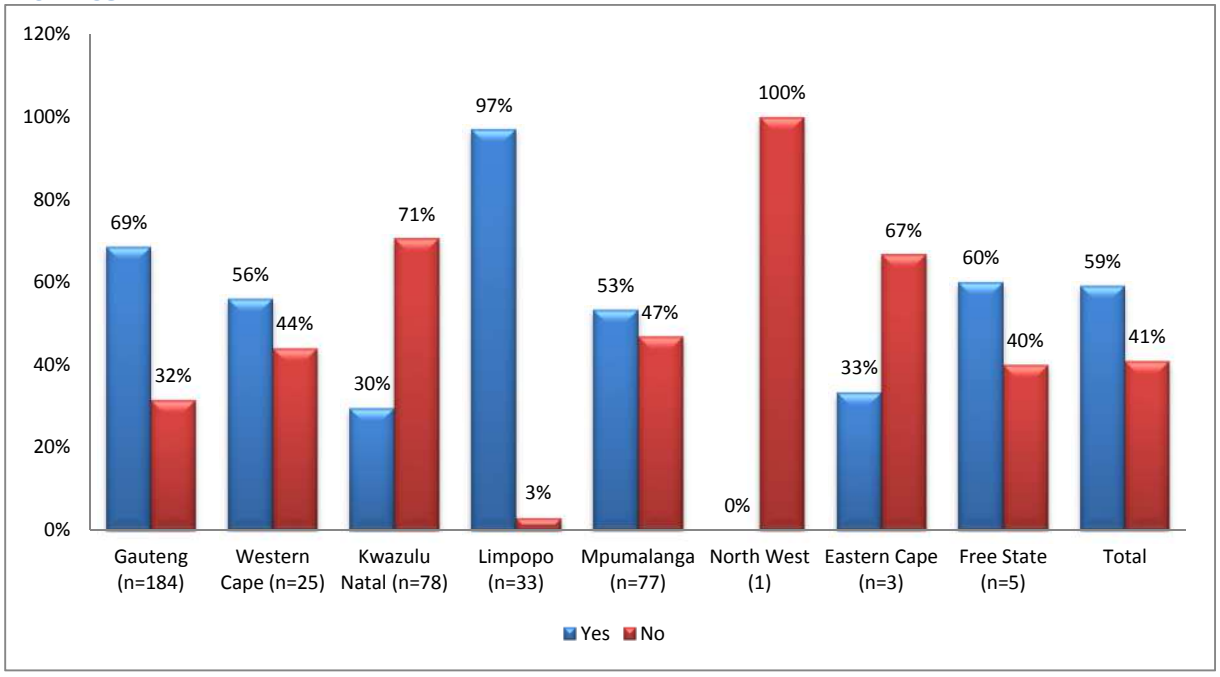
Figure 31: Comparison of the percentages of AATP and non-AATP apprentices retained



Source: UCS Tracer Study Survey (August 2012)

At a provincial level, respondent artisans from KwaZulu-Natal were most likely to have left their apprenticeship employer with 71% of them no longer working at the company they completed the apprenticeship.

Figure 32: Are you working in the same company where you did your apprenticeship? - Province

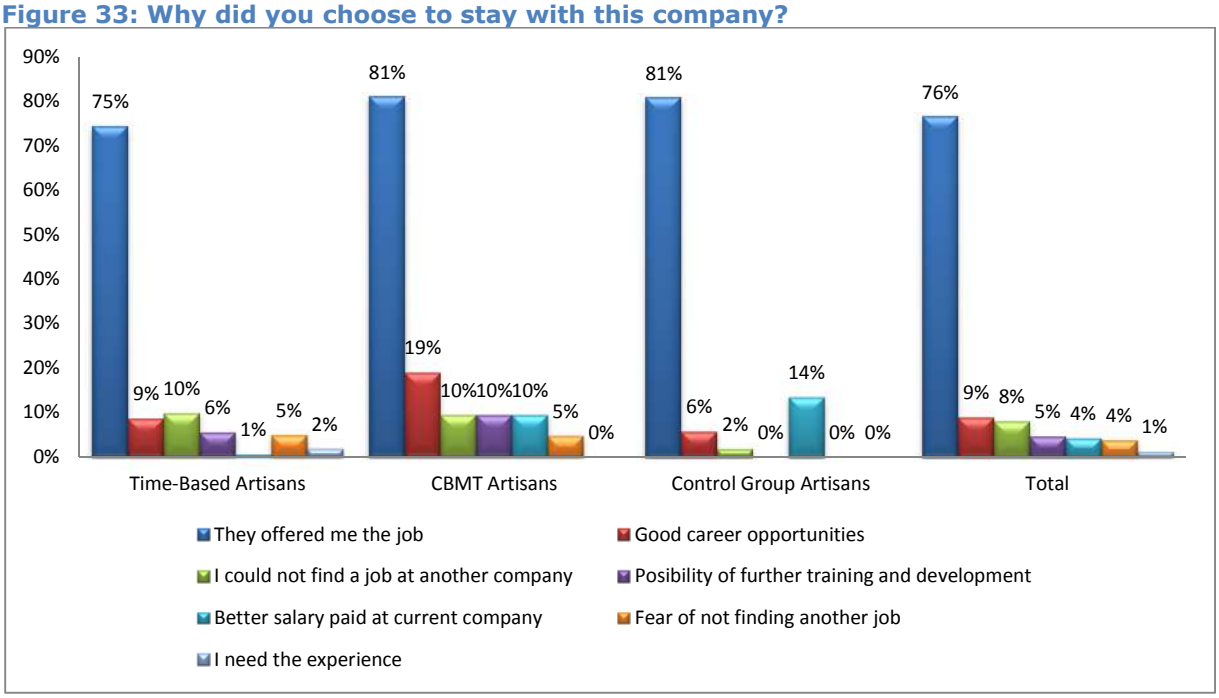


Source: UCS Tracer Study Survey (August 2012)

As shown in Figure 32 above, Limpopo had the highest retention rate; with 97% of the respondent artisans interviewed still working at the company they completed their apprenticeship.

The study also aimed to determine the reasons why artisan respondents chose to leave or remain with original training company. Researchers asked the artisan respondents *'Why did you choose to stay with this company'*. 76% of the artisan respondents indicated the job offer as the reason they chose to stay.

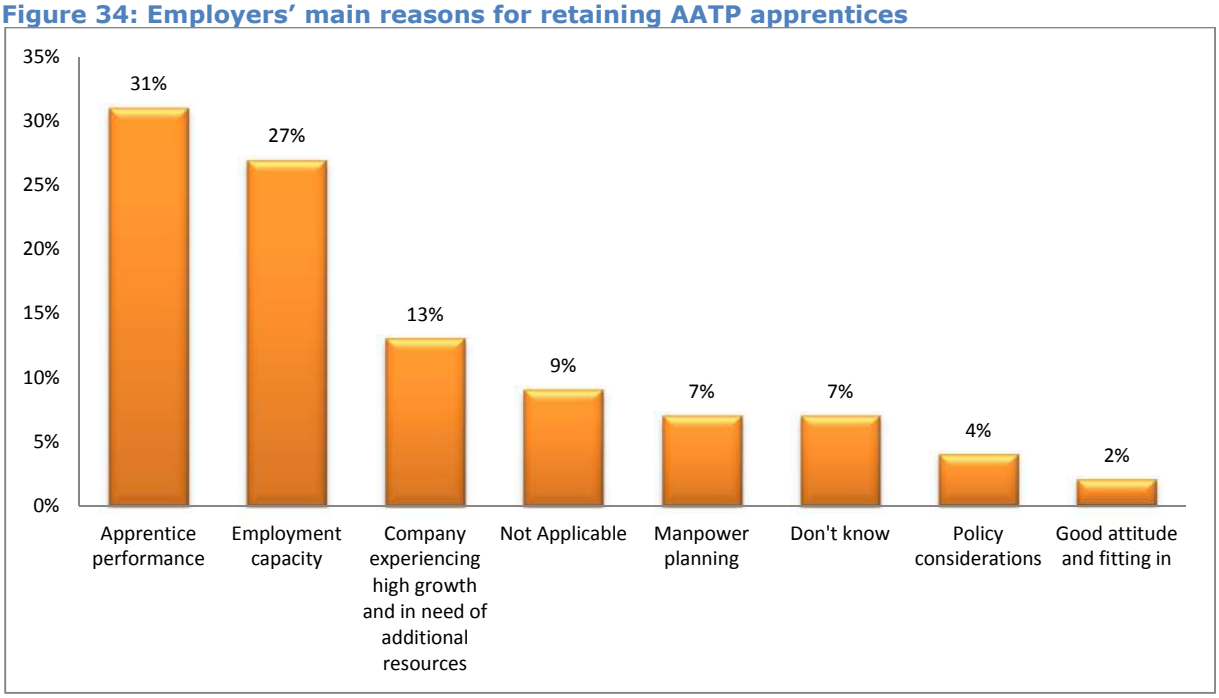
Figure 33: Why did you choose to stay with this company?



Source: UCS Tracer Study Survey (August 2012)

On the other hand, the most common reasons for retaining apprentices by employers were cited as apprentice performance and employment capacity, followed by high growth

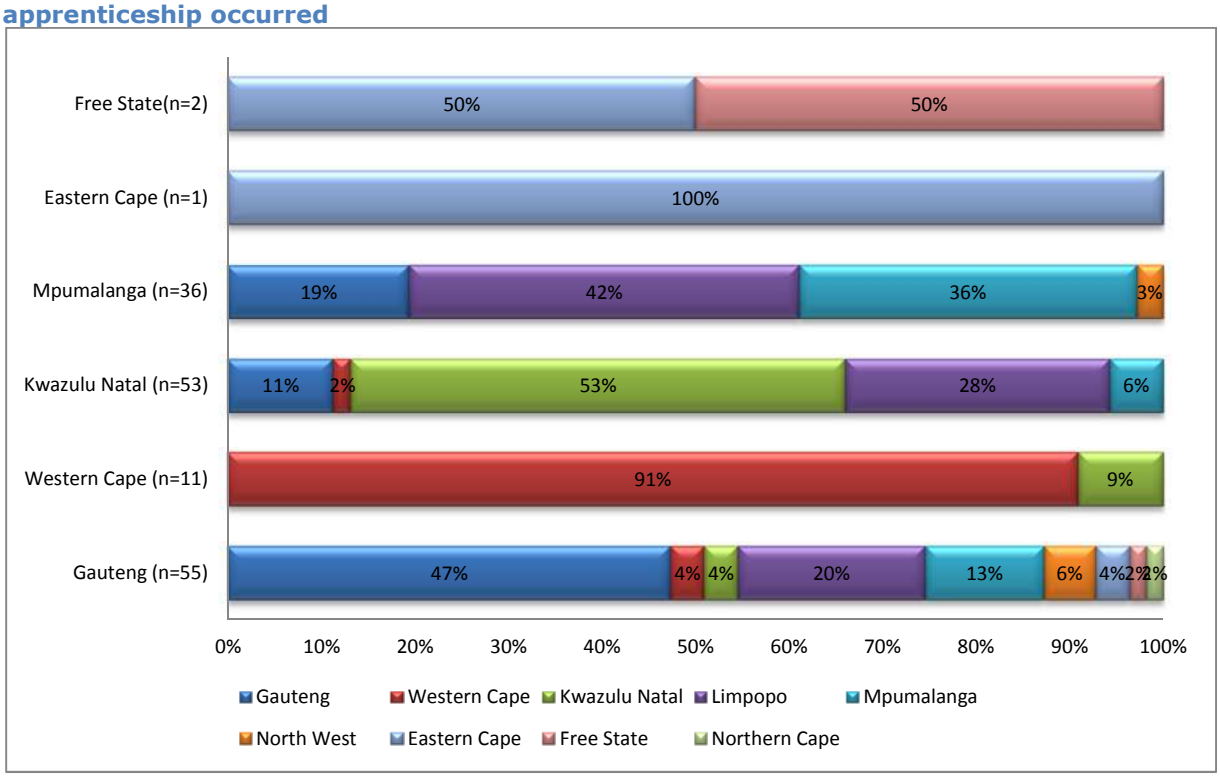
Figure 34: Employers' main reasons for retaining AATP apprentices



Source: UCS Tracer Study Survey (August 2012)

As indicated above 41% of employed artisans interviewed had left their original training company. Researchers asked these artisan respondents where the company they are now employed at is located, to determine the post trade test migration patterns of apprentices not retained by the original training company. 53% of KZN artisan respondents who were no longer with their original training company stayed in KZN and 28% moved to Limpopo. 42% Mpumalanga artisan respondents had moved to Limpopo.

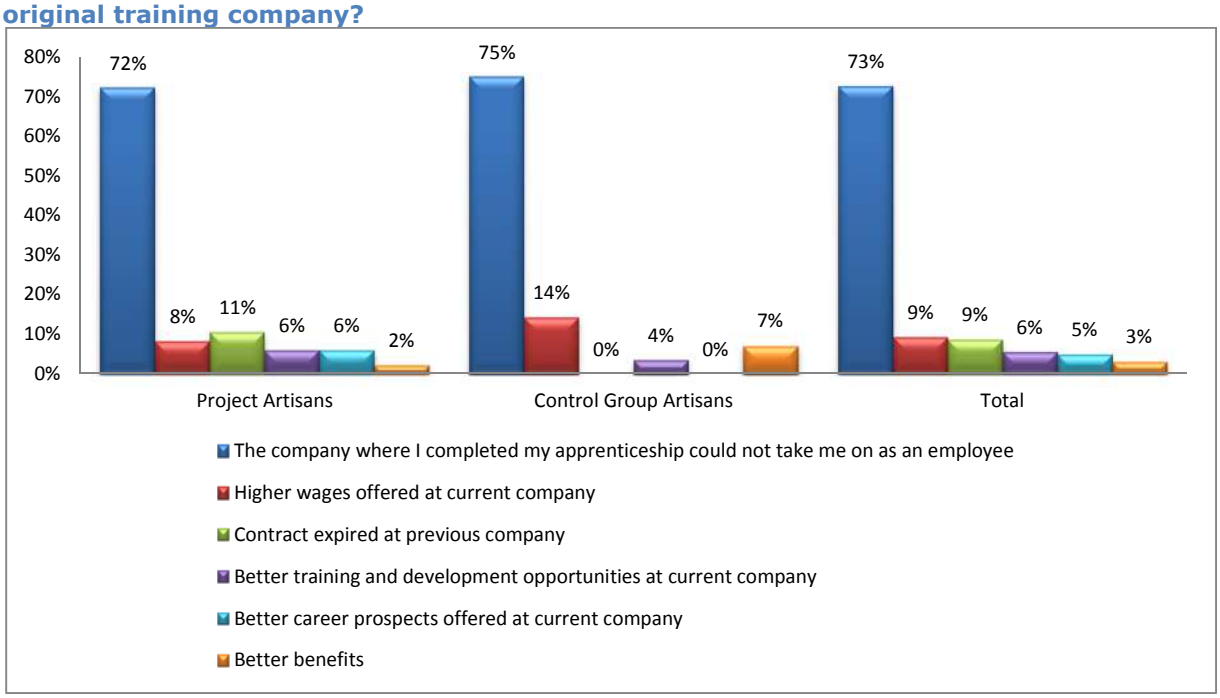
Figure 35: Province where new company is located against province where apprenticeship occurred



Source: UCS Tracer Study Survey (August 2012)

The qualified artisans were also asked *'Which company are they now employed at?'* 13% said Murray & Roberts, 9% Transnet and 3% said KENTZ. To determine the reasons why artisans left their original training company, artisans where asked *'Why did you choose to work for this company instead of remaining at the company where you apprenticed?'* The most common (73% of responses) reason given was *'The company where I completed my apprenticeship cold not take me on as an employee'*.

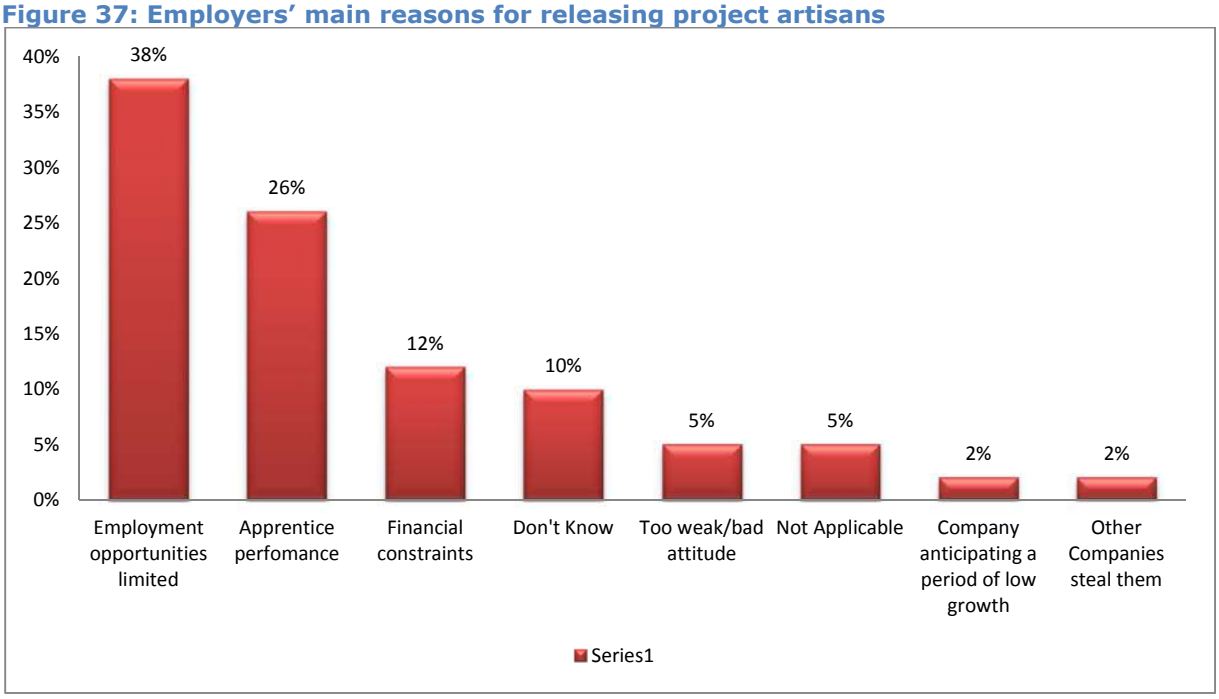
Figure 36: Why did you choose to work for this company instead of remaining at the original training company?



Source: UCS Tracer Study Survey (August 2012)

From the employers' perspective, the most common reasons an artisan was released include artisans' performance and employment capacity.

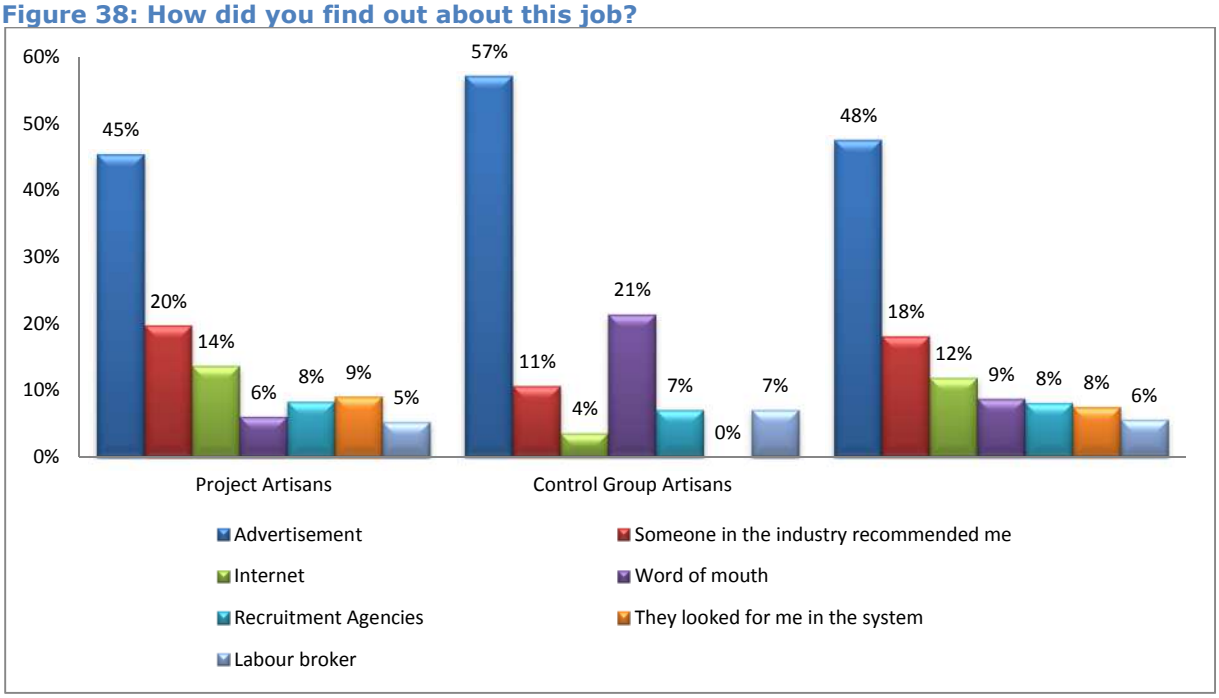
Figure 37: Employers' main reasons for releasing project artisans



Source: UCS Tracer Study Survey (August 2012)

To determine how alternative employment was secured, artisans were asked *'How did you find out about this job?'* and 48% of respondents said they found out from an advertisement.

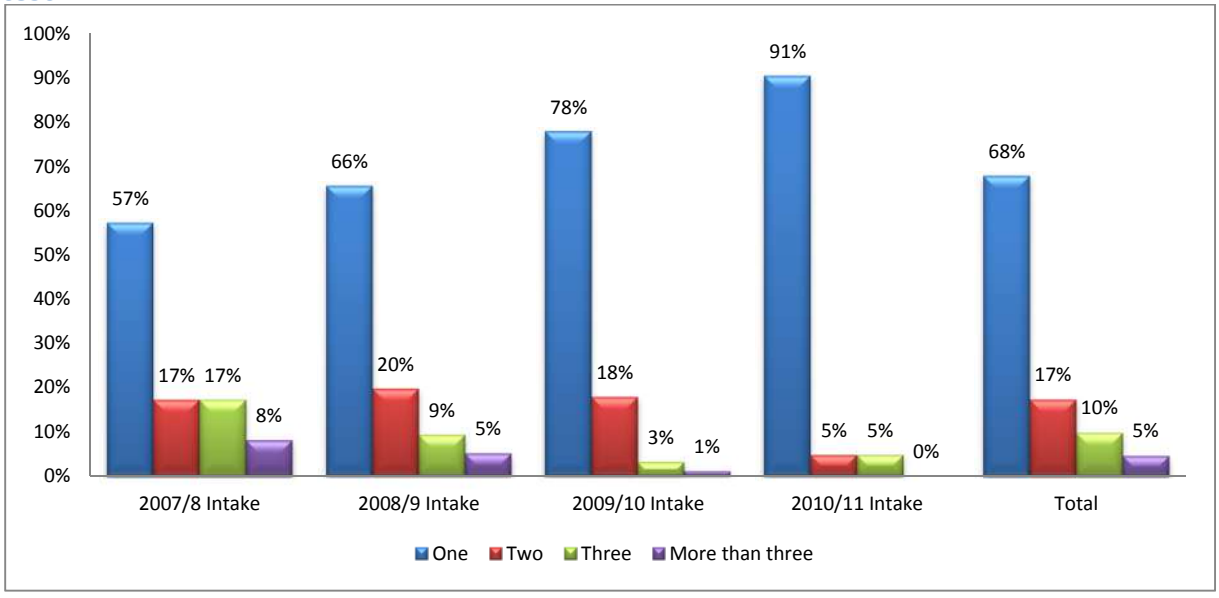
Figure 38: How did you find out about this job?



Source: UCS Tracer Study Survey (August 2012)

The majority (69%) of the artisan respondents interviewed had only worked for one company since passing their final trade test. Only 57% of the artisan respondents from the 2007/8 Intake (Phase 1) had worked for one employer, with 43% having worked for two or more. It can be inferred that with the time lapsed and the experience gained since passing the trade test artisans are more likely to change employers.

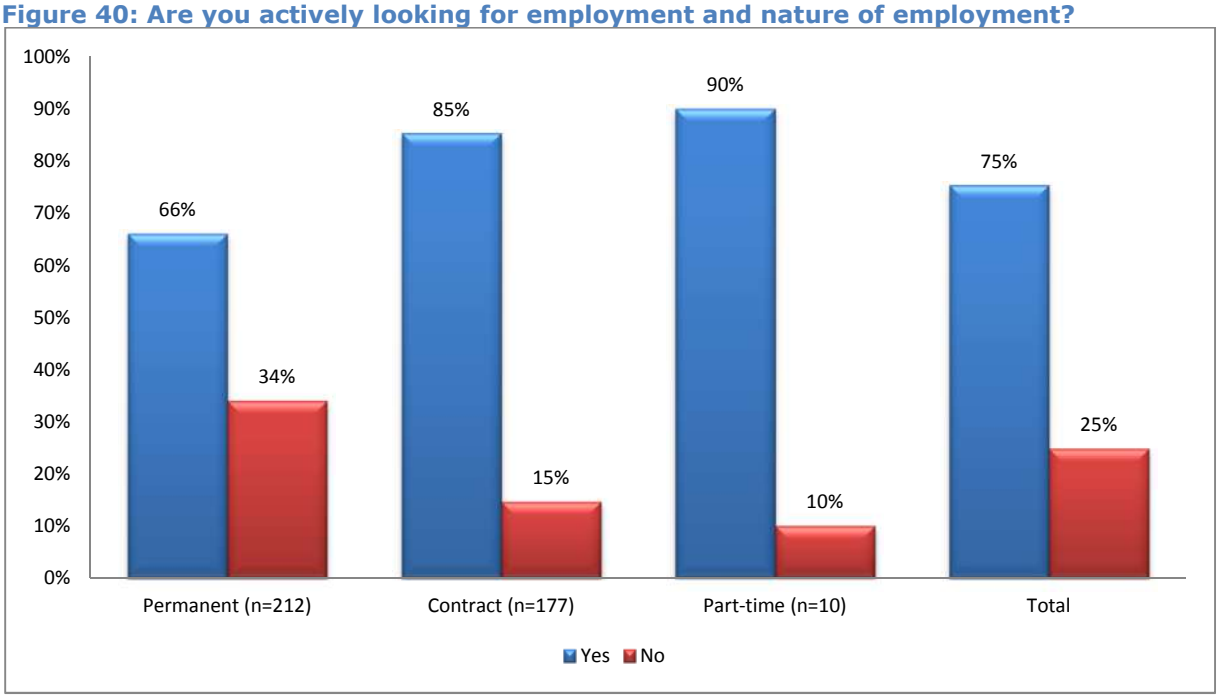
Figure 39: How many companies have you worked for since completing your final trade test?



Source: UCS Tracer Study Survey (August 2012)

As shown below, 75% of the employed artisan respondents indicated they are actively looking for work despite being employed. More (77%) project artisans were looking for employment compared to 68% of control group artisans. 85% of contract workers were actively seeking employment compared to 66% of permanently employed artisans.

Figure 40: Are you actively looking for employment and nature of employment?

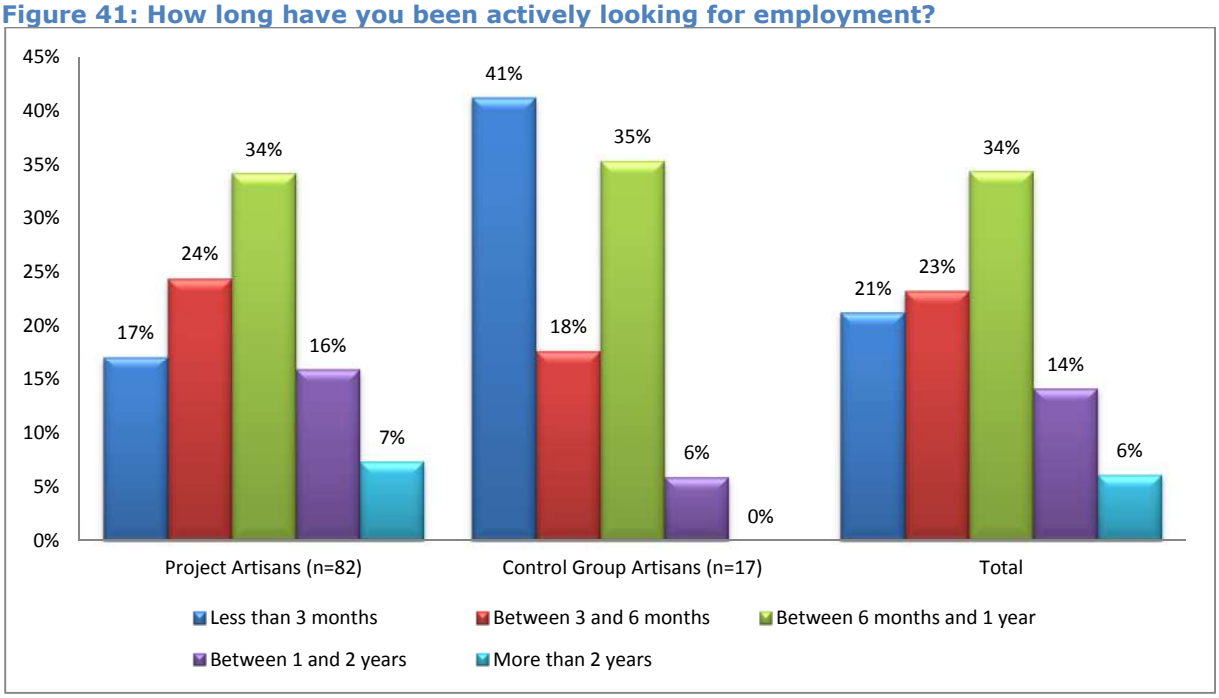


Source: UCS Tracer Study Survey (August 2012)

5.3.4. Unemployment

As stated in the preceding sections, 15.9% of the artisan respondents interviewed are currently not working and have been actively looking for employment for more than three months.

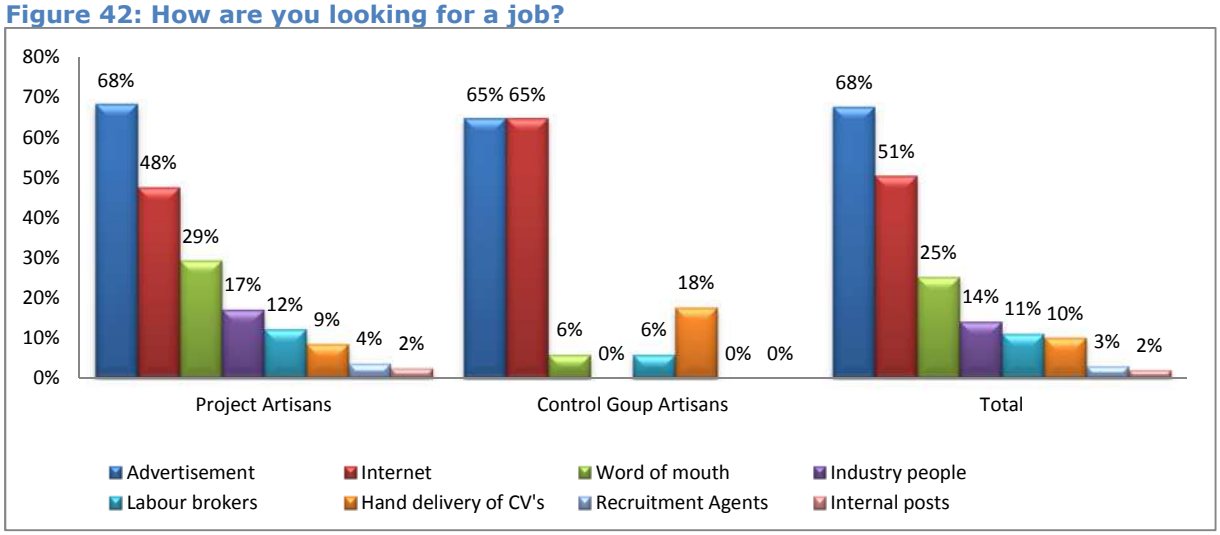
Figure 41: How long have you been actively looking for employment?



Source: UCS Tracer Study Survey (August 2012)

The researchers asked the artisan respondents who are currently not working how they were looking for a job. As observed in the group that left their original training company the most common job search method is responding to advertisements.

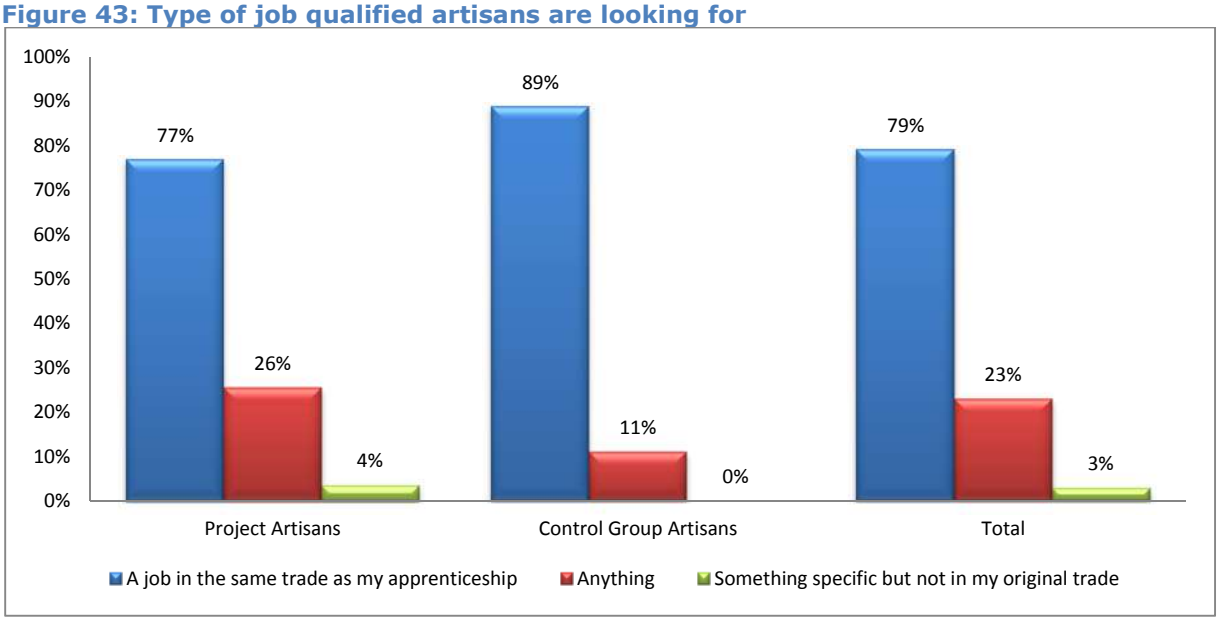
Figure 42: How are you looking for a job?



Source: UCS Tracer Study Survey (August 2012)

Figure 43, below shows that 79% of the artisan respondents who are not working are looking for a job in the same trade as their apprenticeship.

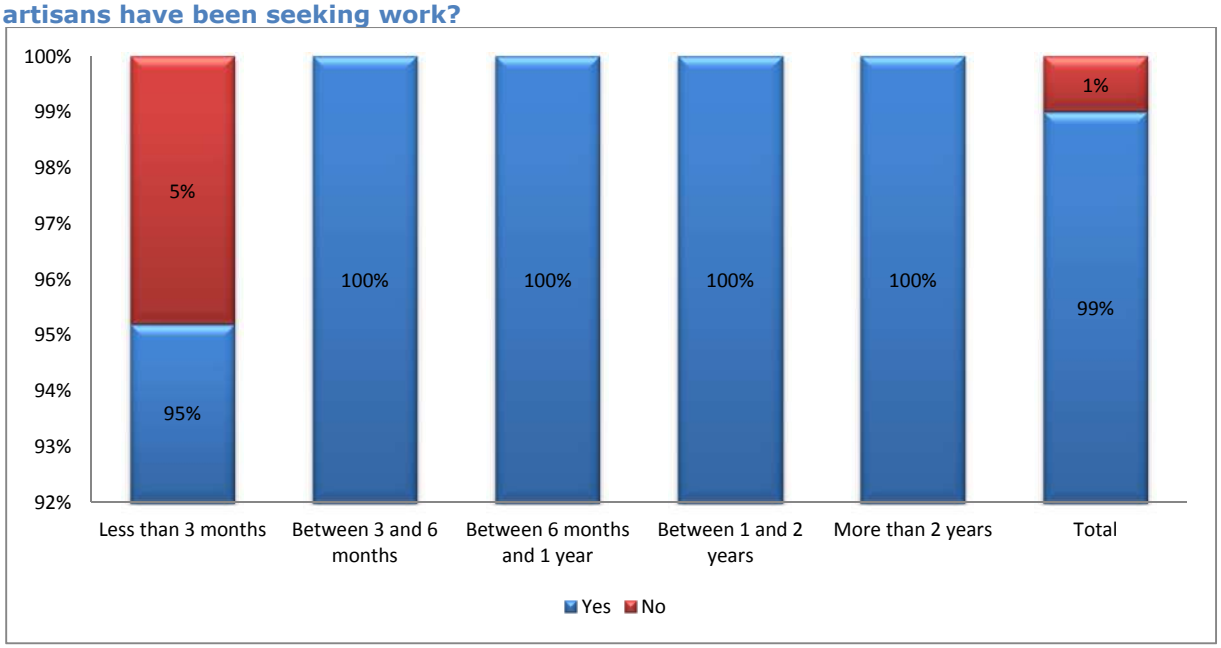
Figure 43: Type of job qualified artisans are looking for



Source: UCS Tracer Study Survey (August 2012)

Despite the length of time artisan respondents have been actively seeking work 99% of them are still interested in pursuing careers as artisans.

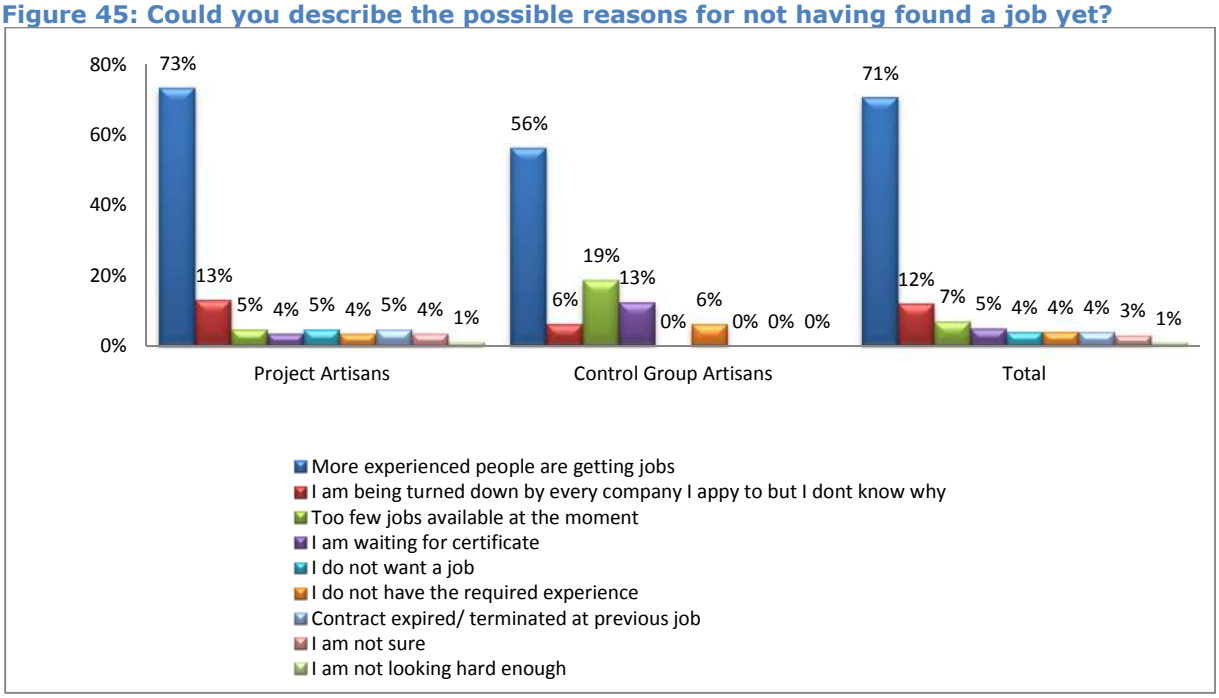
Figure 44: Are you still interested in pursuing a career as an artisan and how long artisans have been seeking work?



Source: UCS Tracer Study Survey (August 2012)

The main reason cited for not having found employment yet is *'More experience people are getting jobs'* with 73% of project artisans citing it and only 53% of control group artisans doing so.

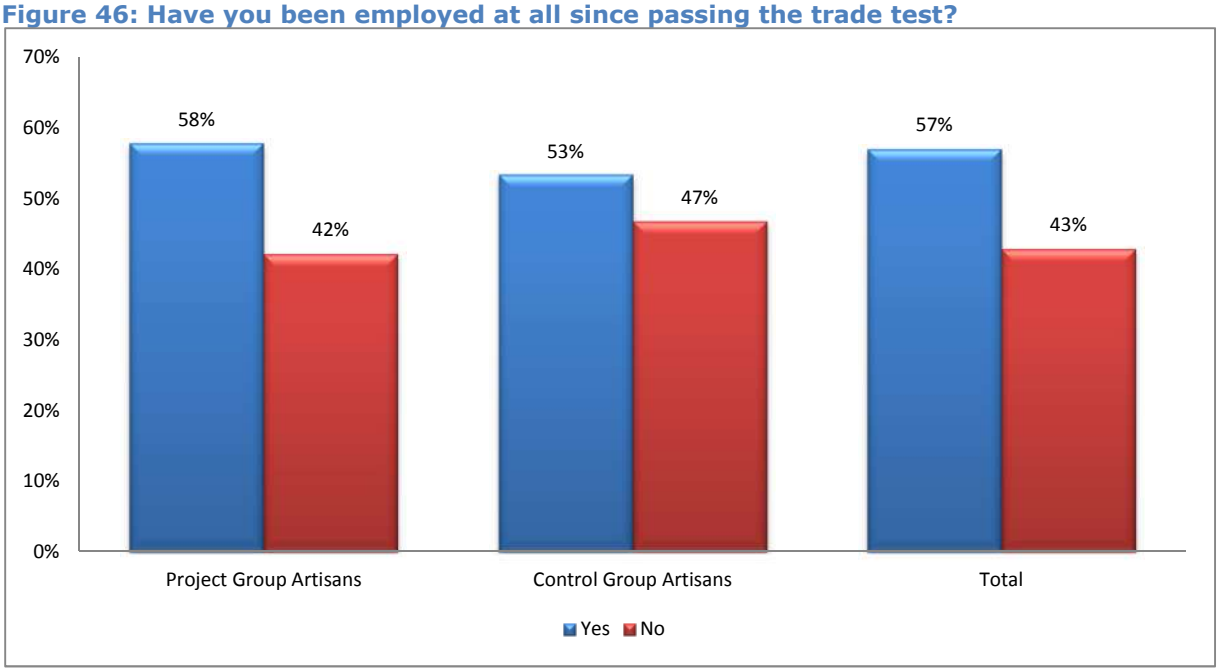
Figure 45: Could you describe the possible reasons for not having found a job yet?



Source: UCS Tracer Study Survey (August 2012)

The majority (57%) of artisan respondents interviewed who are unemployed have worked at some point since passing their trade test and 43% have not. 81% of those that have worked before were employed in the same trade they apprenticed.

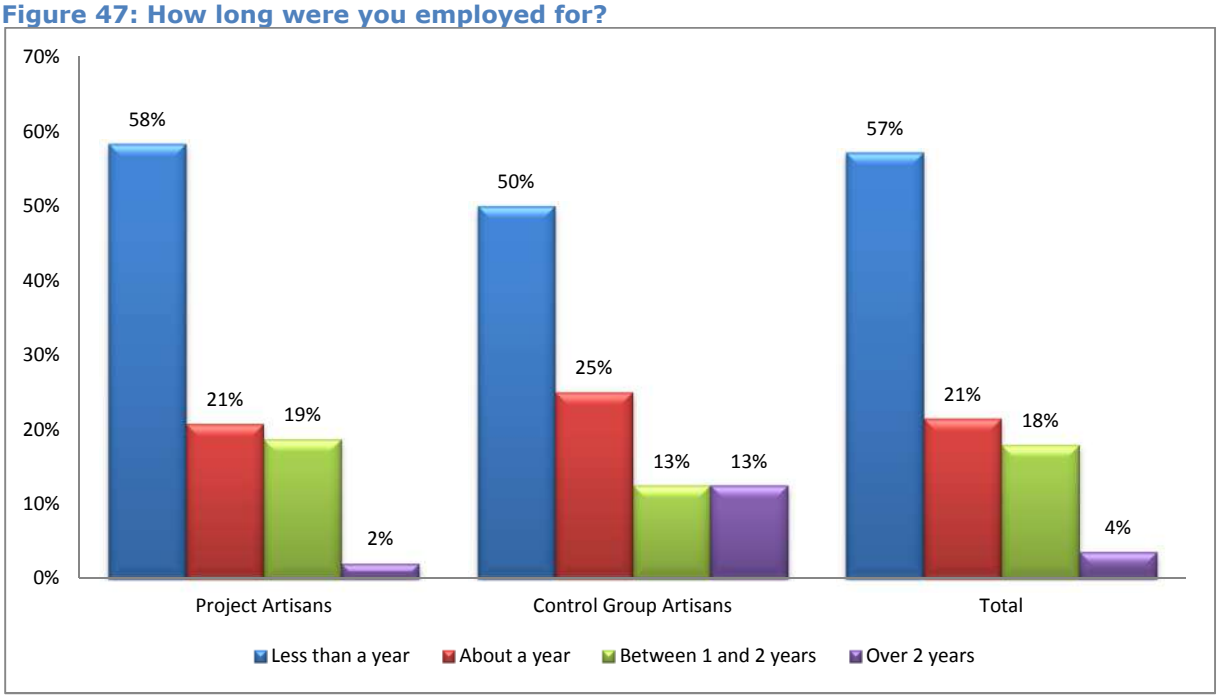
Figure 46: Have you been employed at all since passing the trade test?



Source: UCS Tracer Study Survey (August 2012)

A higher percentage of project artisans (58%) had worked before compared to 53% from the control group artisans. Figure 47 below indicates that 57% of unemployed artisans were employed for less than a year.

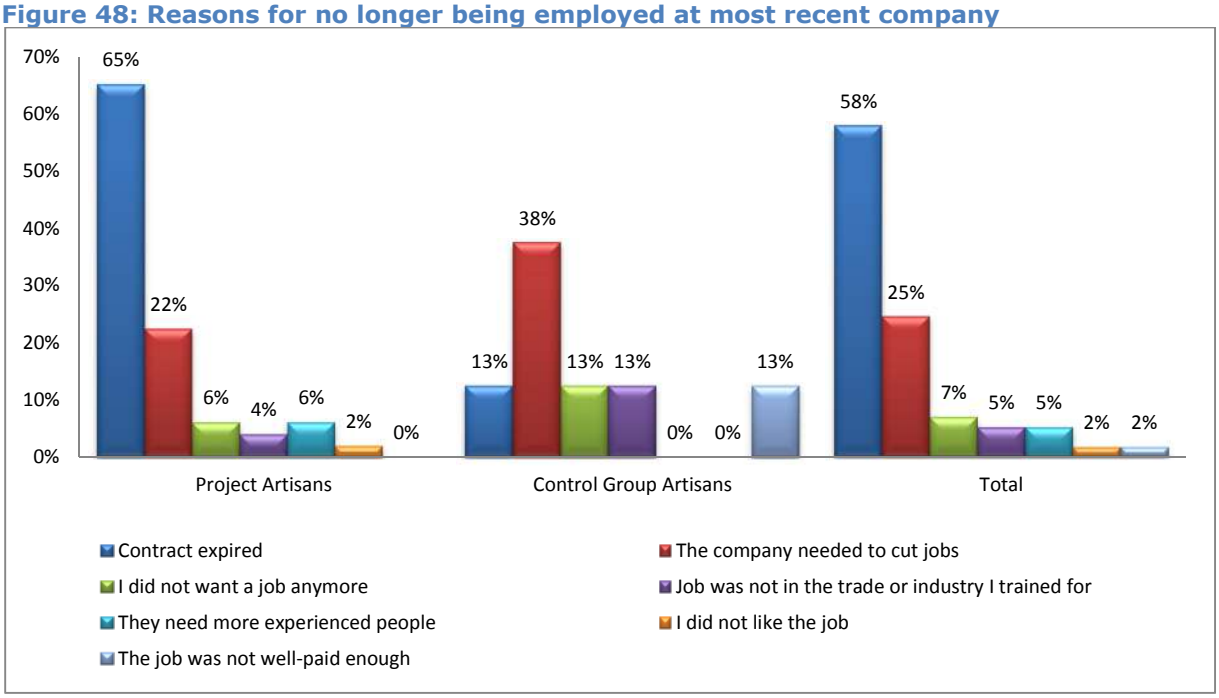
Figure 47: How long were you employed for?



Source: UCS Tracer Study Survey (August 2012)

The main reasons given for no longer being employed varied between the two groups i.e. project artisans and control group artisans. 65% of project artisans stated the reason for no longer being employed as *'contract expired'* whilst the most common response (38%) from control group artisans was *'the company needed to cut jobs'*.

Figure 48: Reasons for no longer being employed at most recent company

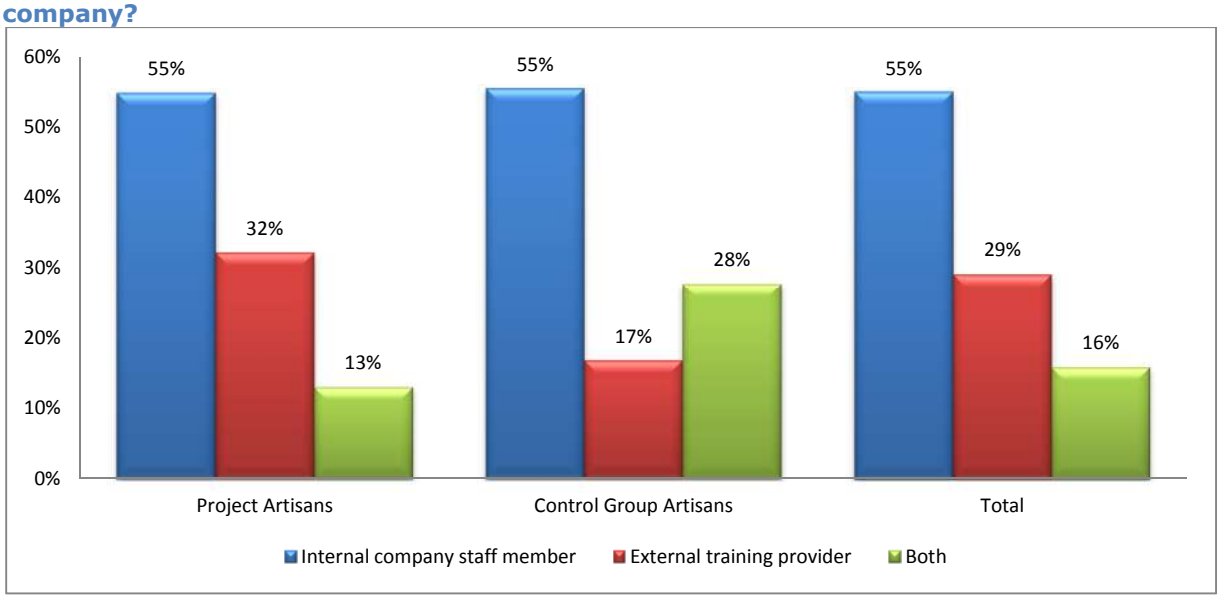


Source: UCS Tracer Study Survey (August 2012)

5.3.5. Quality of Training

The researchers asked the artisan respondents who they were trained by during their apprenticeship programme and 55% stated that they were trained by an internal company staff member.

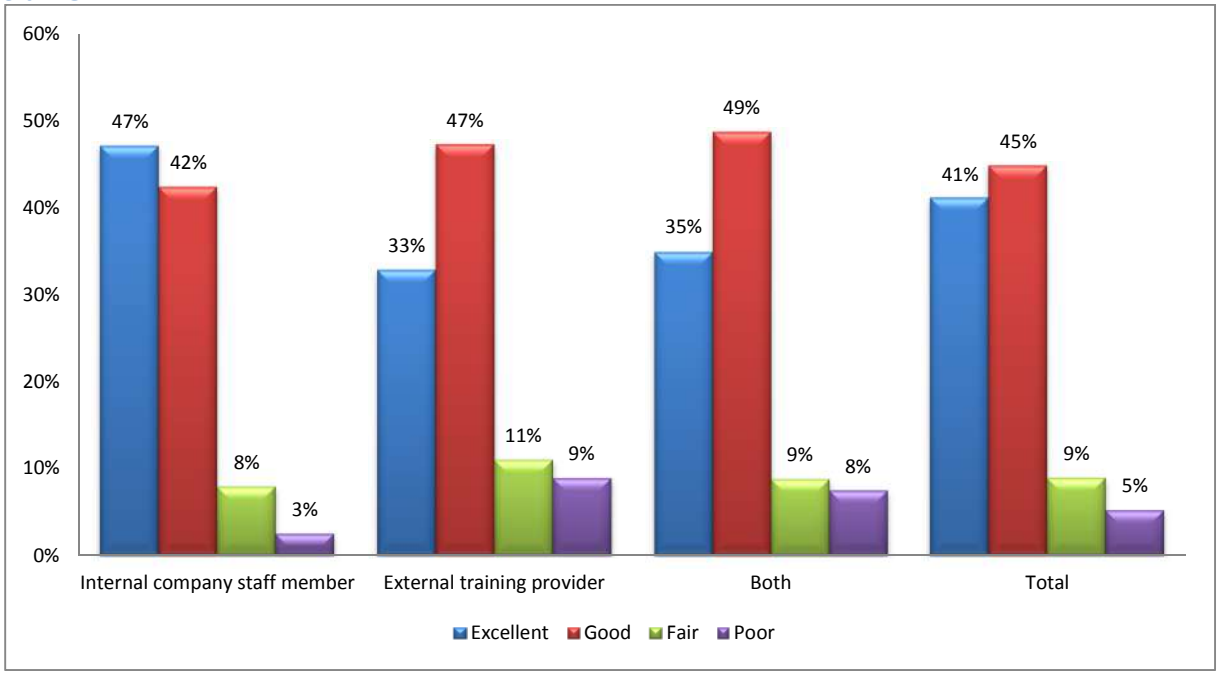
Figure 49: Who were you trained by during your apprenticeship programme at the company?



Source: UCS Tracer Study Survey (August 2012)

Regardless of who conducted the training the majority of artisan respondents rated it excellent (41%) and good (45%).

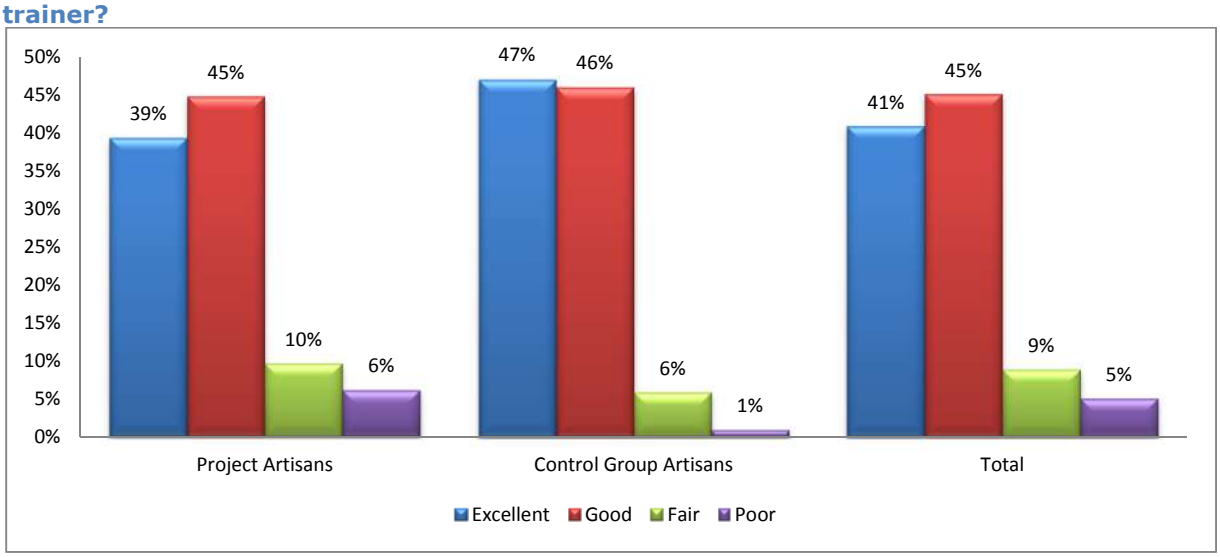
Figure 50: How would you rate the quality of training provided to you by your mentor or trainer?



Source: UCS Tracer Study Survey (August 2012)

There is no marked difference in the quality of training across the apprenticeship platforms as both AATP and Non-AATP artisans gave similar ratings as seen in Figure 51 below.

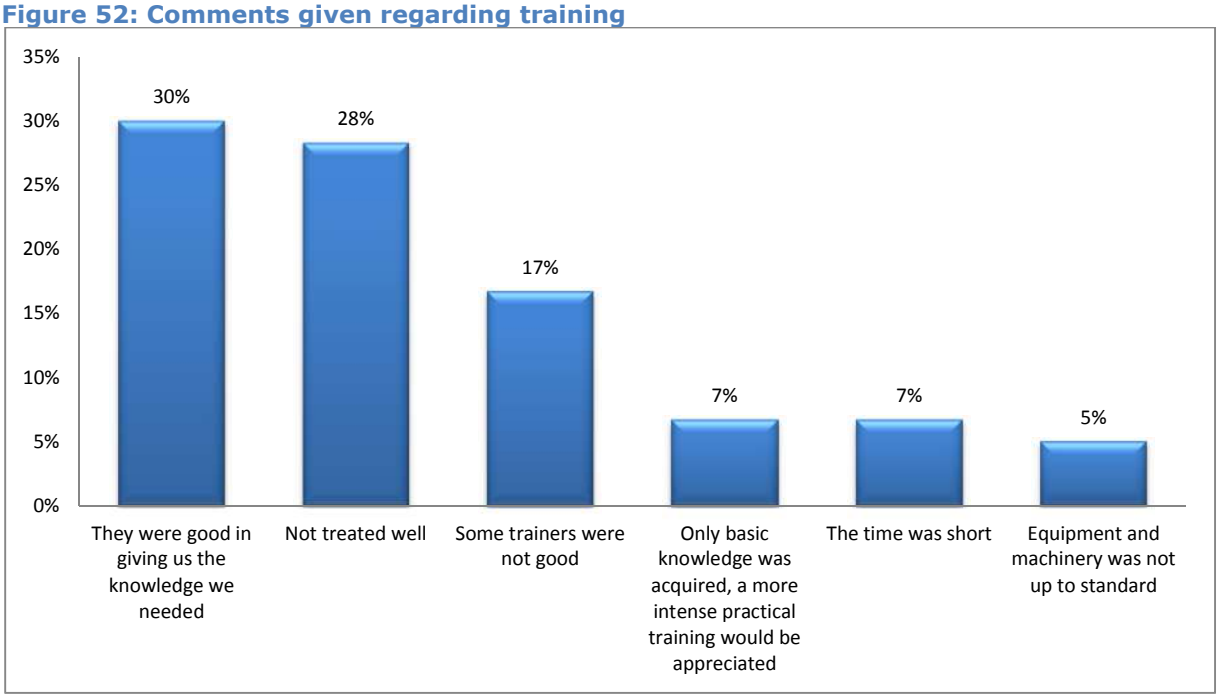
Figure 51: How would you rate the quality of training provided to you by your mentor or trainer?



Source: UCS Tracer Study Survey (August 2012)

The figure below shows the comments given in relation to the training. 30% of the comments given were positive and showed that the training was effective and good.

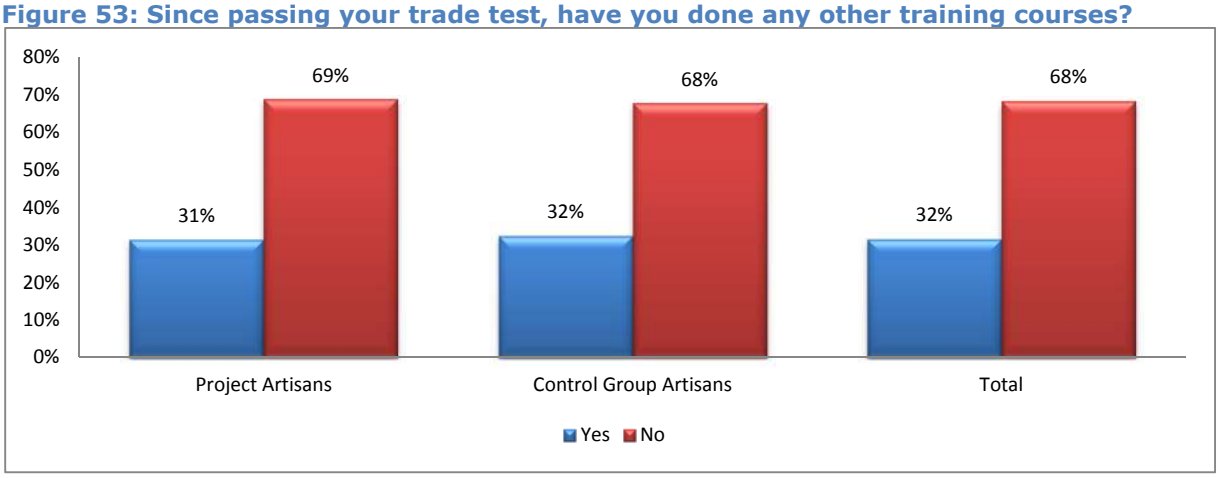
Figure 52: Comments given regarding training



Source: UCS Tracer Study Survey (August 2012)

One of the objectives of the tracer study was to determine whether artisan respondents had done any post trade training courses. The majority (68%) had not and this was the case for both project artisans and control group artisans.

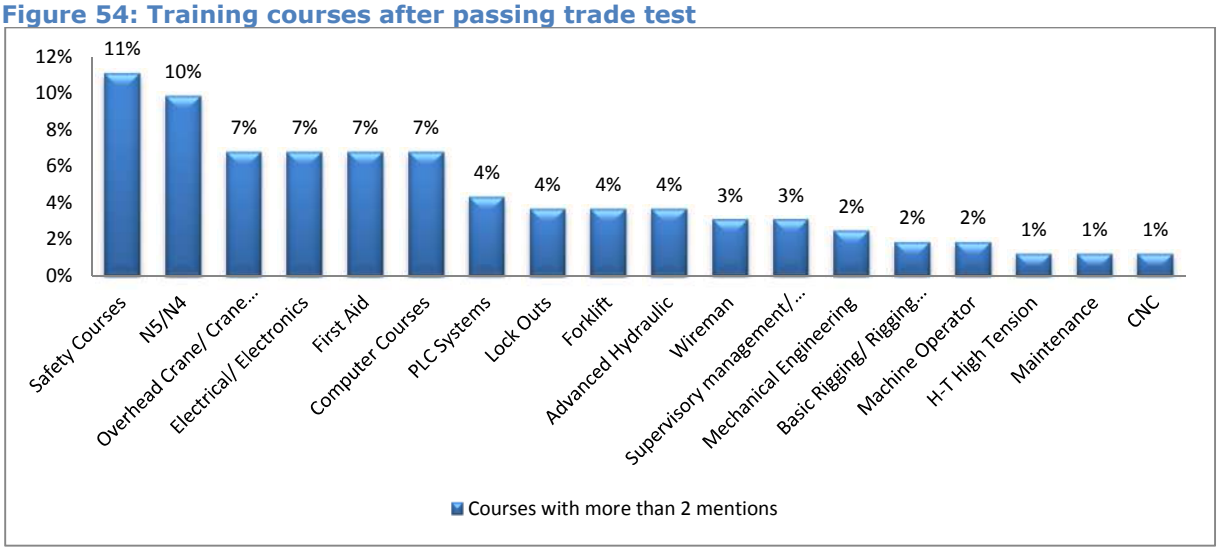
Figure 53: Since passing your trade test, have you done any other training courses?



Source: UCS Tracer Study Survey (August 2012)

For those that have done additional training courses most were related to their trades.

Figure 54: Training courses after passing trade test



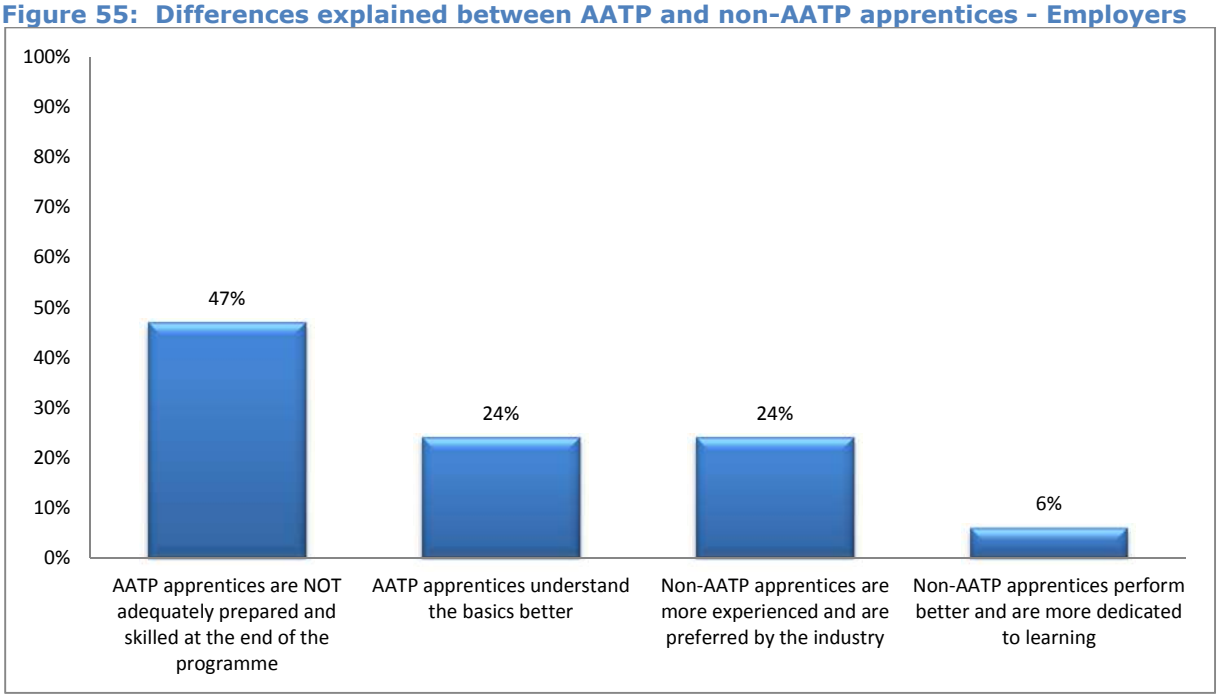
Source: UCS Tracer Study Survey (August 2012)

5.3.6. Review of the Apprenticeship Programme by respondents

Employers were asked whether or not they had noticed any differences between the capabilities of the AATP and non-AATP apprentices. 52% of employers stated that they did notice differences between the two apprenticeships groups whilst 48% stated they did not notice any difference. Twenty-three employers answered this question. Note that the shortfall in total number of responses is attributed to certain respondents feeling that they were not close enough to the apprentices to know whether any differences existed, while the remaining companies that did not respond to this question do not take on non-AATP apprentices.

Those who did not notice any differences between the two groups were also quick to point out that it is *post* trade test experience that distinguishes the calibre of apprentices, as it is only then that they are putting their knowledge and training to use on their own.

Figure 55: Differences explained between AATP and non-AATP apprentices - Employers

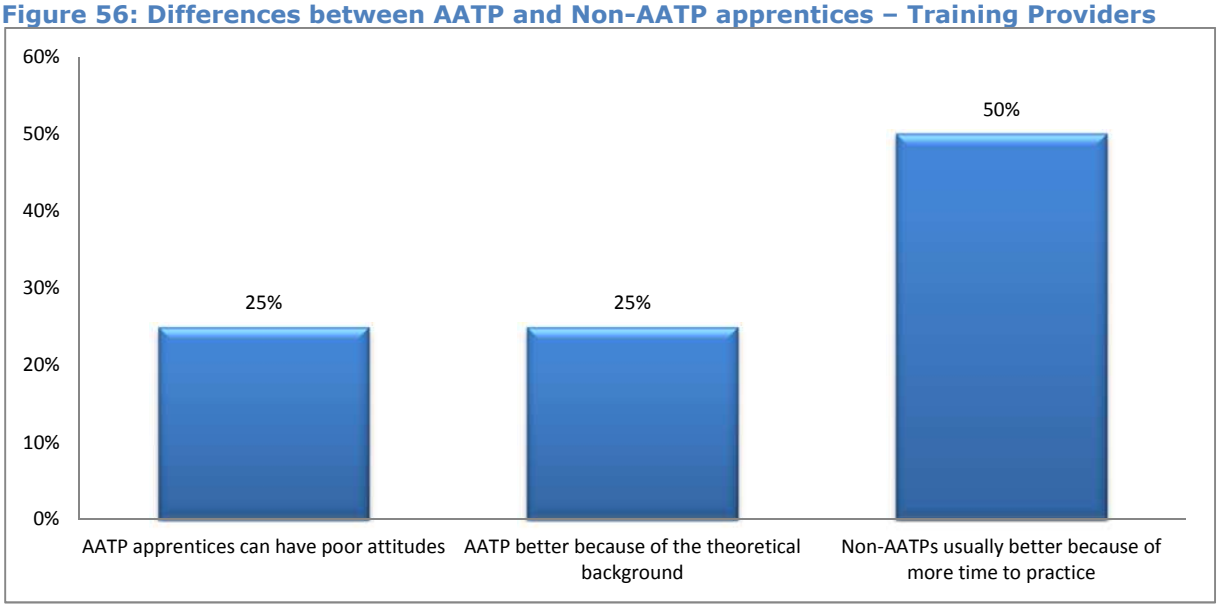


Source: UCS Tracer Study Survey (August 2012)

The eight training providers who train both AATP and non-AATP apprentices were asked whether or not they had noticed any differences between the capabilities of the two groups.Half (four) of the training providers believed that they had noticed differences.

The differences in capabilities observed by the four training providers are provided in Figure 56 below.

Figure 56: Differences between AATP and Non-AATP apprentices – Training Providers



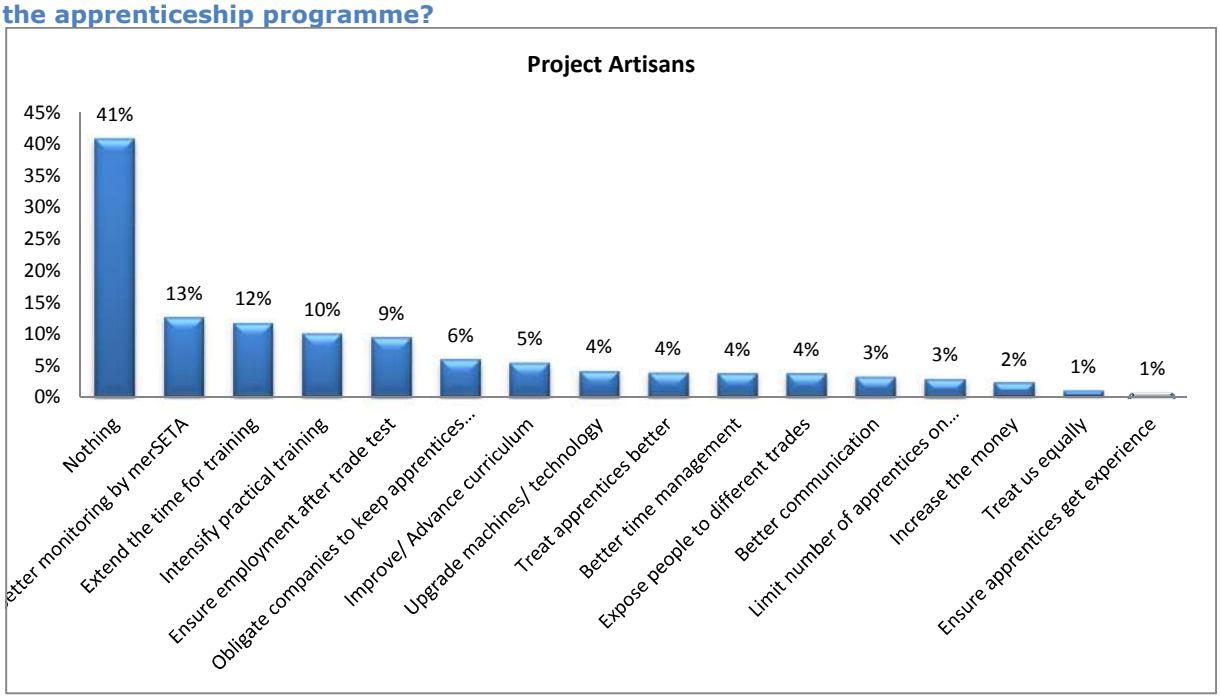
Source: UCS Tracer Study Survey (August 2012)

The above differences were broken down by training provider type. Both internal training providers that noticed differences believe that non-AATP apprentices are more skilled at the end of the programme because of having had more time to practice and gain experience.

The training provider who noticed that AATP apprentices can have poor attitudes stated that those who do not get accepted into the trades of their first choice (and therefore accept a second or third choice) are sometimes seen to not have their hearts in the programme, which negatively affects their attitudes.

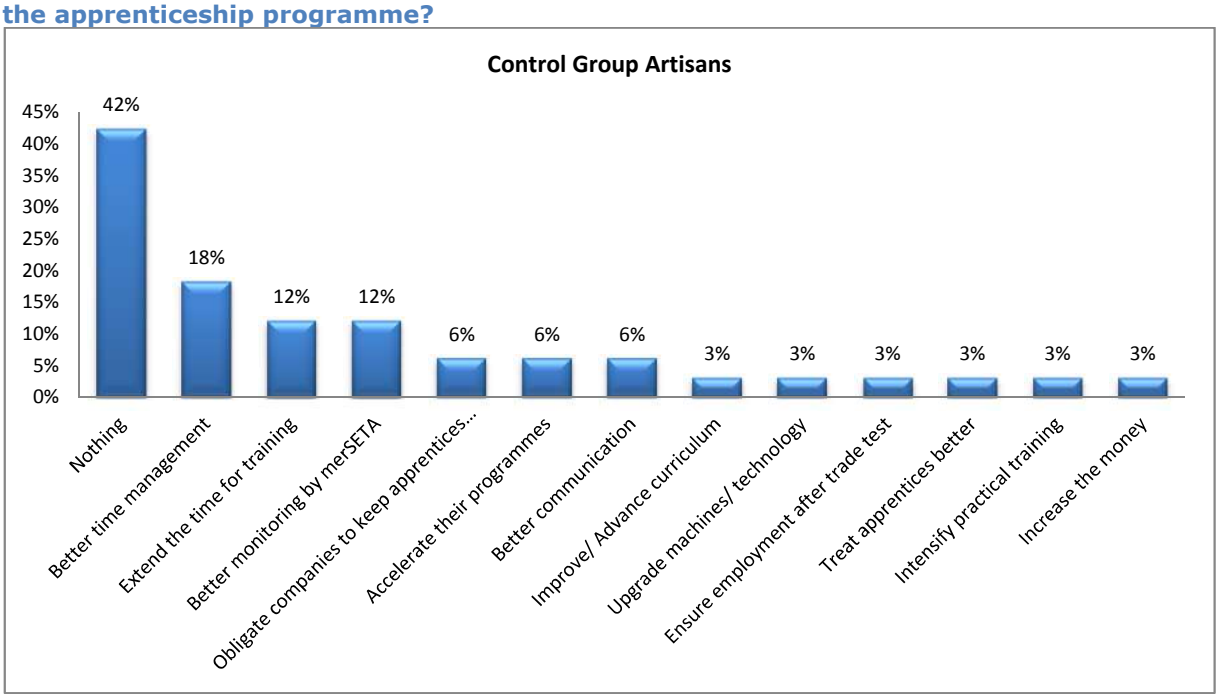
Artisan respondents from both platforms were asked *'Is there anything you think should be done to improve the effectiveness of the apprenticeship programme'*. Project artisans suggested better monitoring by merSETA and extended time for training. Surprisingly 12% of artisans from the control group also suggested that time for training be extended. The main motivation for extending time is to meet the need for getting adequate experience.

Figure 57: Is there anything you think should be done to improve the effectiveness of the apprenticeship programme?



Source: UCS Tracer Study Survey (August 2012)

Figure 58: Is there anything you think should be done to improve the effectiveness of the apprenticeship programme?



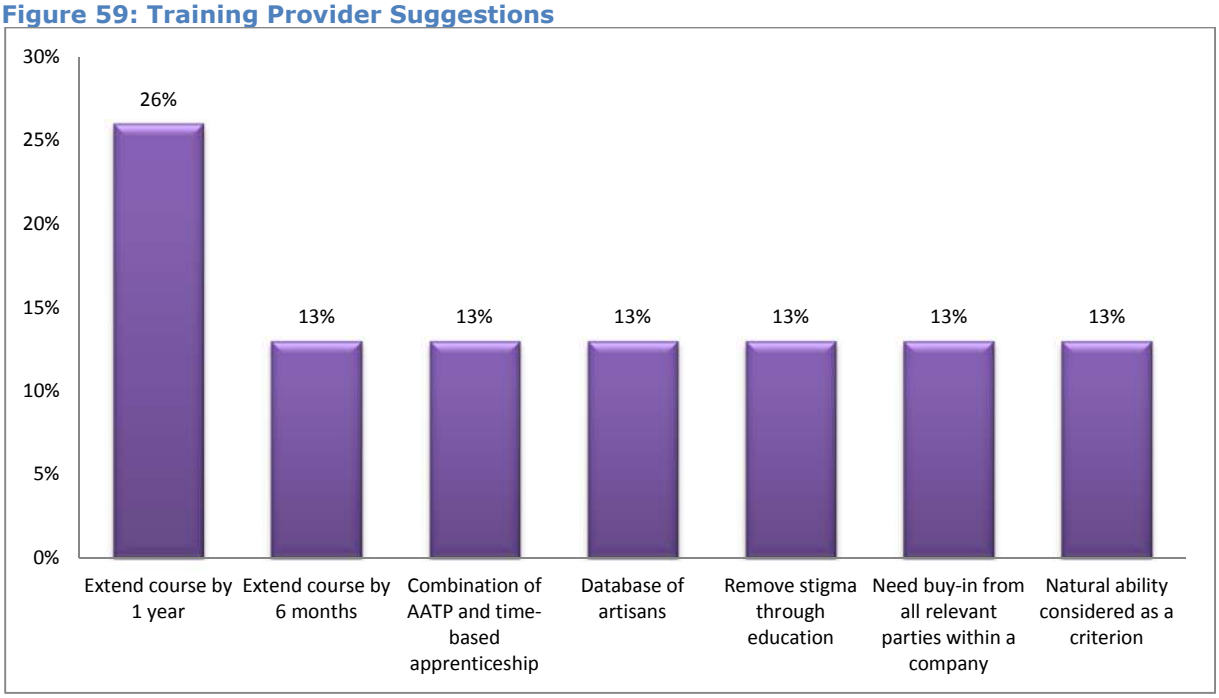
Source: UCS Tracer Study Survey (August 2012)

Some direct quotes from artisan respondents:

- *Monitor the programme for apprentices to be able to get satisfying help from the training officer*– Artisan, GP
- *They used us a cheap labour*– Artisan, GP
- *Increase the duration of the courses and have means to assist students to get jobs after completion* – Artisan, MP
- *People should be given more exposure because when we apply to other companies we find that they are doing something different to what we were taught*– Artisan, MP

Training Providers were asked if they had any suggestions for merSETA where future AATP programmes were concerned. Figure 59 below shows the results. Eight suggestions were received.

Figure 59: Training Provider Suggestions



Source: UCS Tracer Study Survey (August 2012)

Some of the direct quotes from the Training Provider include:

- *"Extend course by 6 months: 2 months at training centre and 4 months at company for on-the-job experience."* – Training Provider, KZN
- *"Extend course by 1 year for on-the-job experience."* – Training Provider, GP
- *"A combination of the AATP and a time-based apprenticeship would be ideal as it would be guided by milestones but the apprentices would also constantly be reinforcing what they're learning."*– Training Provider, KZN
- *"merSETA should develop a database of artisans and promote them within their networks."*– Training Provider, KZN
- *"merSETA needs to proactively educate the industry to remove the negative stigma."*– Training Provider, GP
- *"merSETA needs to educate and get buy-in from all relevant parties within a company, especially the trainers, not just CEO, so that the training provided to the apprentices is not only of a high standard, but also benefits the company as well."*– Training Provider, WC
- *"There could be other criteria besides educational level to assess potential, for example natural ability."*– Training Provider, GP

Employers were asked if they had any suggestions for merSETA where future AATP programmes were concerned. Twelve suggestions were received.

Six of the 12 suggestions were with regards to the duration of the programme, with five expressly stating that the duration should be extended by at least one year, so that it could be seen as both an "accelerated" course but also one that could still prepare the apprentices adequately. The respondents who believe that there is a negative stigma in the industry were among those who recommended increasing the duration of the programme, to counter this stigma.

Owing to the accelerated nature of the programme and the resulting need for structure and discipline in order to meet the milestones, one of the respondents suggested that the recruitment process becomes tighter to ensure that only mature and serious-minded candidates are considered. In a similar vein, another respondent believes that other criteria, such as proven natural ability, should be considered for admission, rather than just the educational level attained.

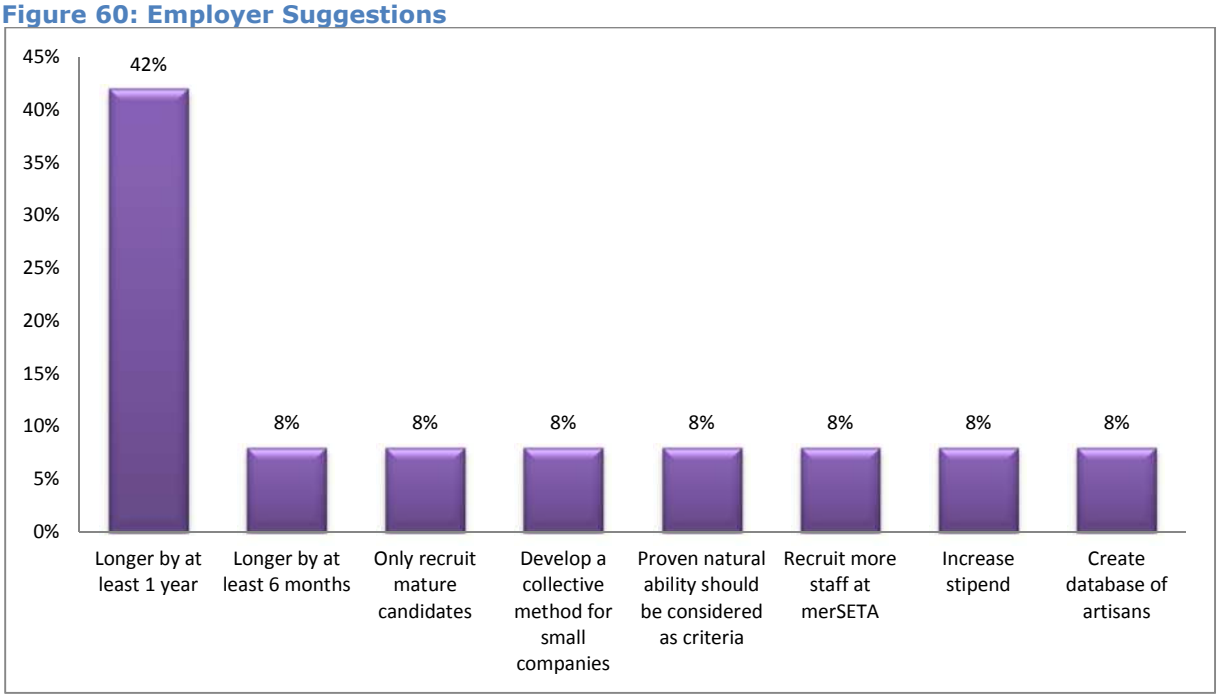
One of the respondents was from a relatively small company and suggested that a collective approach be developed for small companies in the same geographic areas as they typically do not have the manpower to both manage the programme's requirements and provide the kind of training which the apprentices need.

One of the respondents stated that the AATP apprentices are neither experienced enough nor confident at the end. He believes that they can perform all the standard work but struggle when a task requires out-of-the-box thinking, which comes with more experience.

Another respondent suggested that the stipend should be increased for the apprentices as many are constrained financially, and it would be unfortunate to see drop-outs because basic expenses such as travel cannot be covered. He believes that this is especially important during the first phase at college.

One of the respondents suggested that a database be created so that companies looking for good, qualified artisans have a central place to do so. Some of the apprentices (the majority being unemployed) also suggested that this be done.

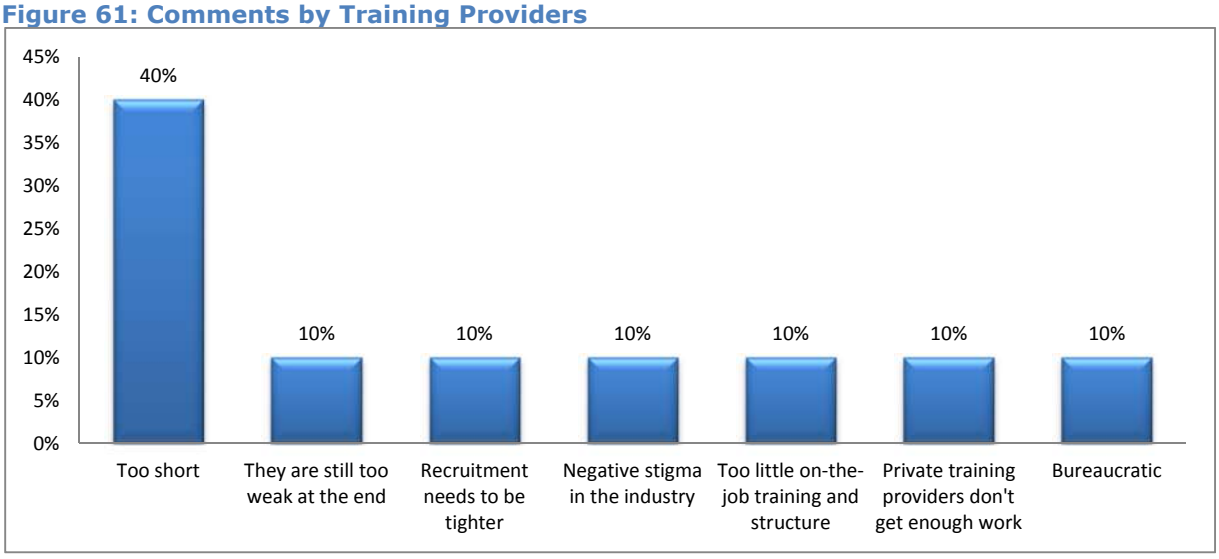
Figure 60: Employer Suggestions



Source: UCS Tracer Study Survey (August 2012)

All 10 training providers were asked whether or not they had any comments on the AATP programme which they would like relayed to merSETA. Ten negative comments were received by the training providers.

Figure 61: Comments by Training Providers



Source: UCS Tracer Study Survey (August 2012).

Two of the comments received from the training providers were positive and described the AATP Programme as a positive initiative and a well run and efficient programme.

Some of the direct quotes for the training providers include:

- *"The AATP is far too short."* – Training Provider, GP
- *"We spent a lot of extra money training the apprentices after the programme, as they are still too weak at the end."* – Training Provider, KZN
- *"Recruitment needs to be tighter sometimes, as the AATP calls for discipline and commitment. merSETA needs to ensure that the candidates' maturity levels are assessed as part of the criteria for acceptance."*– Training Provider, KZN
- *"There is a negative stigma in the industry because of the programme's accelerated nature."*– Training Provider, WC
- *"There is too little on-the-job training and structure. And structure is crucial for an accelerated programme to be effective."*– Training Provider, GP
- *"The private training providers don't get enough work - the budget seems to focus on the FET colleges."*– Training Provider
- *"Some processes at merSETA seem to be somewhat bureaucratic."*– Training Provider

All 29 employers were asked whether or not they had any comments on the AATP programme which they would like relayed to merSETA. Six of the comments received were positive.

Some of the direct quotes include:

- *"I enjoy working with the team, payment is on time, and everything is well-run. They know what's going on."*–Employer, GP
- *"I'm happy with the AATP so far, and will expand to other trades eventually but want to first see how the electrical apprentices fare."*– Employer, GP
- *"The AATP team is doing a great job. I like their open communication."*– Employer, MP
- *"The concept of the AATP is good, but it can only work if formal structure is in place to meet the milestones and if there's discipline on both sides. These need to be non-negotiable and ingrained."*– Employer, LP

Seven negative comments were received by the employers. Three of the negative comments were regarding the fact that non-AATP apprentices are more skilled at the end of their apprenticeships owing to having had more time to practice and gain experience than the AATP apprentices.

Related to the above comments, two of the respondents believe that the AATP has a negative stigma in the industry as a result of its short nature, as it is seen as a "crash course" and therefore cannot possibly produce artisans of a high calibre. One of the respondents believes, however, that the stigma is an unfair one, owing to the key element of any apprenticeship being the experience you gain afterwards. The other respondent believes that the stigma is indeed fair, because it is highly unlikely

that one can be adequately prepared as an artisan in such a short duration. Another respondent stated that the AATP "set apprentices up for failure" because too much would try to be crammed in too short a time, leaving them with little confidence and not enough experience.

Another employer stated that the short duration of the course put too much pressure on the mentors, so the company will not be taking on AATP apprentices again, unless the programme is extended.

One of the employers mentioned that the registration and application process is cumbersome and slow, seemingly because everything has to go through the CEO.

6. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

The study aimed to take stock of the activities, employment status and expectations of apprentices who have qualified on the AATP management platform. The project aimed to provide as much information as possible with regards the activities of apprentices after passing their trade test. A total of 510 artisans were interviewed form both the AATP (408) and Non-AATP (102) platforms in July and August. Although the main focus of the study was on the qualified artisans, 30 employers and 10 training providers were also interviewed.

It can be concluded from the findings that qualifications held prior to commencing AATP have no bearing on the length of time it takes to successfully pass the trade test. Findings showed that the likelihood (73%) of an N3 and N6 passing the trade test in one sitting is the same. The most common reasons for not passing the trade test the first time are similar for both the project artisans and control group artisans. Both groups of artisans felt they were not adequately prepared for the trade test and that they made minor mistakes during the trade test.

Of the total 510 artisans interviewed, 406 (80%) are currently working 104 (20%) are not working. From the 408 project artisans interviewed, 323 (79%) are working and 85 (21%) are not working. The results from the control group were similar, 83(81%) are working and 19 (19%) are not. Discounting for those that are not actively seeking and have been looking for less than three months the unemployment figure amongst the respondents is 15.9% which is lower than South Africa's national unemployment figure of 24.9%. It can be concluded that both apprenticeship programmes are an effective way of securing employment.

54% of the artisan respondents interviewed were permanently employed, 44% were on contract employment and 3% had part-time employment. Artisan respondents who have been qualified for longer are more likely to be permanently employed and a greater portion (70%) of recently qualified artisans (2011) are on contract employment. Both the AATP and Non-AATP programmes are supplying the private sector with artisans as 93% of employed apprentices are working for privately-owned companies.

The retention rate was relatively high, with 59% of employed artisans still working at their original training company. The retention rate of control group artisans was higher with 65% of the respondents still working at the same company, whilst for project artisans 58% were working at the same company they completed their apprenticeship. The majority of respondents had therefore only worked for one company. Respondents from the initial intake 2007/8 were more likely to have left

their original training company, showing that with more experience artisans are more likely to change employers.

Apprentices form both platforms stayed with the company because they had been offered a job and the career opportunities available to them. Majority of employers based their retention/release decision on the apprentice's performance and the employment capacity of the company.

41% of employed artisans had left their original employer. Post trade migration patterns indicate that most mobility was within the original apprenticeship province but a significant portion left the province altogether. For instance 42% of Mpumalanga artisans who changed employers are now based in Limpopo and 28% of KZN artisans are also in Limpopo. The most common reason for leaving original training company was the original company's inability to take on the apprentices as employees. Artisan respondents secured alternative employed mainly by responding to job advertisements (48%), recommendations by someone in the industry (18%) and internet applications (12%).

Of the 104 artisans (20%) not working, 80 (15.69%) had been actively seeking employment for more than three months. The majority (57%) of these had worked for some time since passing their trade test. The major reason artisan respondents have not secured employed is because more experienced people are getting jobs (71%).

The majority of artisan respondents (68%) had not done any post trade training courses and only 32% had done some. This finding was consistent in both project artisans and control group artisans which might indicate that both programmes adequately the address the immediate skill needs of the artisans.

Table 4: Summary Table

Description	Project Artisans	Control Group	Total Sample
PASS RATE			
Passing the first time	71%	66%	70%
Qualifications prior apprenticeship and passing the first time			
N2	40%	33%	39%
N3	73%	71%	72%
N4	*70%*	*50%*	*68%*
N5	72%	73%	72%
N6	73%	67%	73%
Technical / Matric	71%	71%	70%
Some university	100%	-	100%
NCV L 4	100%	-	100%

Description	Project Artisans	Control Group	Total Sample
EMPLOYMENT			
Employed	79%	81%	80%
Retention rates (same employer)	58%	65%	59%
MIGRATION			
Gauteng	57%	38%	53%
Western Cape	10%	0%	9%
Kwazulu-Natal	46%	57%	47%
Mpumalanga	63%	50%	64%
Eastern Cape	0%	0%	0%
Limpopo	0%	0%	0%
Free State	-	50%	50%
UNEMPLOYMENT			
Not working	21%	19%	20%

6.2. Recommendations

Based on the findings, this research recommends the following:

1. To increase the employability of its future apprentice, merSETA can:
    a. Consider making it obligatory for companies to retain apprentices for an extra year after the trade test in order to provide them with valuable on-the-job experience as artisans, at market rates for entry-level artisans. It will also incentivise companies to ensure that the training provided to AATP apprentices is of a high quality.
    b. Consider extending the implementation of this apprenticeship by an extra six months for practical work-place experience, all of which is workshop time, as some employers are sceptical about apprentices being ready for on-the-job experience without having had enough time to practice in the workshop beforehand.
2. For those artisans who are currently unemployed, it is recommended that merSETA takes a more active role in facilitating their employment. merSETA can consider launching an 'Unemployed Artisan Follow-Up Programme' which is focused on placing the artisans into productive employment. Some of the activities under this proposed programme could be:
    a. Registering the unemployed artisans on the Department of Labour's employment services database.
    b. Prepare the artisans for employment under the National Infrastructure Development Programme.
    c. Give these artisans preferences in other merSETA training, employment or business development programmes such as the voucher scheme.

3. merSETA could consider creating a database of their artisans so that companies who need good, qualified artisans can search for them centrally.
4. merSETA can also consider reducing the uptake of apprentices in the trades which are currently experiencing high unemployment like welders, electricians and boilermakers. Trades with lower unemployment levels should be prioritised, such as rigger, fitter and millwright. Furthermore, it will be important to match demand of artisans (through WSP) and willingness to training by companies to future recruitment.
5. Establish a network of companies (over and above those taking on apprentices) seeking to employ qualified artisans. This will provide merSETA with an indication of how large (or small) the demand is for artisans. This will also help merSETA determine the number of grants to be issued to companies over and above the internal needs. Qualified artisans could then also be promoted within this network.
6. Since the AATP started in 2007, this was the very first tracer study. Though this is commendable, it is recommended that tracer studies be done annually. This will help merSETA not only have an updated database of their artisans but have consistent feedback on the efficiency and effectiveness of the programme. TORs for future tracer studies should include:
    a. To research qualified artisans from the most recent phase provided that a year has lapsed since completion of the trade test.
    b. Should have a mechanism with which to log problems raised by respondents so that merSETA can follow-up and resolve them.
7. merSETA can also use tracer studies results for future grant allocation. More grant money could be allocated to companies who are willing retain trained apprentices. Through the tracer study, merSETA should monitor whether a company has retained an apprentice immediately after successful completion of the trade test. This tracer exercise will allow merSETA to keep track of the retention rates at each of its clients, and this historical data should be used when evaluating each company's grant applications from year to year. Companies with higher retention rates (and increasing retention rates) should be given priority.
8. merSETA needs to educate the industry (particularly those companies not involved in the AATP) to remove the stigma that AATP is a "crash course" and therefore cannot produce artisans of a high quality. This could be done through informative advertising and articles in publications.
9. merSETA should consider rebranding the AATP as it can no longer be considered accelerated. The new name should reflect the programme's unique nature (qualification requirements as well as monitored structure where the compulsory theory and training are concerned).
10. Consider using the CBMT's 'regulated phased approach' for the Time-Based AATP.
11. Owing to the unique nature of the AATP, apprentices need to be serious and disciplined; therefore efforts are needed during the recruitment stage to ensure that candidates who have demonstrated vocational identity and commitment to the trades are prioritised for selection.

12. merSETA can also consider including an entrepreneurship and business skills component in the curriculum for trades. This will help qualified artisans to not only focus on employment, but also possibly start their own businesses and thereby create much needed employment for others.
13. Apprentices should be provided with the merSETA call centre number in the Learning Programme Agreement which should be used to lodge complaints if problems raised directly with their employers have not been resolved.
14. merSETA should review the way in which problems reaching the call centre by the apprentices are tracked and resolved.
15. merSETA should consider employing a technically-minded person (not an administrative person) to monitor the standard of supervision provided to apprentices by their companies.
16. Inclusion of small businesses (SMEs) in the training, development and employment of artisans should be a priority. The SMEs, by nature, do not have the human resources to manage the AATP's milestones and administration appropriately, nor do they always have training specialists in their employ; but they can benefit from the training grants and having qualified artisans in their employ. A collective method could be developed for SMEs in similar sectors operating in close proximity, whereby the management and administration of the training is handled externally (possibly by a merSETA employee or regional office), and where some of the training can be handled by an external provider.

Appendix A. Quotable Quotes

a. Apprentices

- *"The training I got was excellent, but I now realise that I need more varied experience. I'll look for that in my next job."* – Apprentice, KZN.

- *"The best training I got was during the first 6 months at college."* – Apprentice, KZN.

- *"At the company we learnt by looking. At the training institute we learnt by doing."* – Apprentice, KZN.

- *"I am looking for more diverse experience now."* – Apprentice, WC.

- *"When I became employed by the same company that I completed my apprenticeship, they employed me as a semi-skilled artisan, which doesn't seem right."* – Apprentice, WC.

- *"I would like to know if there are other options for me through merSETA, maybe another apprenticeship, as I'd like to become a Welder Inspector."* – Apprentice, WC.

- *"I want to become a supervisor."* – Apprentice, WC.

- *"merSETA is great because they have the internationally-recognised red seal."* – Apprentice, WC.

- *"I was becoming a very good welder, I was even asked to help train other apprentices, but after a year of not finding work and not being able to keep up with welding I have become rusty to the point that I am now failing the interviews. I have no confidence anymore. I am now doing a Microsoft Office course to try and make myself more employable, but I'd still much rather be a welder."* – Apprentice, KZN.

- *"I still haven't received my trade certificate, and I passed the trade test in October 2010. The company I apprenticed at couldn't help me as they haven't received it yet either, and I don't know who to turn to now for help with this."* – Apprentice, WC.

- *"My experience with merSETA is that they showed a lack of concern and follow through, and that nothing ever changed or was fed back to us. Apprentices should have a contact person at merSETA whom they can trust for help."* – Apprentice, KZN.

- *"merSETA needs a technical person who can monitor the milestones and quality of training, and ensure that a company's interpretation of the logbook is correct."* – Apprentice, WC.

b. Employers

- *I enjoy working with the team, payment is on time, and everything is well-run. They know what's going on."*– Employer, GP
- *"I'm happy with the AATP so far, and will expand to other trades eventually but want to first see how the electrical apprentices fare."* – Employer, GP
- *"The team is doing a great job. I like the AATP team for their open communication."*– Employer, MP
- *"The concept of the AATP is good, but it can only work if formal structure is in place to meet the milestones and if there's discipline on both sides. These need to be non-negotiable and ingrained."*– Employer, LP

c. Training Providers

- *"The AATP is far too short."* – Training Provider, GP
- *"We spent a lot of extra money training the apprentices after the programme, as they are still too weak at the end."* – Training Provider, KZN
- *"Recruitment needs to be tighter sometimes, as the AATP calls for discipline and commitment. merSETA needs to ensure that the candidates' maturity levels are assessed as part of the criteria for acceptance."*– Training Provider, KZN
- *"There is a negative stigma in the industry because of the programme's accelerated nature."*– Training Provider, WC
- *"There is too little on-the-job training and structure. And structure is crucial for an accelerated programme to be effective."*– Training Provider, GP
- *"The private training providers don't get enough work - the budget seems to focus on the FET colleges."*– Training Provider
- *"Some processes at merSETA seem to be somewhat bureaucratic."*– Training Provider

- *"Extend course by 6 months: 2 months at training centre and 4 months at company for on-the-job experience."* – Training Provider, KZN
- *"Extend course by 1 year for on-the-job experience."* – Training Provider, GP
- *"A combination of the AATP and a time-based apprenticeship would be ideal as it would be guided by milestones but the apprentices would also constantly be reinforcing what they're learning."*– Training Provider, KZN
- *"merSETA should develop a database of artisans and promote them within their networks."*– Training Provider, KZN
- *"merSETA needs to proactively educate the industry to remove the negative stigma."*– Training Provider, GP
- *"merSETA needs to educate and get buy-in from all relevant parties within a company, especially the trainers, not just CEO, so that the training provided to the apprentices is not only of a high standard, but also benefits the company as well."*– Training Provider, WC
- *"There could be other criteria besides educational level to assess potential, for example natural ability."*– Training Provider, GP

Appendix B. Apprentice Questionnaire

merSETA / UNDERHILL CORPORATE SOLUTIONS	QUESTIONNAIRE (Apprentice) : NO:……	For office use:
	POST TRADE TEST TRACER STUDY OF THE merSETA ACCELERATED ARTISAN TRAINING PROGRAMME	Province / Name of Company
		Interviewer Name: / Date: / Time:

(Please put a star or a tick against an option which best describes you)

SECTION A: DEMOGRAPHICS (Fill-in from the Database)

1. Name of Respondent:		2. Name of Company where Apprenticeship took place				
3. Company Location, District and Province		4. Respondent Contact Details	Work:		5. Respondent's District and Province	
			Cell:			
			Email:			

6. Respondent's race	Black	White	Mixed race	Indian	Asian
	1	2	3	4	5

7. Respondent's gender	Male	Female
	1	2

8. Which Apprenticeship were you involved in?	AATP (Time-Based Trades)	AATP (CBMT)	Non-AATP
	1	2	3

SECTION B: PERFORMANCE STATISTICS

9. When did you begin your Apprenticeship?	2007	2008	2009	2010
	1	2	3	4

10. **(To be asked of AATP graduates only, not non-AATP)** What was your highest qualification before commencing the apprenticeship programme?	N3	N4	N5	N6	NCV Level 4 (Engineering)	Technical or academic matric	Some university	Other	If Other, pleaase specify
	1	2	3	4	5	6	7	8	

ASK ALL

11. Have you passed the final trade test?	Yes	No
	1	2

12. (If **yes** to question 11): In which year did you pass the final trade test?	2007	2008	2009	2010	2011	2012
	1	2	3	4	5	6

13. (If **yes** to question 11): How many times did you take the final test?	Once	Twice	Three times	Four times	More than four times
	1	2	3	4	5

13.1. (If answer to 13.1 was **two or more** times): Could you describe briefly the possible reason for not passing the first time?	I was not adequately prepared	The test was very difficult	Other	If **Other**, please specify reason
	1	2	3	

SECTION C: APPRENTICESHIP QUESTIONS

14. In which trade were you trained in?	Boilermaker	Electrician	Fitter	Millwright	Rigger	Welder	Motor Mechanics	Fitter & Turner	Instrument Mechanics	Automotive Body Repairer	Other
	1	2	3	4	5	6	7	8	9	10	11

15. Are you employed now?			
	Yes	1	*continue to 15.1*
	No	2	*skip to 18*

The following 5 questions should be asked if Respondent answered "Yes" to question 15 (The employed)

15.1 What is the nature of your employment?	Permanent	Contract	Part-time
	1	2	3

15.2 What is the nature of the company that you work for?	Private	Government	Self-employed
	1	2	3

15.3 Are you working in the same trade as the one you were trained in as an apprentice??	Yes	No
	1	2

15.4. Are you employed by the same company that you completed your apprenticeship at?			
	Yes	1	*continue to 15.5 then skip to 17*
	No	2	*skip to 16*

15.5 If **Yes** to question 15.4: Please advise why you chose to stay with this company	They offered me the job	Good career opportunities	Possibility of further training & development	Fear of not finding another job	I could not find a job at another company	Other	If **Other**, please specify reason
	1	2	3	4	5	6	

ASK those working at a different company than where they trained for their Apprenticeship (NO to 15.4)

16. If **No** to question 15.4: Please advise which company you are now employed at	
16.1 Where is this company located?	

16.2. Please advise why you chose to work for this company instead of remaining at the company where you apprenticed	The company where I completed my apprenticeship could not take me on as an employee	Higher wages offered at current company	Better career prospects offered at current company	Better training & development opportunities at current company	Other	If **Other**, please specify reason
	1	2	3	4	5	

16.3 Please advise how you found out about this job	Advertisement	Word of mouth	Someone in the industry recommended me	Labour broker	Other	If **Other**, please specify reason
	1	2	3	4	5	

ASK ALL THOSE WHO ARE EMPLOYED

17. How many companies have you worked for since completing the final trade test?	One	Two	Three	More than three
	1	2	3	4

17.1 Are you actively looking for employment?		
	Yes	1
	No	2

The following 11 questions should be asked if Respondent answered "No" to question 15 (The Unemployed)

18. Are you actively looking for employment?	Yes	1
	No	2

18.1 If **Yes** to question 18: Please advise how long you have been actively looking for employment?	Less than 3 months	Between 3 and 6 months	Between 6 months and 1 year	Between 1 and 2 years	More than 2 years	Other
	1	2	3	4	5	6

18.2 How many companies have you applied to?	One	Two	Three	Four	More than four	Other
	1	2	3	4	5	6

18.3 How are you looking for a job?	Advertisements	Word of mouth	Industry people	Labour brokers	Other	If **Other**, please specify
	1	2	3	4	5	

18.4 What type of job are you looking for?	A job in the same trade as my apprenticship	Anything	Something specific but not in my original trade	If **Other Specific**, please specify
	1	2	3	

18.5 Are you still interested in pursuing a career as an artisan?	Yes	No	If **No**, please specify a reason
	1	2	

18.6 Could you describe briefly the possible reason/s for not having found employment yet?	I do not want a job	Too few jobs available on the market at the moment	More experienced people are getting the jobs	I am not looking hard enough	I am being turned down by every company I apply to, but I do not know why	Other	If **Other**, please specify reason
	1	2	3	4	5	6	

19. Have you been employed at all since passing your final trade test?	Yes	1
	No	2

19.1 If yes to question 19: Were you working in the same trade as the one you were trained in as an apprentice??	Yes	No
	1	2

19.2 If yes to question 19: How long were you employed for?	Less than 1 year	About 1 year	Between 1 and 2 years	Over 2 years
	1	2	3	4

19.3 If yes to question 19: Could you describe briefly the possible reason/s for no longer being employed at the most recent company?	I did not want a job anymore	The company needed to cut jobs	I did not like the job	The job was not well-paid enough	I do not know the reason	Other	If **Other**, please specify reason
	1	2	3	4	5	6	

ASK ALL

20. Who were you trained by during your apprenticeship programme at the company?	Internal company staff member	1
	External training provider	2
	Both	3

20.1 Please rate the quality of the training provided to you by your mentor or trainer?	Excellent	1	Comment
	Good	2	
	Fair	3	
	Poor	4	

21. Since passing your trade test, have you done any other training courses?	Yes	1
	NO	2

21.1. If answer to question 21 is **Yes:** Please advise which one/s	1..... 2..... 3..... 4.....

22. Is there anything you think should be done to improve the usefulness (effectiveness) of the apprenticeship programme?	1..... 2..... 3..... 4.....

Appendix C. Employer Questionnaire

QUESTIONNAIRE (Employer) : NO:……	For office use:	
POST TRADE TEST TRACER STUDY OF THE merSETA ACCELERATED ARTISAN TRAINING PROGRAMME	Province	Name of Company
	Interviewer Name:	Date:
		Time:

(Please put a star or a tick against an option which best describes you)

SECTION A: DEMOGRAPHICS

1. Name of Respondent:		2. Company Location, District and Province	
3. Respondent's Position in the Company:		4. Respondent Contact Details	Work:
			Cell:
			Email:

5. Which Apprenticeships do you take on?	AATP	Non-AATP	Both
	1	2	3

6. What type of training programmes do you take on?	Apprenticeships	Learnerships	Both
	1	2	3

SECTION B: PROGRAMME STATISTICS

***** Very important: Please advise Respondent that the rest of the questions relate to APPRENTICESHIPS ONLY, not Learnerships.**

7. When did you start taking on Apprentices on the **AATP platform**?	2007	2008	2009	2010	2011	2012
	1	2	3	4	5	6

8. What was your total apprentices intake?	2007	2008	2009	2010	2011	2012

9.1. Approximately what percentage of apprentices became employed in your company after successfully passing their trade test **under AATP platform**?	0 - 5%	6 - 10%	11 - 15%	16 - 20%	21 - 30%	31 - 40%	41 - 50%	More than 50%
	1	2	3	4	5	6	7	8

9.2. Approximately what percentage of apprentices became employed in your company after successfully passing their trade test **under Non-AATP platform**?	0 - 5%	6 - 10%	11 - 15%	16 - 20%	21 - 30%	31 - 40%	41 - 50%	More than 50%
	1	2	3	4	5	6	7	8

10. Do you have a limit on the number of times an apprentice of yours can fail the final trade test, after which he/she will need to leave the apprenticeship programme of your company?	Once	Twice	Three times	Four times	No limit
	1	2	3	4	5

11. Could you describe briefly the possible reason/s for apprentices not passing the final trade test the first time?	Not being adequately prepared	The test was difficult	Don't know	If **Other**, please specify reason
	1	2	3	

12. When **retaining** an apprentice after he/she has passed the final trade test, what tends to be your main reason/s for doing so?	Apprentice performance	Manpower planning	Company experiencing high growth and in need of additional resources	Policy considerations	Employment capacity	Other	If **Other**, please specify reason
	1	2	3	4	5	6	

13. When **releasing** an apprentice after he/she has passed the final trade test, what tends to be your main reason/s for doing so?	Apprentice performance	Employment opportunities limited	Company anticipating a period of low growth	Not enough work for additional staff	Financial constraints	Other	If **Other**, please specify reason
	1	2	3	4	5	6	

14.1. If **BOTH** to question 5: Have you noticed any differences between the capabilities of the AATP and non-AATP apprentices?	Yes	No
	1	2

14.2. If **Yes** to question 14.1: Please advise what those differences are (please speak in general terms which might be applicable to the majority rather than just a few individuals)	1. …… 2. …… 3. …… 4. ……

Appendix D. Training Provider Questionnaire

QUESTIONNAIRE (Training Provider) : NO:.....		For office use:	
POST TRADE TEST TRACER STUDY OF THE merSETA ACCELERATED ARTISAN TRAINING PROGRAMME		Province	Name of Company
		Interviewer Name:	Date:
			Time:

(Please put a star or a tick against an option which best describes you)

SECTION A: DEMOGRAPHICS

1. Name of Training Provider:		2. Centre Location District and Province	

3. Respondent Contact Details	Work:		4. Are you an internal training provider (mentor) or external?	Internal	External
	Cell:			1	2
	Email				

5. Which Apprentices do you train?	AATP	Non-AATP	Both
	1	2	3

6. 1. When did you begin training Apprentices?	Prior to 2007	2008	2009	2010	2011	2012	If Prior to 2007, Indicate the YEAR
	1	2	3	4	5	6	

6.2. When did you begin training Apprentices on **the AATP platform?**	2007	2008	2009	2010	2011	2012
	1	2	3	4	5	6

SECTION B: PROGRAMME QUESTIONS

7. How many apprentices do you normally train at the same time within 1 company?	One	Between 2 and 5	Between 6 and 10	Between 11 and 20	More than 20
	1	2	3	4	5

8. For a particular trade within a company, are you the sole training provider, or do you share the responsibility with other training providers/staff members?	Sole provider	Shared responsibility
	1	2

9. Could you describe briefly the possible reason/s for apprentices not passing the final trade test the first time?	Not being adequately prepared	The test was difficult	Don't know	Other	If **Other**, please specify reason
	1	2	3	4	

10. Do you also take on non-AATP apprentices?	Yes	No
	1	2

10.1. If **Yes** to question 10: Have you noticed any differences between the capabilities of the AATP and non-AATP apprentices?	Yes	No
	1	2

10.1.1. If **Yes** to question 10.1: Please advise what those differences are (please speak in general terms which might be applicable to the majority rather than just a few individuals)	1. ..... 2. ..... 3. ..... 4. .....