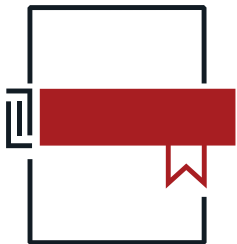




National Student Financial Aid Scheme

NSFAS Research Report¹ 3 2018/19: Labour market absorption



NSFAS Research reports contain original research designed to inform and improve internal NSFAS operational efficiency, to inform the wider stakeholder community, as well as forming the base for policy proposals. This research output is based on content consolidated for the NSFAS Client Report 04 of 2018/19: The National Student Financial Aid Scheme (NSFAS) and its impact: Exploring the absorption into employment of NSFAS funded graduates, in addition to consideration of a wider set of relevant and more updated literature.

In this report the reader will find:

- Data (demographic and study related) on NSFAS funded students between 2005 and 2015
- Labour market absorption rates of NSFAS funded graduates between 2005 and 2015.
- Exploration of field of study and institutional difference in the likelihood of employment for NSFAS funded graduates

Prepared
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¹ Subsequent to an Editorial Committee meeting it was agreed that all research outputs in their current form are very informative and represent novel analysis and interpretation. It was advised that these outputs should be renamed, and distribution should be extended to a wider range of stakeholders; such as – student organisations, PSET institutions and policy makers. All these reports are subject to an external review process alongside Editorial Committee approval. Approval for this report was secured through the incorporation of such comments received on the 27th of February 2019.

INTRODUCTION

Access to university education is increasingly seen as one of the key mechanisms to achieve social mobility in low- and middle-income countries². Public funded schemes, as a means to support and expand access to higher education have also grown, now existing in more than 70 countries across the world³.

Type of access and loan scheme objective / coverage, country examples			
Loan scheme objective	Loan scheme coverage		
	Tuition fees only	Living expenses only	Tuition and living expenses
Cost-sharing	Australia		England, New Zealand
Student independence	Hong Kong (NLS) ^{a)} Korea (GECP) ^{b)}	Denmark, Finland, Hungary, Norway, Sweden	Canada
Social targeting	The Philippines	Hong Kong (LSFS) ^{c)} Korea (MOE) ^{d)}	China, South Africa Thailand ^{e)}
<small>^{a)} Hong Kong: non-subsidized scheme (NLS), ^{b)} Korea – Government Employees scheme, ^{c)} Hong Kong: subsidized scheme (LSFS), ^{d)} Korea – Ministry of Education scheme, ^{e)} Thailand – Student Loan Scheme (SLS)</small>			

Source: Ziderman (2013).

Figure 1: Type of access and loan scheme objective/coverage, country examples
Source: Ziderman (2013)

The National Student Financial Aid Scheme (NSFAS) has a very clear ‘social targeting’ objective. The scheme focuses on increasing accessibility of the poor and other marginal groups, rather than cost sharing and student independence models, (see Figure 1 above).

A small, but growing body of literature suggests that NSFAS funding has impacted positively on student access, progression and success in post-school education and training⁴. What is less well researched is the pattern of labour market participation of its beneficiaries.

CONSTRUCTING A NOVEL DATASET

NSFAS maintains a range of separate datasets at unit record level to inform disbursement of loan and bursary funding and to monitor the repayment of loans. For the purposes of this analysis, a unique dataset was constructed, at unit record level, by matching data across three distinct administrative datasets: NSFAS funding data from 2005 – 2015; South African higher education enrolment and graduation records (HEMIS) from 2005 – 2015; and employment information as at 22 February 2017 (from the South African Revenue Service).

² Schendel, R., and McCowan, T. (2016). Expanding higher education systems in low- and middle-income countries: the challenges of equity and quality. *Higher Education*, 72(4), 407-411.

³ Johnstone, B. (2003) Higher Education finance and accessibility: Tuition fees and student loans in Sub Saharan Africa. Paper present for conference on “Improving Tertiary Education in SSA: Things that work! Accra, Ghana, September 2003.

⁴ De Villiers, P., van Wyk, C. and van der Berg, S. (2013). The first five years project - a cohort study of students awarded NSFAS loans in the first five years 2000 - 2004. Stellenbosch Economic Working Paper 11/13, Department of Economics and the Bureau for Economic Research at the University of Stellenbosch.

The final dataset contained 11 distinct cohorts of NSFAS funded students that graduated from a public higher education (HE) institution with a degree in 2005 (n = 5 552), 2006 (n = 9 314), 2007 (n = 12 246), 2008 (n = 15 275), 2009 (n = 18 232), 2010 (n = 20 732), 2011 (n = 25 234), 2012 (n = 32 009), 2013 (n = 38 648), 2014 (n = 46 723) and 2015 (n = 54 891).

For the purposes of this study, the absorption of NSFAS graduates is defined as the **percentage of NSFAS-funded higher education degree graduates⁵ in employment**. Having filed a tax return with the South African Revenue Service (SARS) by 22 February 2017 was taken as proxy for employment⁶.

KEY FINDINGS

Relevant descriptive statistics for the total sample are presented in Figure 2.

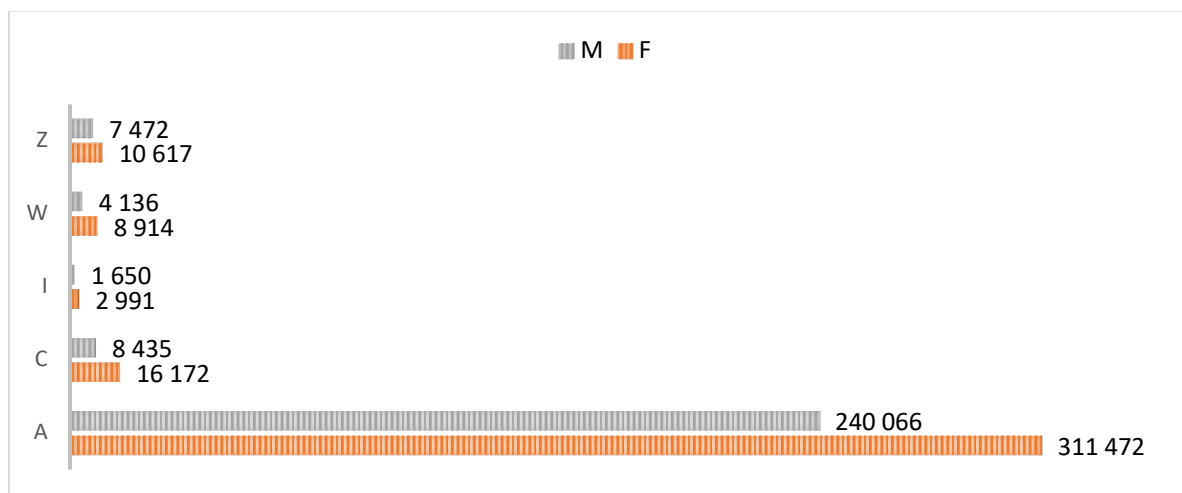


Figure 2: All NSFAS funded students between 2005 – 2015 by race and gender
 Source: Wildschut et al (2018)⁷
 N = 611 963

In summary, the information illustrates that:

- The majority of NSFAS funding recipients come from designated groups
- Beneficiaries were predominantly female (57%)
- Recipients were disproportionately African (90%), with smaller proportions of Coloured (4%), White (2%), Indian (0.7%) and recipients classified as Other (3%).

⁵ This is a decision influenced by the available data but is also consistent with the approach of other (See Altbeker & Storme 2013, Van Broekhuizen 2016, Van der Berg & Van Broekhuizen 2012, Rogan et al 2016) recent contributions to the South African literature.

⁶ This proxy for employment status comes with several important limitations. It does not include all types of employment and some graduates who are in informal, casual or low paying employment will not be captured as being employed in this database. Second, it is possible that even the 'valid' entries could include past (i.e. not current) employment data (because employment data are only updated once a tax return is filed). To the extent that this is the case, the employment estimates presented in this paper should be seen as upper-bound estimates.

⁷ Note: M = Male, F = Female, A = African, C = Coloured, I = Indian/Asian, W = White, Z = Other

i. Low graduation, but high average absorption

Figure 3 illustrates the total number of NSFAS supported higher education graduates that are employed. The total of 252 648 NSFAS funded graduates were found to be employed, representing about two fifths (41%) of all NSFAS-funded students between 2005 and 2015 (611 963) and 91% of all NSFAS-funded graduates between 2005 and 2015 (278 856).

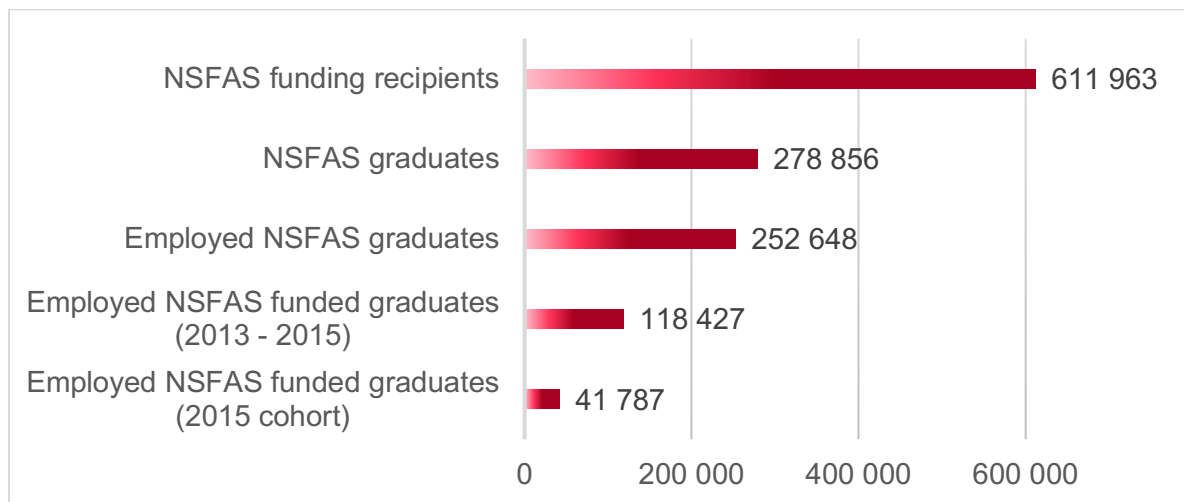


Figure 3: NSFAS funded graduates that found employment contextualised
Source: Wildschut et al (2018)

ii. Labour market absorption over time

The number of NSFAS-funded graduates in employment has risen steadily since 2005 from 5 455 to 41 787 in 2015 (see Figure 4 below). The employment proportion is highest for NSFAS-funded students that graduated in 2005 (98%) and by the time we get to the 2015 graduate cohort, the labour market absorption is 76%. As expected, an individual’s likelihood of being employed increases as the period after graduation increases.

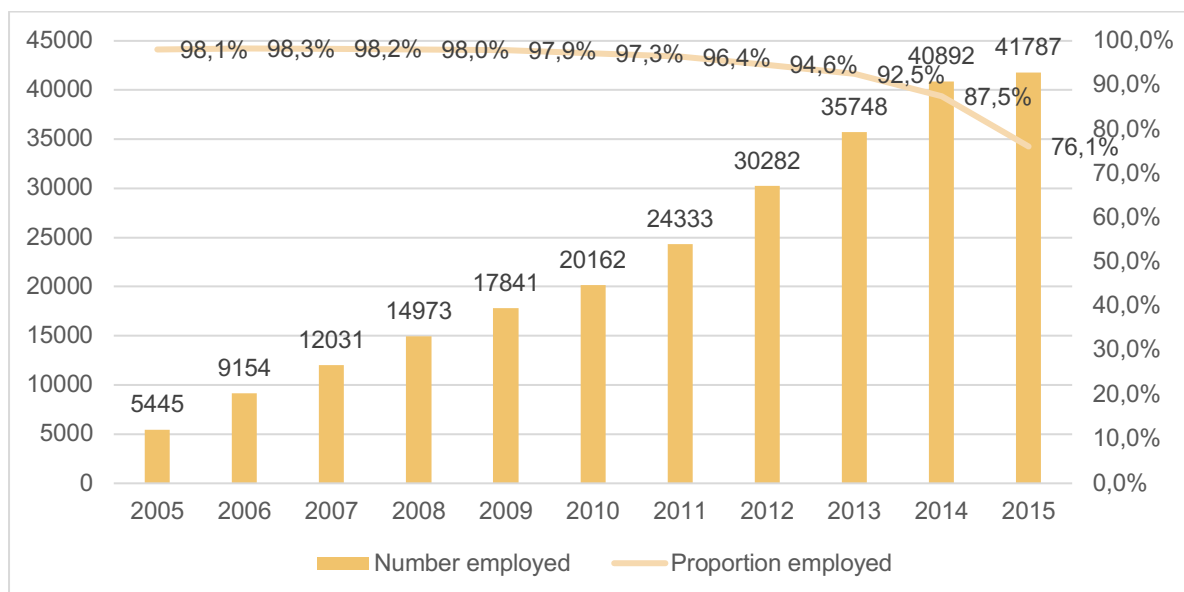


Figure 4: Number and proportion of NSFAS funded graduates between 2005 and 2015 (employed as at 22 February 2017)
Source: Wildschut et al (2018)

iii. Field of study plays a role in rate of absorption

Focusing on the 2013 – 2015 graduating cohorts, the analysis indicates that graduates from the fields of Engineering, Health Sciences, Education, and Architecture and the Built Environment, have consistently higher employment proportions than graduates from Public Management and Services, Psychology, Social Sciences and Life Sciences. For the Engineering, Health Sciences, Education, and Architecture and the Built Environment fields, there is also a much smaller difference between employment proportions for 2015, 2014 and 2013 graduates.

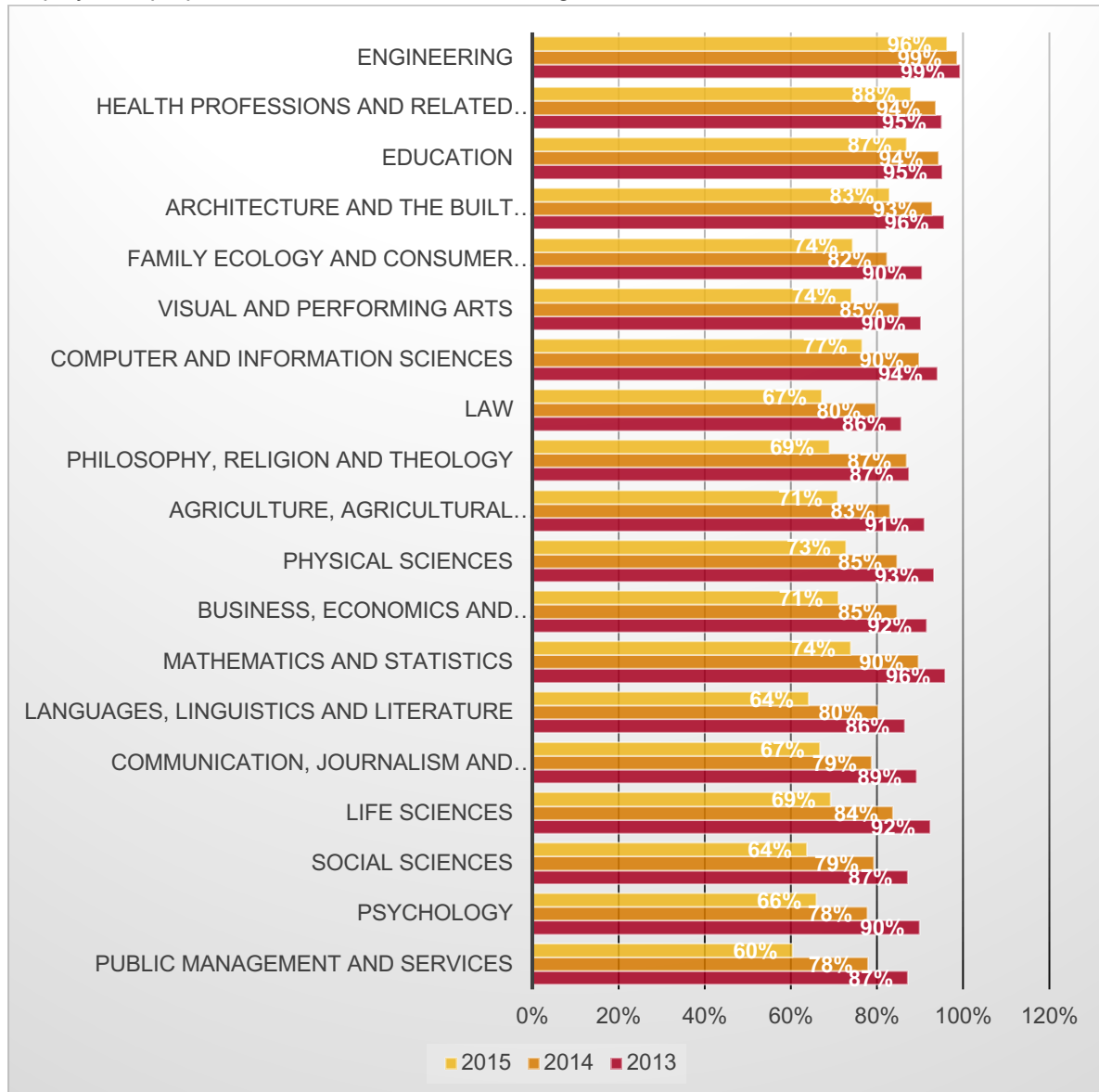


Figure 5: Employment proportion disaggregated by field of study for 2013 – 2015 cohorts of NSFAS funded graduates
 N=118 427
 Source: Wildschut et al (2018)

For example, 96% of the 2015 NSFAS-funded Engineering graduates had found formal employment by 2017. This proportion rises to 99% for the 2014 and 2013 cohorts. Conversely, graduates in Public Management and Services, start with a low employment proportion for the 2015 graduating cohort (60%) which rises to 78% for 2014 and 87% for the 2013 graduating cohort. This suggests that graduates from some fields are absorbed quicker into the labour market than other fields of study, or of course that some continue studying for a post-graduate qualification.

iv. Strong and significant association between university type and the probability of employment

Looking at the 2015 graduating cohort only, we investigate how a range of variables (demographic characteristics, university type and field of study) affect labour market absorption⁸. The employment outcomes of this cohort are seen as a good indication of time to first job, as just over a year would have passed since their graduation.

The main findings are that:

- women are less likely to be employed than men, regardless of university type and field of study;
- African graduates are less likely than graduates from other race groups to be in employment, regardless of university type and field of study;
- graduates from comprehensive universities are less likely to be in employment than those from universities of technology and traditional universities (controlling for race and gender), supporting the conclusions from earlier work⁹.
- Humanities graduates remain less likely to find employment than Education, Health Sciences and Science, Engineering and Technology (SET) graduates shortly after graduation;
- the association between university type and employment strengthens when field of study is taken into account; indicating that graduates from comprehensive universities face an even lower probability of being employed once field of study is held constant in the specification.
- Graduates from historically advantaged institutions (HAIs) have generally higher employment rates than graduates from historically disadvantaged institutions (HDIs).

⁸ Wildschut, A., Mncwango, B., Rogan, M., Rust, J. & Fongwa, S. (2018) Absorption into employment of NSFAS funded graduates. Client report prepared for the National Student Financial Aid Scheme (NSFAS). March.

⁹ Rogan, M. & Reynolds, J. (2016) Schooling inequality and the labour market: Evidence from a graduate tracer study in the Eastern Cape, South Africa. *Development Southern Africa*, 33(3). Van Broekhuizen, H (2016) Graduate unemployment and higher education institutions in south africa. Stellenbosch Economic Working Papers: 08/16. Department of Economics, University of Stellenbosch. Stellenbosch.

Figure 6 highlights how absorption rates differ quite substantially (34.4 percentage points separate the absorption rate of Cape Peninsula University of Technology (CPUT) graduates from University of Limpopo graduates) depending on the institution attended.

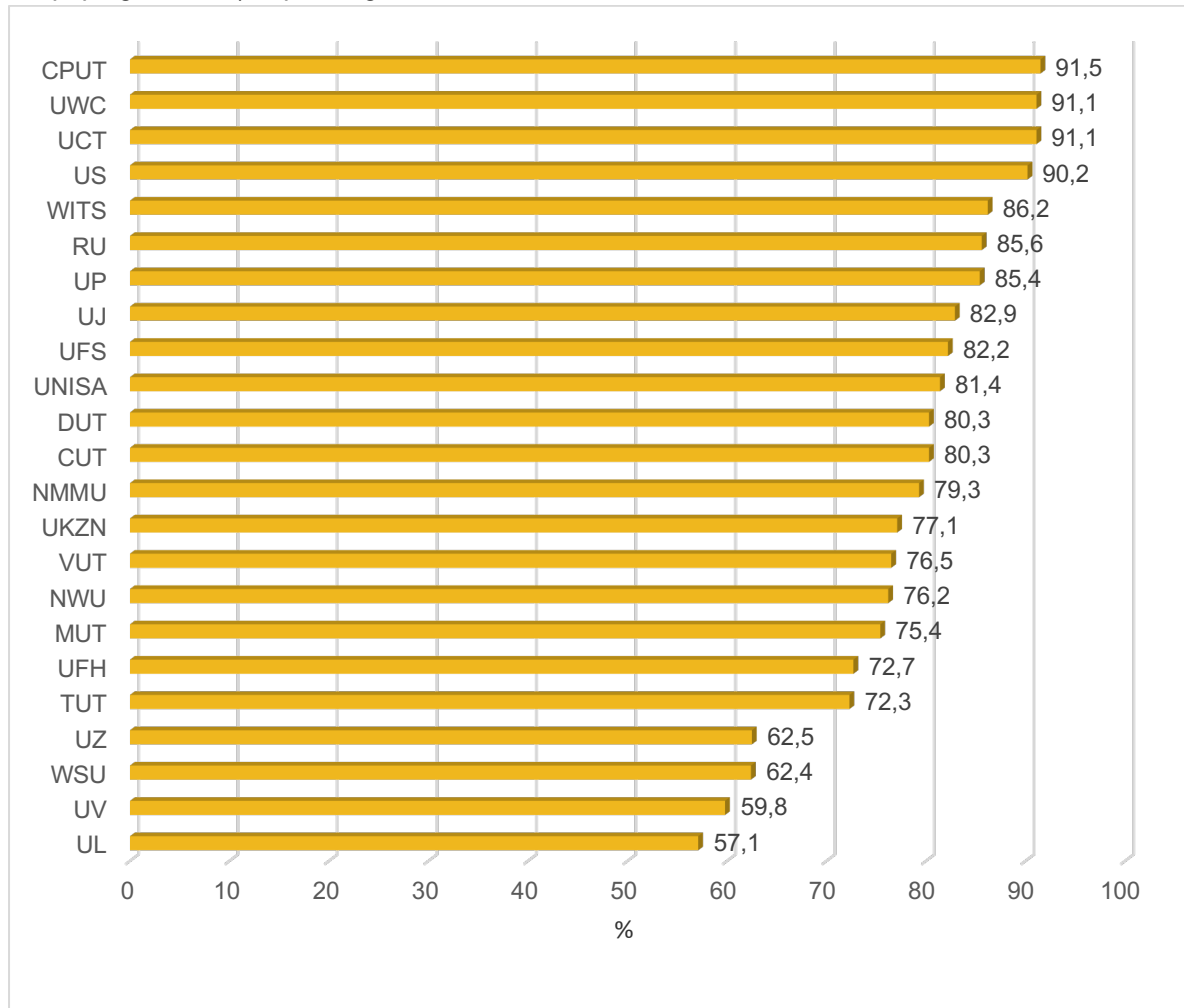


Figure 6: Employment proportions for the 2015 graduating cohort, by institution
 Source: Own calculations from merged dataset
 (N= 54,777)

The top three universities ranked by the percentage of employed 2015 NSFAS-funded graduates, are CPUT (91.5%), followed by the University of the Western Cape and the University of Cape Town in second and third place (both 91.1%). In contrast, the lowest absorption rates were found among graduates from Walter Sisulu University (62.4%), the University of Venda (59.8%) and the University of Limpopo (57.1%). This pattern indicates that the probability of employment is correlated quite closely with the historical hierarchy of institutions within the South African higher education system as well as the fact that universities with the higher rates of graduate employment are located in larger cities, while those with the lowest levels of graduate employment are found in secondary cities, smaller towns and/or the former homeland areas.

POLICY RECOMMENDATIONS FOR NSFAS

A high average absorption of NSFAS-funded HE graduates, but low graduation rates: NSFAS-funded degree graduates have roughly a 90% chance of becoming employed; their labour absorption rises to full employment within about seven years of graduation. A continued policy challenge is poor graduation rates where policy solutions and interventions should be found to facilitate better support to NSFAS-funded students to improve graduation rates.

Gender, race and university type continue to be significant predictors of the likelihood for labour absorption: Our findings point to ongoing inequality in labour absorption affecting African and female graduates; they may reflect preferences/discrimination by employers in employment decisions regarding different societal groups, or other factors that affect these graduates' success in gaining employment. NSFAS might consider targeted interventions to assist beneficiaries, especially at institutions where employment likelihood is lower than in others. For example, winter/summer schools for its supported students/graduates to educate them on employment possibilities and interview preparation.

Field of study plays a significant role as predictor of the likelihood for employment: Humanities graduates are significantly less likely to be employed than Education, Health Sciences and SET graduates, and there is also evidence of a quicker rate of labour absorption in these professional fields in comparison to Humanities graduates. The question of focussed funding is one that should be raised with the Minister.