



UNIVERSITY OF THE FREE STATE: USING DATA TO BUILD A HIGH TECH-HIGH TOUCH APPROACH TO STUDENT SUCCESS

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FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA

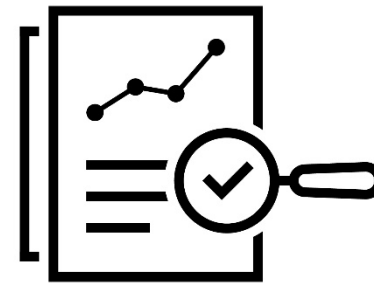


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ONDERRIG-EN-LEERSENTRUM
(OLS)



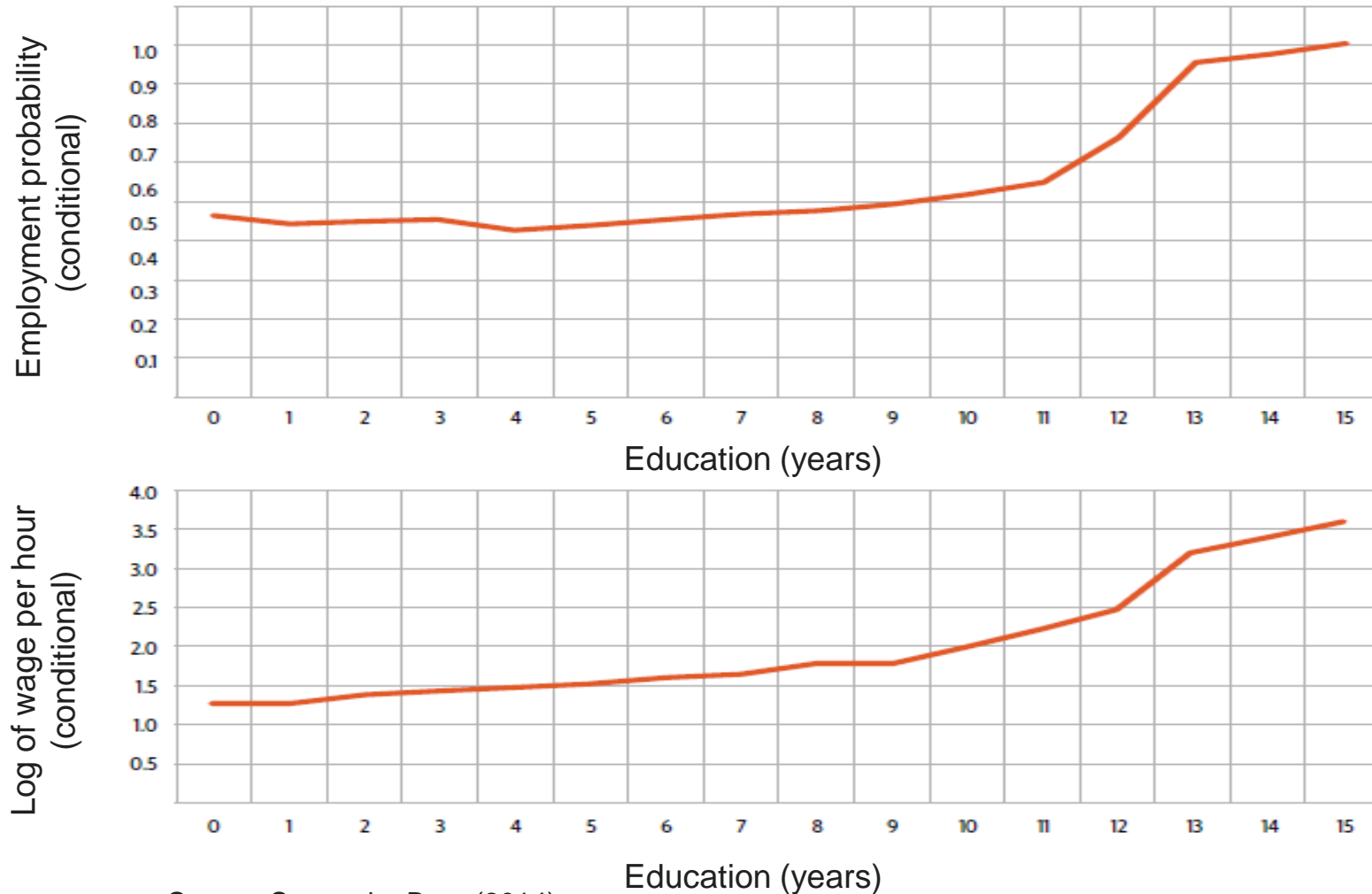
OVERVIEW

- Student success: Social Justice Imperative
- Putting the student central
- Prioritising scaling of support
- Improving analytics
 - Predictive analytics
- Experimenting with nudging
- Developing advising interfaces
- Capacity development



Student success: Social Justice Imperative

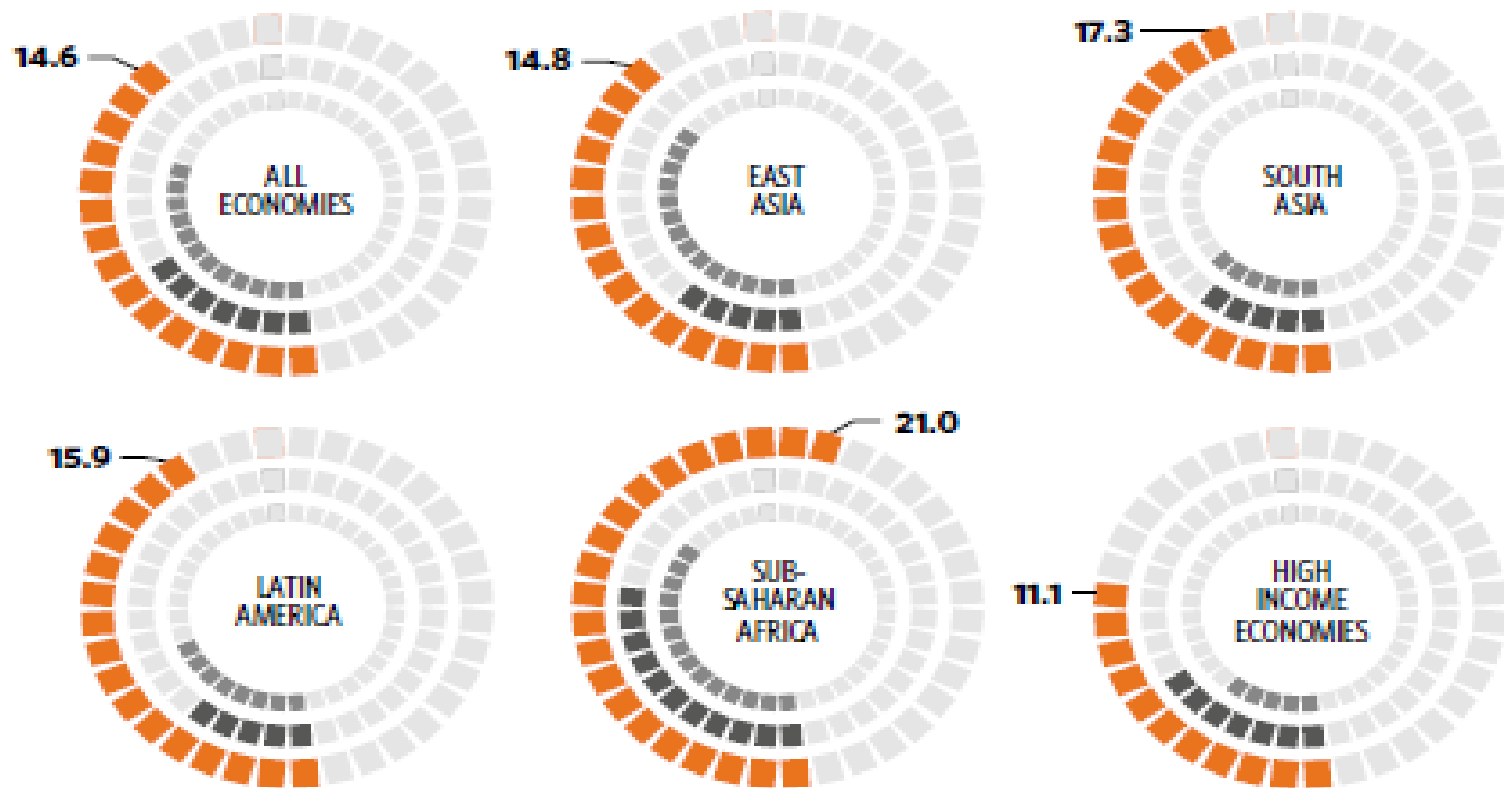
Figure 1: Conditional probability of employment and conditional log of wages by years of education



Source: S. van der Berg (2014)

Student success: Social Justice Imperative

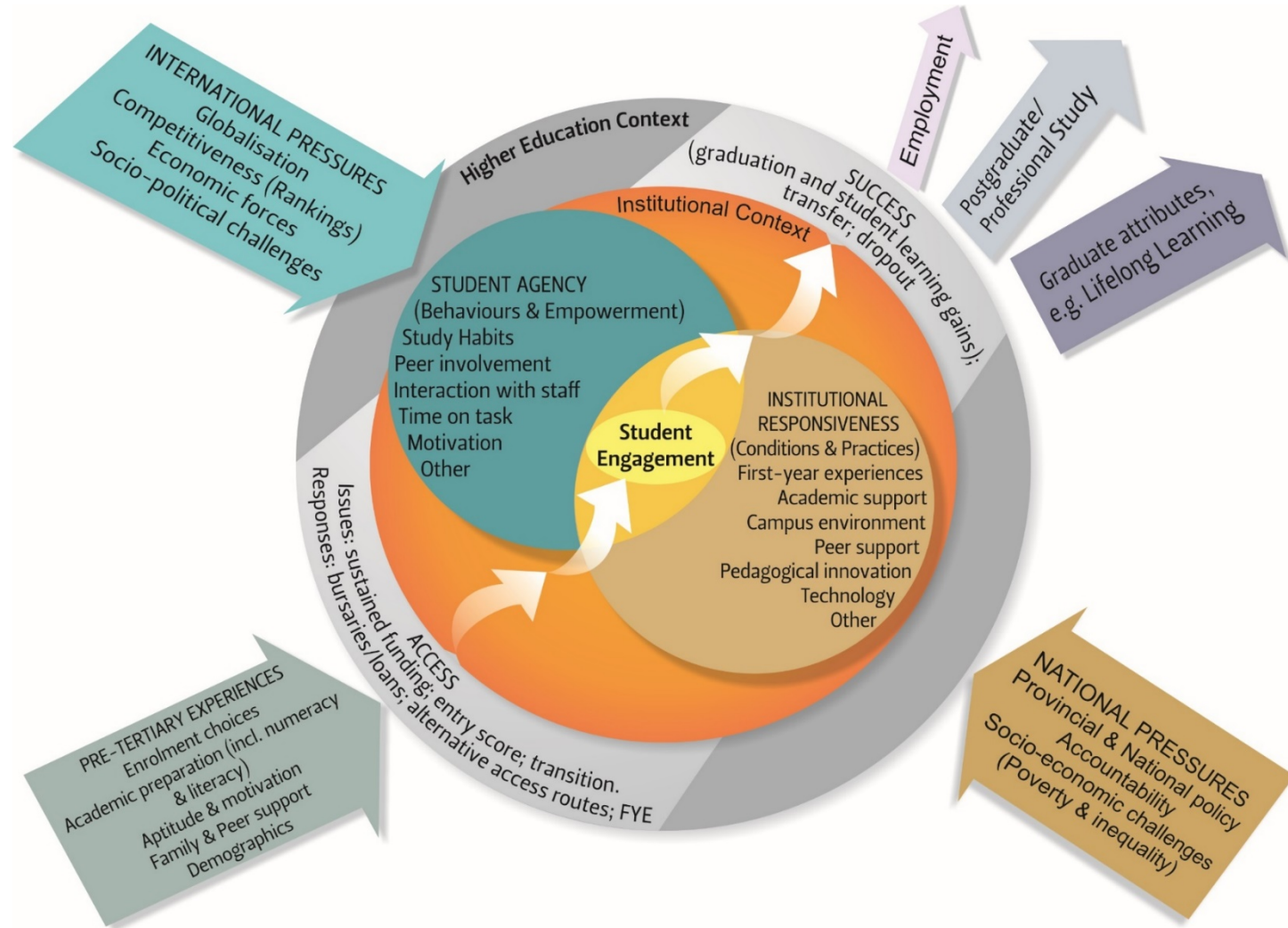
Figure 2: Private returns on education by level and region (2014)



Source: DHET (2015)

■ Primary education ■ Secondary education ■ Tertiary education

Putting the student central



Prioritising scale

INTERVENTION	Number of students 2018
UFS101	9200
Academic Student Excellence Tutorial Programme (A-STEP)	10 230
Academic Advising (Face-to-face, group advising and digital platforms)	16 639
Language Development Students enrolled in compulsory language development Students making use of academic writing support	10 683 14 400
Student Success Portal (Active users)	36 631

Improving analytics

- Tshehetsa project
 - Developing at risk models
 - Possible risk indicators
 - Grade 12 English (as home language or general mark),
 - students' average credit load,
 - average number of modules they are registered for and
 - the sum of the total number of modules they registered for
 - Developing predictive models

Predictive analytics

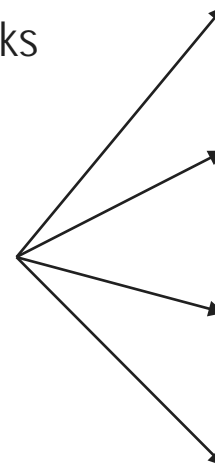
Students = 35521
(from 2014 – 2018)



Historical data



Find student data
that predict
university marks



75% - 100%



50% - 75%



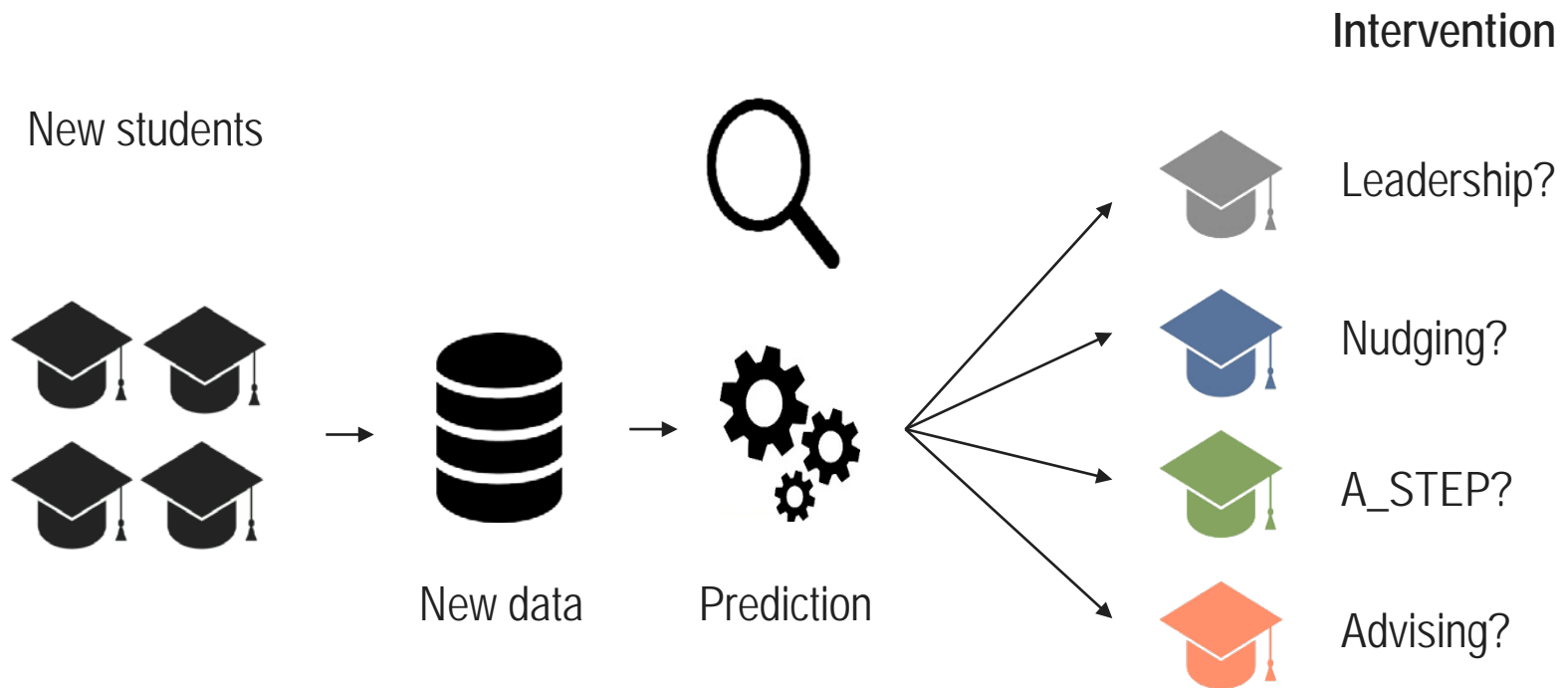
25% - 50%



0% - 25%

Performance at
university

Predictive analytics



Experimenting with nudging







Table1: Blackboard views per risk group








Per risk group	Enrolled	Presentation		Video and quiz	
		Counts	% out of group	Counts	% out of group
Fail group	437	173	40%	261	60%
Pass group	470	173	37%	261	56%
Distinction group	32	12	38%	19	59%
Total	939				

Total group	Presentation		Video and quiz	
	Counts	% out of enrolled	Counts	% out of enrolled
Watched	358	38%	541	58%
Not watched	581	62%	398	42%

Developing advising interfaces

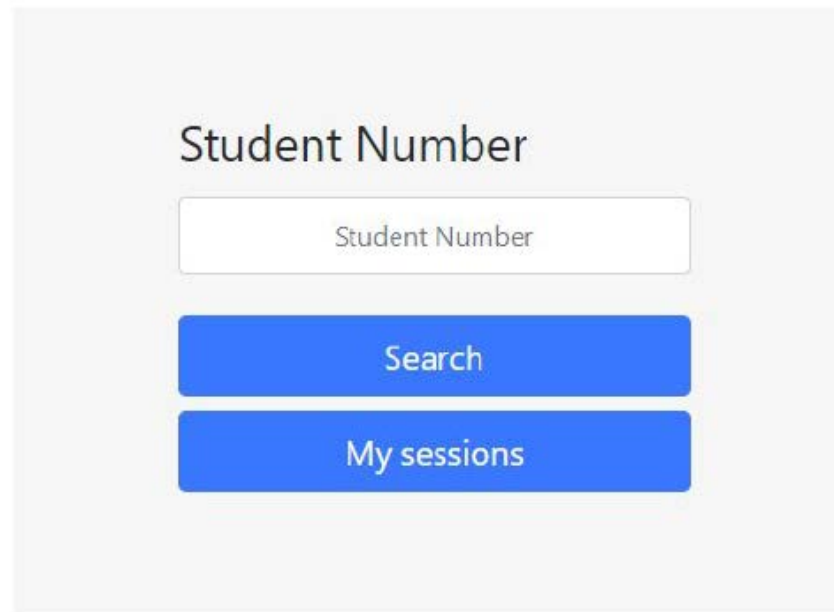
- Beginning University Survey of Student Engagement (BUSSE)
- E-template

Expected Transition Difficulty	
How difficult do you expect the following to be:	1 = Not at all difficult to 6 = Very Difficult
Learning subject material	 2
Managing your time	 1
Paying university expenses	 6
Getting help with academic work	 2
Making new friends	 1
Interacting with staff	 1

Academic Preparation	
How prepared are you to do the following:	1 = Not at all prepared to 6 = Very prepared
Write clearly and effectively	 5
Speak clearly and effectively	 5
Think critically and analytically	 5
Analyse numerical or statistical information	 5
Use computing and information technology	 3
Work effectively with others	 6
Learn effectively on your own	 5

Developing advising interfaces

Case management system



Student Number

Search

My sessions

Developing advising interfaces

Case management system

< Session 1 - Initial Evaluation

Consultation Type

Appointment walk-in ▾

Consultation Mode

One on one ▾

Duration

20 minutes ▾

Comments and Notes

Add comment

1 Jan: Some User
AAA

1 Jan: Some User
AAA

1 Jan: Some User
AAA

Interventions

Add Referral

Add Follow-up Session

Add Intervention

#	Date	Type	Goals Set	Status	Actions
1	1 Jan 2018	Educational plan	Career advising	Completed	Open
2	1 Jan 2018	Follow-up Session	-	Pending	Open

Developing advising interfaces

Case management system

Case Management Sign out

Ms Jane Doe

ST 148544585 (Student Number) @ janedoe12@institution.ac.za
ID 79854785412 (Passport Number) 082 321 6543
Coloured Malawi
No disabilities 5 June 1994

Faculty	Faculty of Something	Residence	● Not In Residence
Degree	Degree Name	International	● International Student
Admit Type	Conditional	Campus	North-west
Acad Level	Level		
Acad Year	2019		
Acad Prog	Programme Name		
Graduation Yr	2022		

ADDITIONAL DETAIL (OPENS IN POPUP)

- Academic Record
- Success Summary
- Charts

Category	Value
1	15000
2	21000
3	18500
4	23500
5	23000
6	23500

Sessions Overview

- Ms Jane Doe**
Session 1
Initial Evaluation
2 Jan 2019 / Completed
- Ms Jane Doe**
Session 2
Follow up
2 Jan 2019 / In Progress
- Ms Jane Doe**
Session 3
2 Jan 2019 / Req Attention
- Ms Jane Doe**
Session 4
2 Jan 2019 / In Progress
- Ms Jane Doe**
Session 5
2 Jan 2019 / Req Attention

New Session +



Capacity development

- SASSE user workshops – 21 institutions and 600 people
- Data analytics workshops: Basic, Intermediate, Advanced
 - Core needs – Decision making, Interpretation, Stats/ data basics, Using and analyzing data
- Academic Advising Professional Development – Short Learning Programme
 - UCDG – collaborative grant
 - UFS, UP, WITS, NMU, DUT, MUT, UCT

QUESTIONS?



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What motivates us...

“

I have walked that long road to freedom. I have tried not to falter; I have made missteps along the way. But I have discovered the secret that after climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on the distance I have come. But I can rest only for a moment, for with freedom come responsibilities, and I dare not linger, for my long walk is not yet ended.”

- Nelson Mandela