

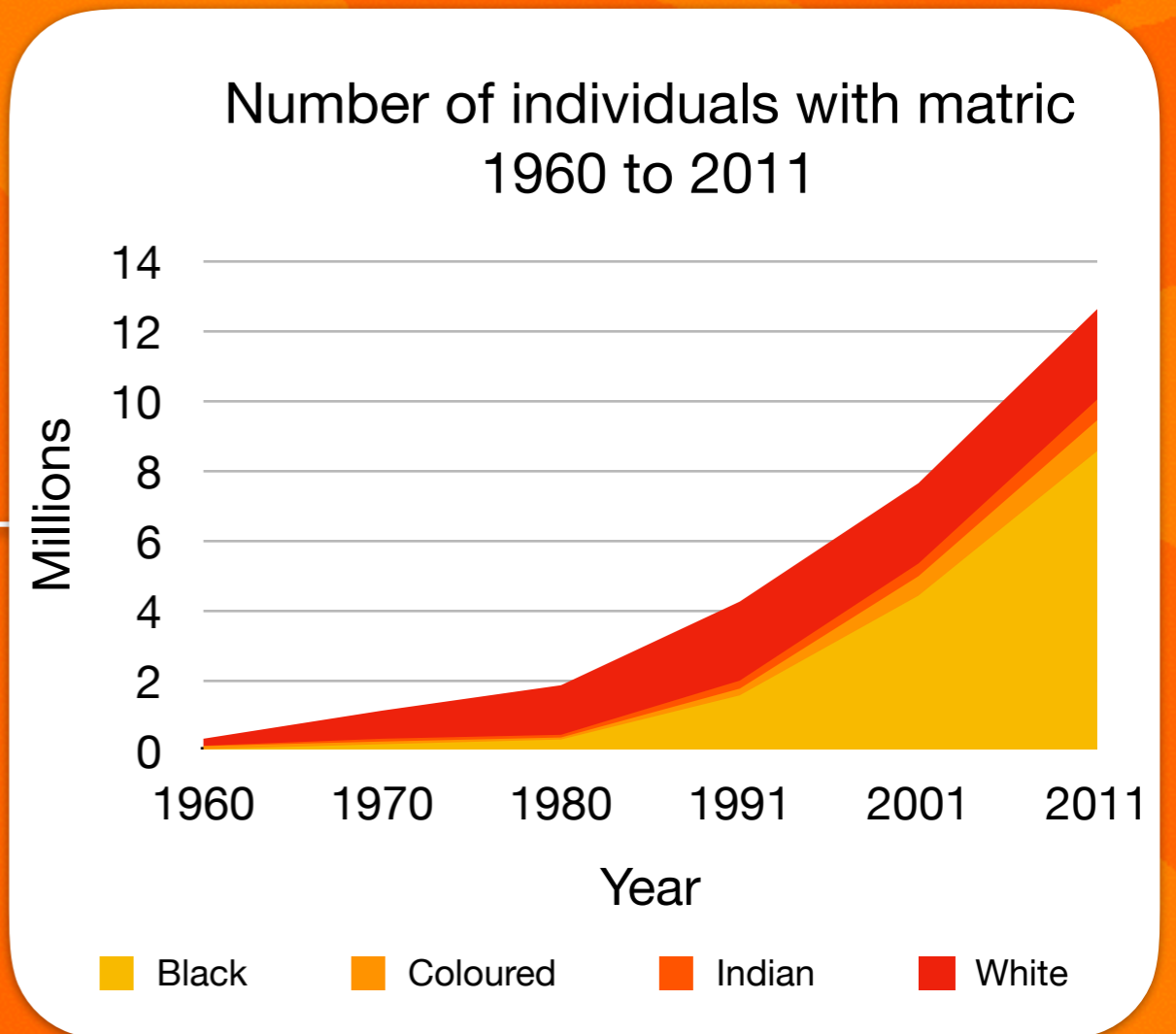
From DREAM to Success

Stories from the Siyaphumelela Initiative

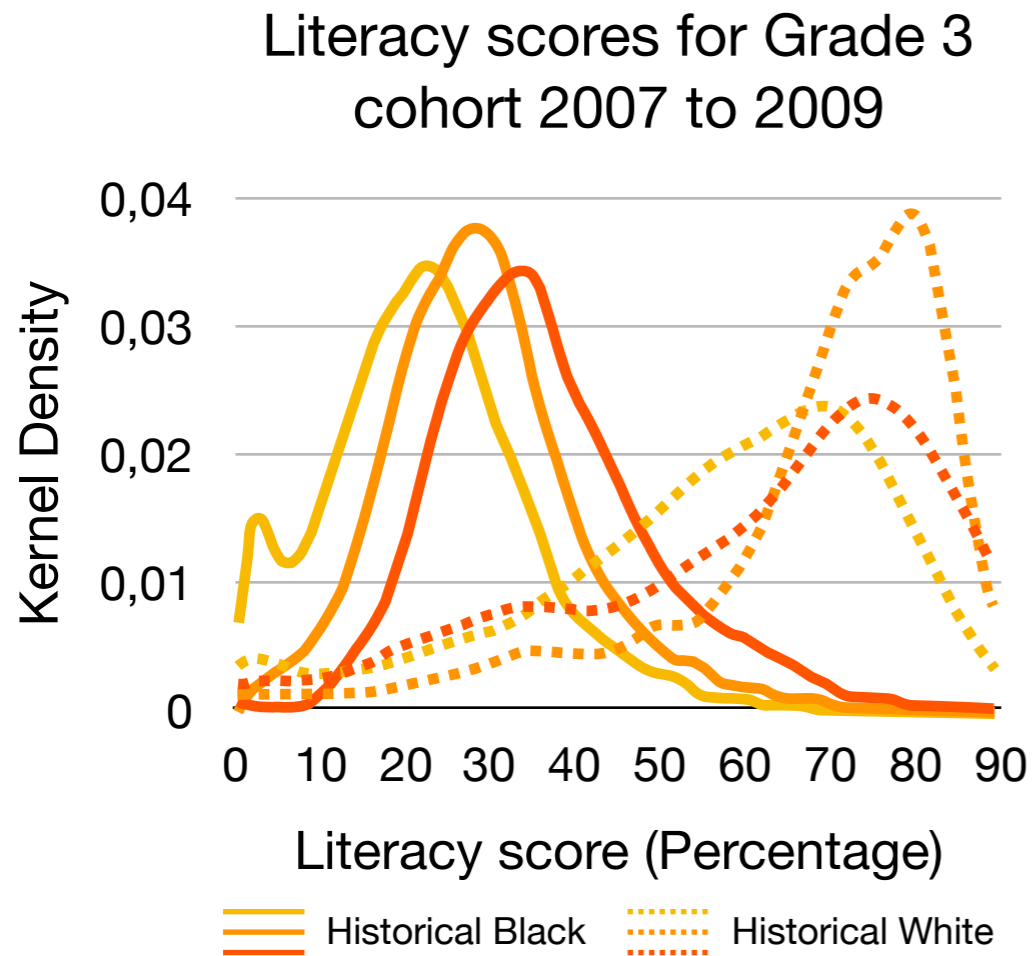
Jenny Glennie, Kudayja Parker, Charles Sheppard,
Francois Strydom, Gugu Tiroyabone, Matete
Madiba, Mxolisi Masango and Fezile Mdluli

Divided Society - Schooling

The median education level in 1993 for Blacks was approximately 6 years while the White median was approximately 12 years of education



Divided Society - Schooling

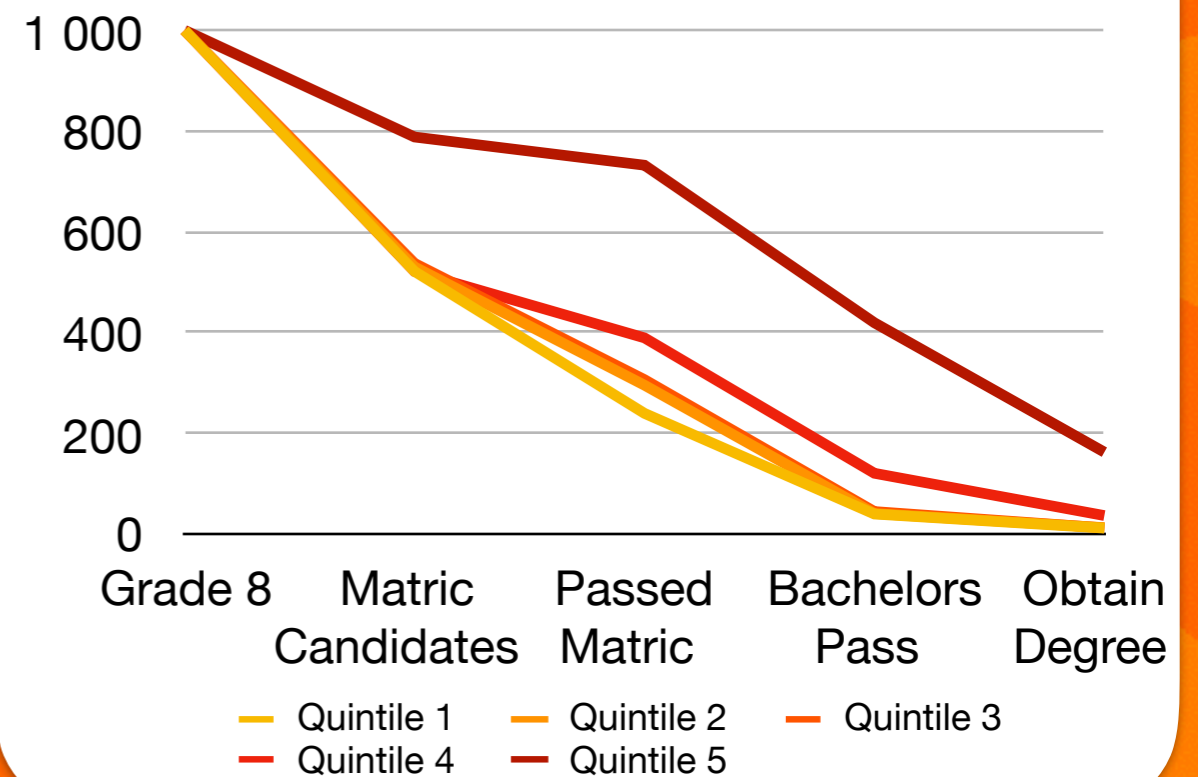


Worst performers
in historically White
schools and the
best performers
in historically Black
schools perform at
similar levels

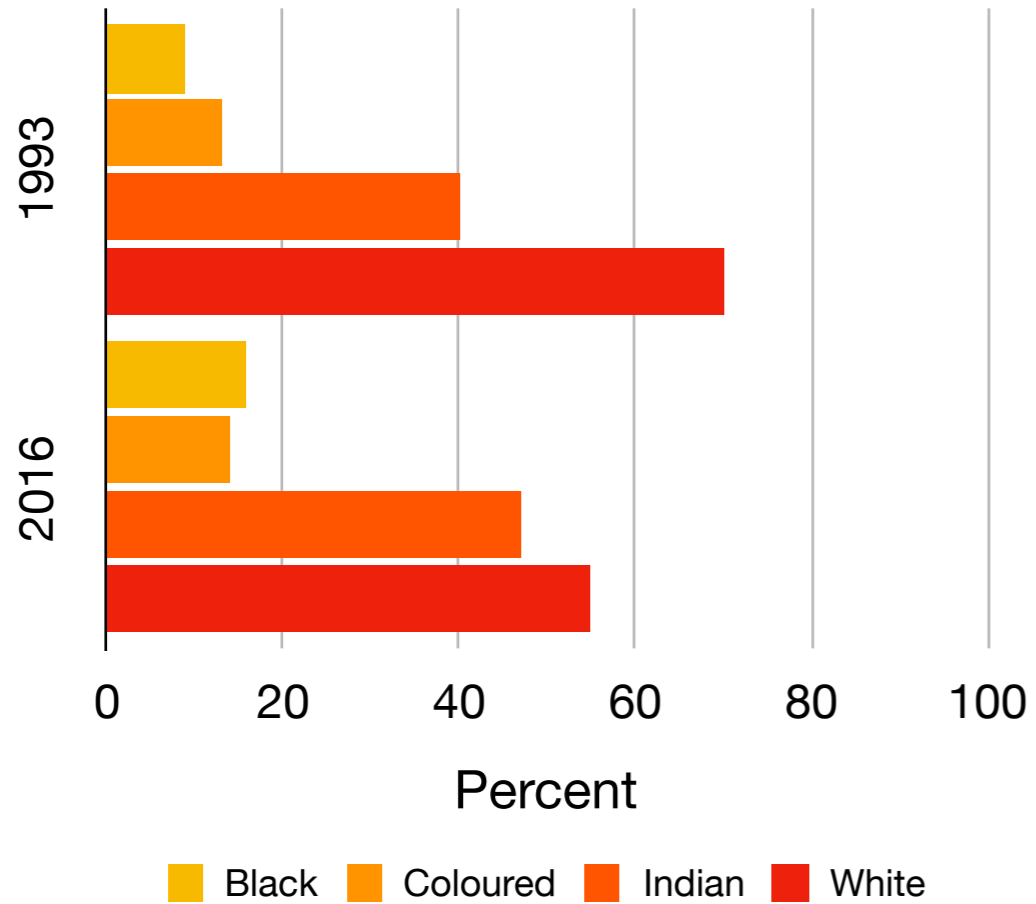
Divided Society - Schooling

While 42% of the quintile 5 entrants into high school will earn a Bachelor's pass, only 4% of quintile 1 learners will do so

Pass rates by race and grade (2008 to 2014)



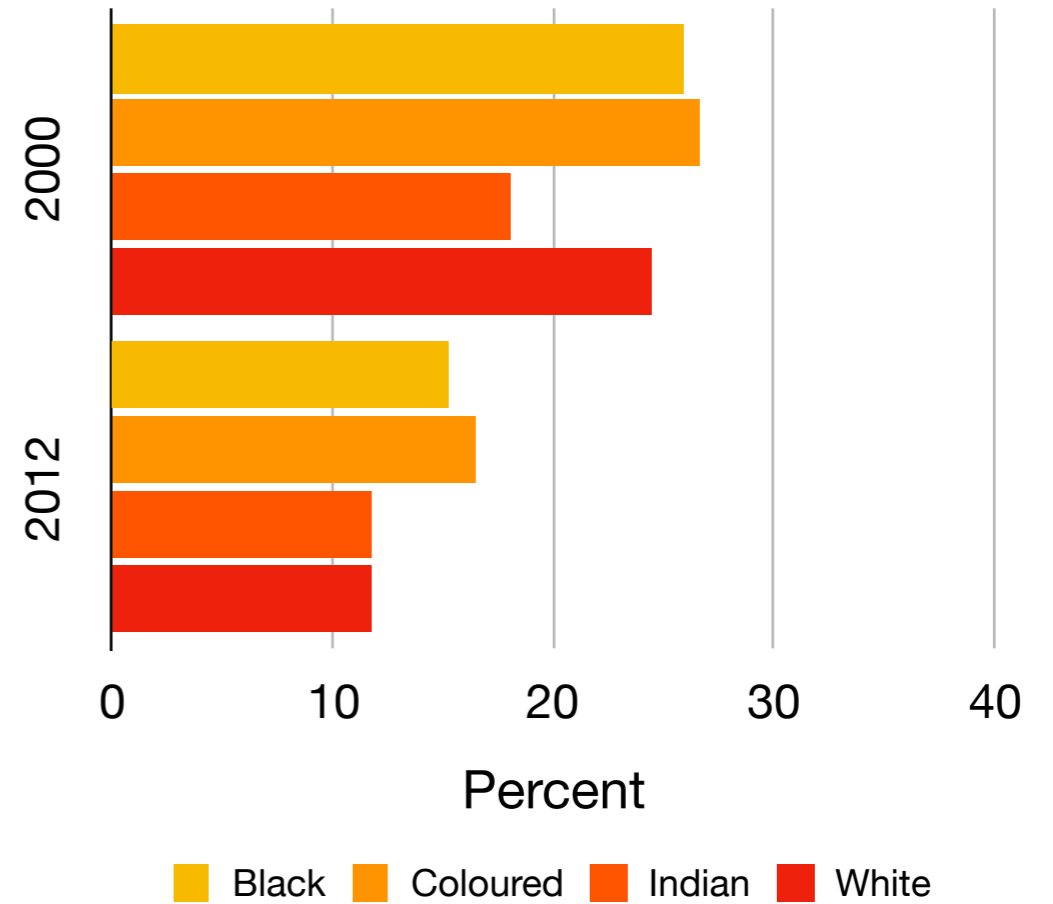
Divided Society - University Education



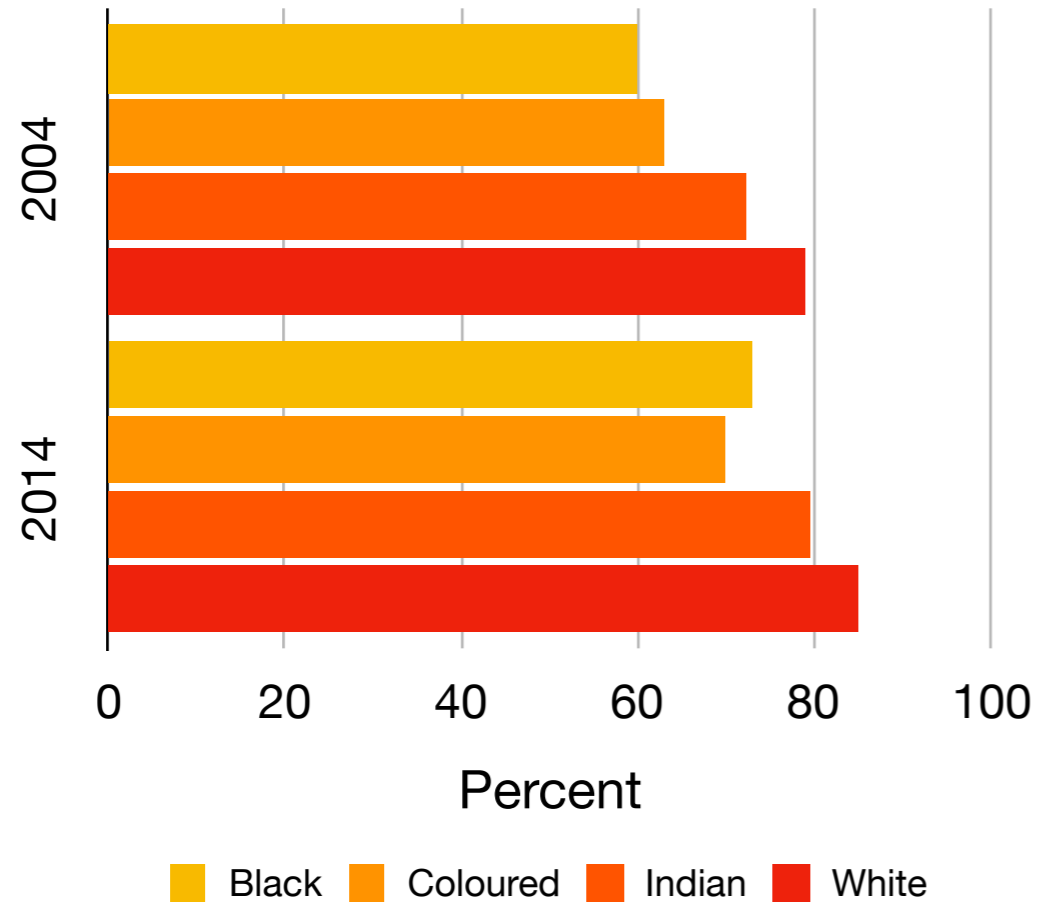
Participation rates 1993 and 2016

Divided Society - University Education

Drop out rate 2000 and 2012



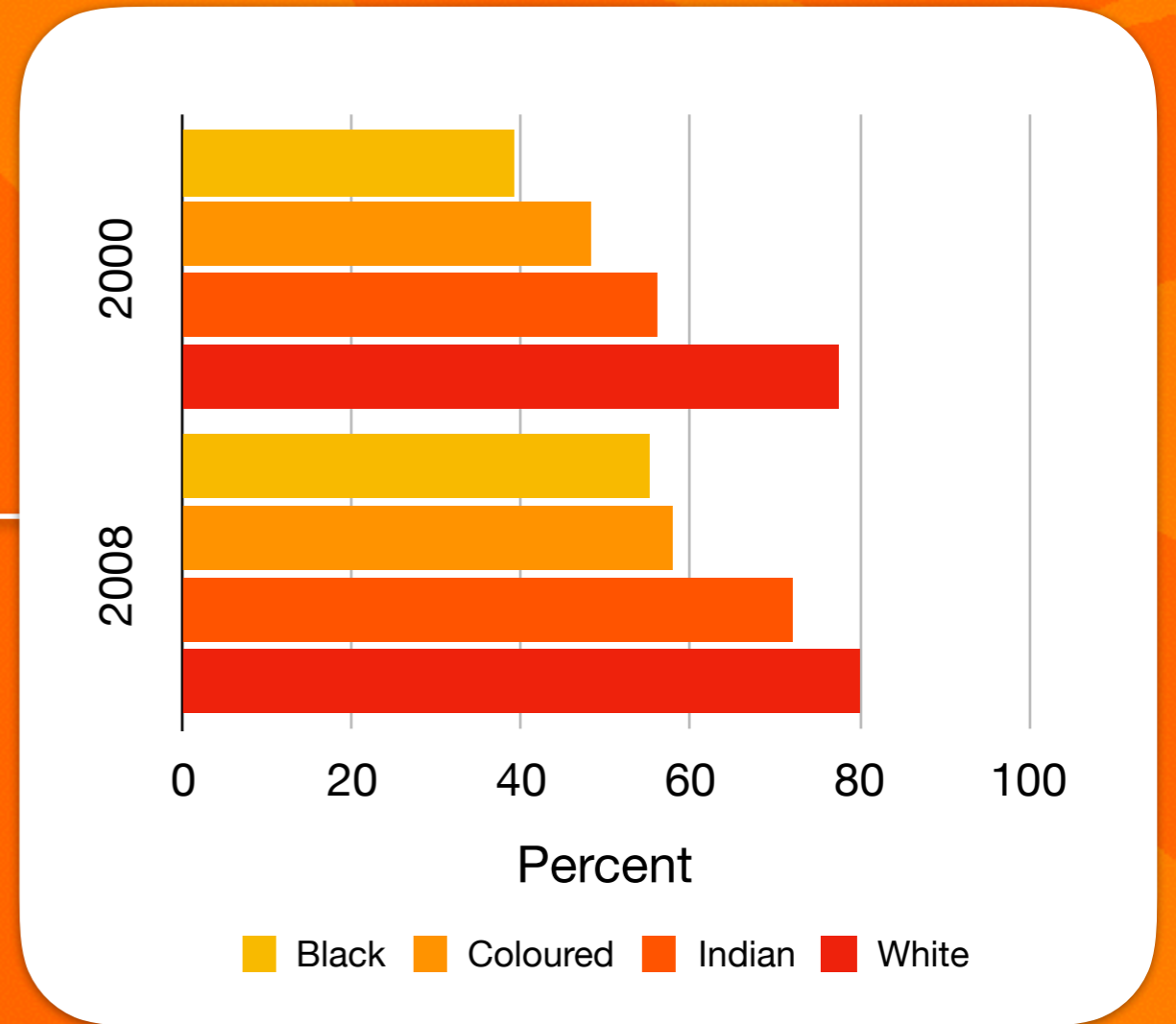
Divided Society - University Education



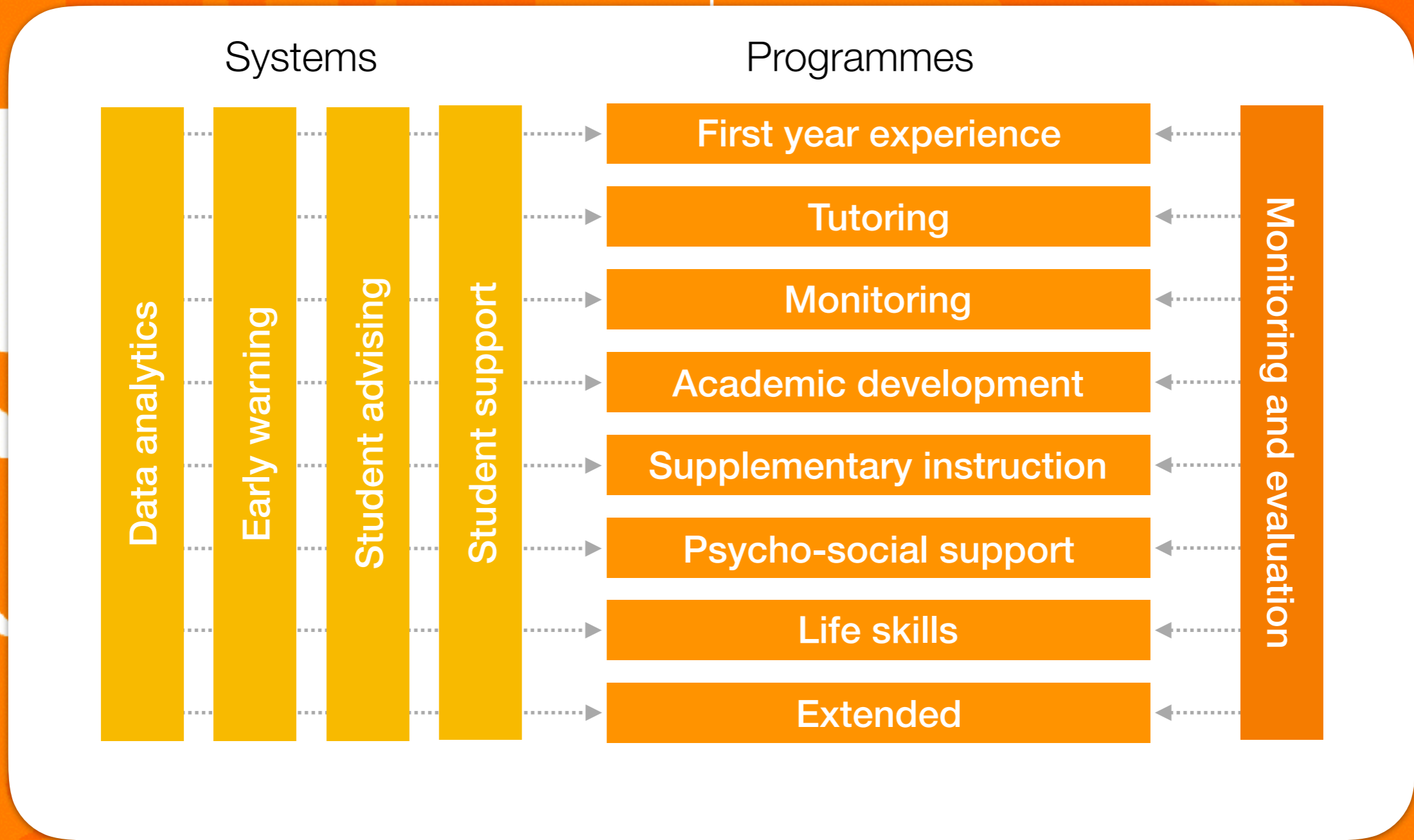
Success rate 2004 and 2014

Divided Society - University Education

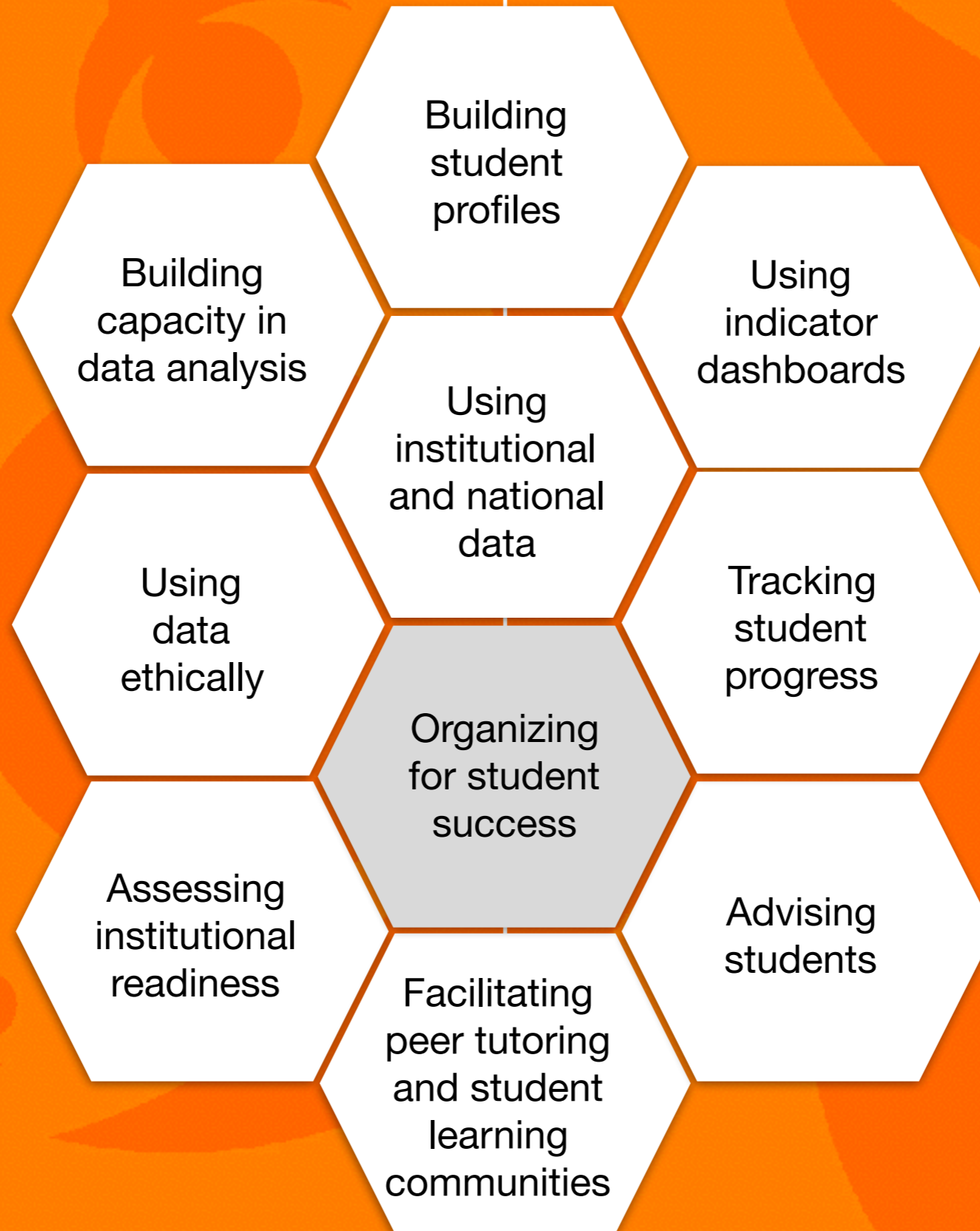
Throughput rate after 6 years



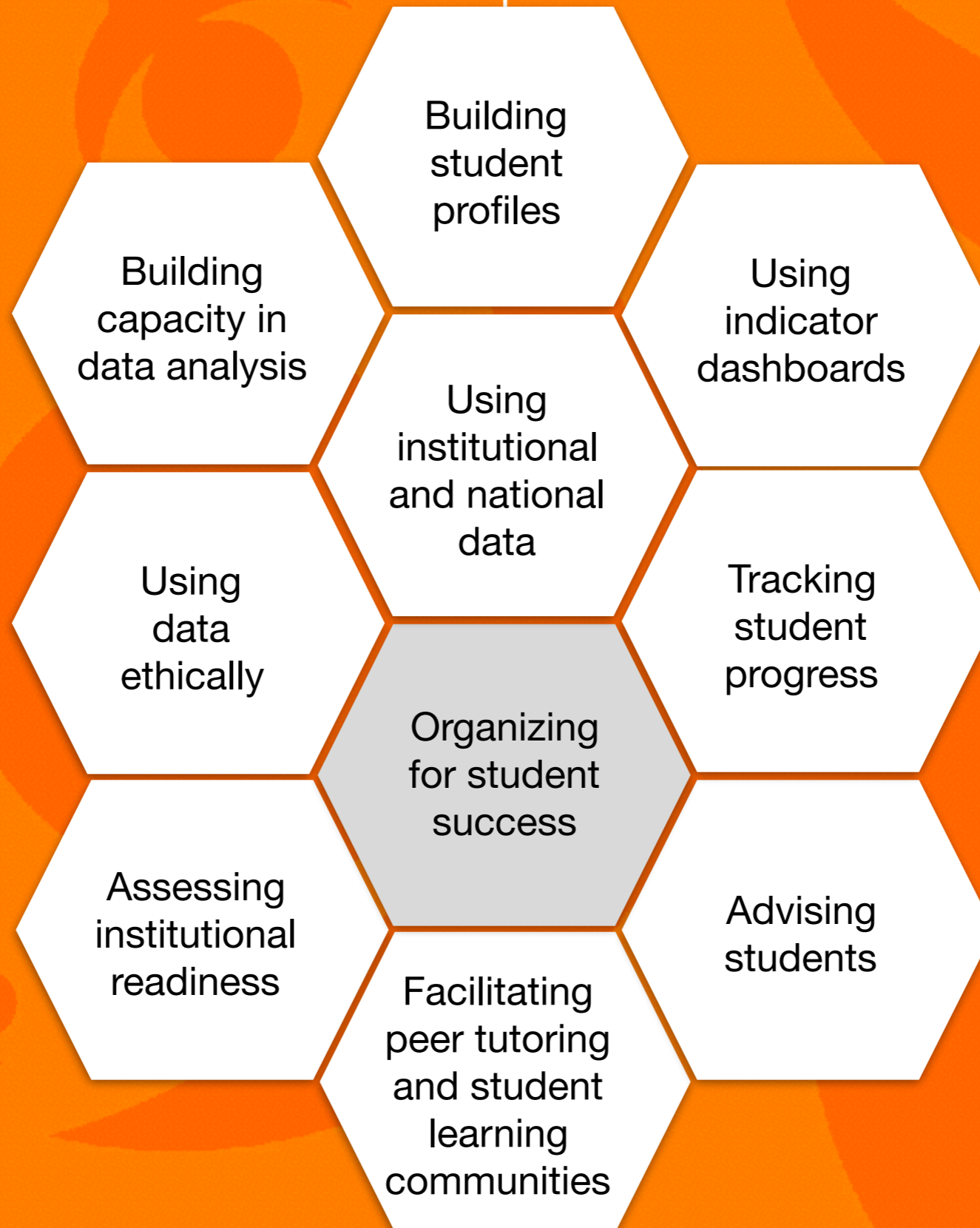
Capacity Development Grant



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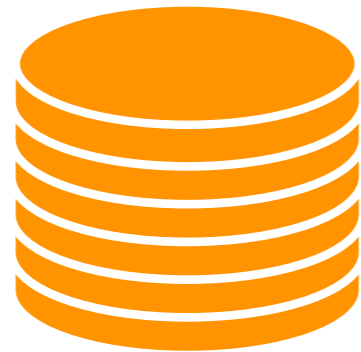
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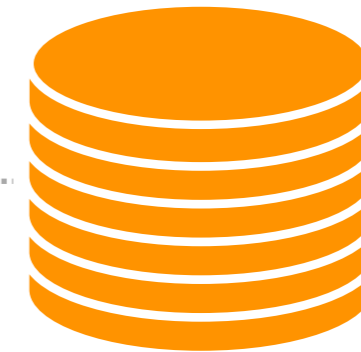
Dashboards and Bayesian modelling

South African School Administration
and Management System

Institutional Student Background
Questionnaire for all Faculties

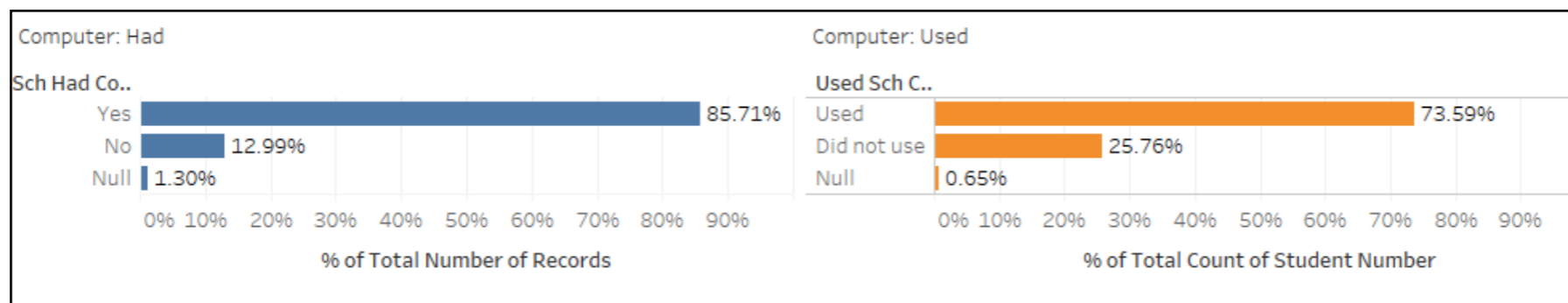


Integrated dataset



Classic cohort and throughput analysis
supplemented with Bayesian Models

- Bayesian model:
 - Knowledge base (information)
 - Inference engine (logical rules)
- System can answer questions “Which students are more likely to remain in the system after minimum graduation time plus two years?”



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Dashboards and Bayesian modelling

- Objectives
 - Understand students' home and school backgrounds
 - Identify appropriate interventions for individual students
 - Develop student success dashboards for university stakeholders
- Comprehensive data on each student's background
 - Informs reporting to University Management Structures
 - Supports University planning
 - Supports decision making by Deans and Lecturers, Faculty Student Success Coordinators and Dean of Student Affairs
 - Directs students to appropriate support programmes
 - Motivate faculties to focus on initiatives to improve throughput rates

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Dashboards and Bayesian modelling

- Policy developments
 - Registration processes
 - University planning
 - Student Success Steering Committee
- Support programmes
 - Early warning system
 - Interventions redesign
 - Counselling services realignment
 - Triple-Offer including academic choice, financial support and accommodation
 - Impact monitoring with respect to changing courses and completion times with respect to funding, gender and race

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Building

Questions and comments.

05:00

learning
communities

RADAR - Background

The screenshot displays a user interface for a student profile. At the top, there are navigation icons for 'Class List', 'Comment', 'Email', 'Student', and 'Biography'. The student's name 'Mr Test Student' is shown next to a blue profile picture placeholder. Below the name is a table titled 'LLB Extended Program' with columns for 'Code', 'Module name', 'Average', and 'Status'. The table is divided into 'SEMESTER 1' and 'SEMESTER 2'. A 'Comments' box is visible on the right side of the table. On the left, a 'KPI's' section contains two questions with 'Yes' or 'No' options.

Code	Module name	Average	Status
SEMESTER 1			
JUB411	CIVIL PROCEDURE	70	😊
JLD311	LAW OF DELICT	41	😐
JLQ311	SPECIFIC CONTRACTS A	58	😊
JLQ314	SPECIFIC CONTRACTS B	50	😊
JMB311	BUSINESS ENTITIES LAW (repeat)	70	😊
SEMESTER 2			
JCL411	CONSUMER PROTECTION AND CREDIT LAW	0	?

KPI's

Home language differs from language of instruction: No

Was the student admitted for their first choice?: Yes

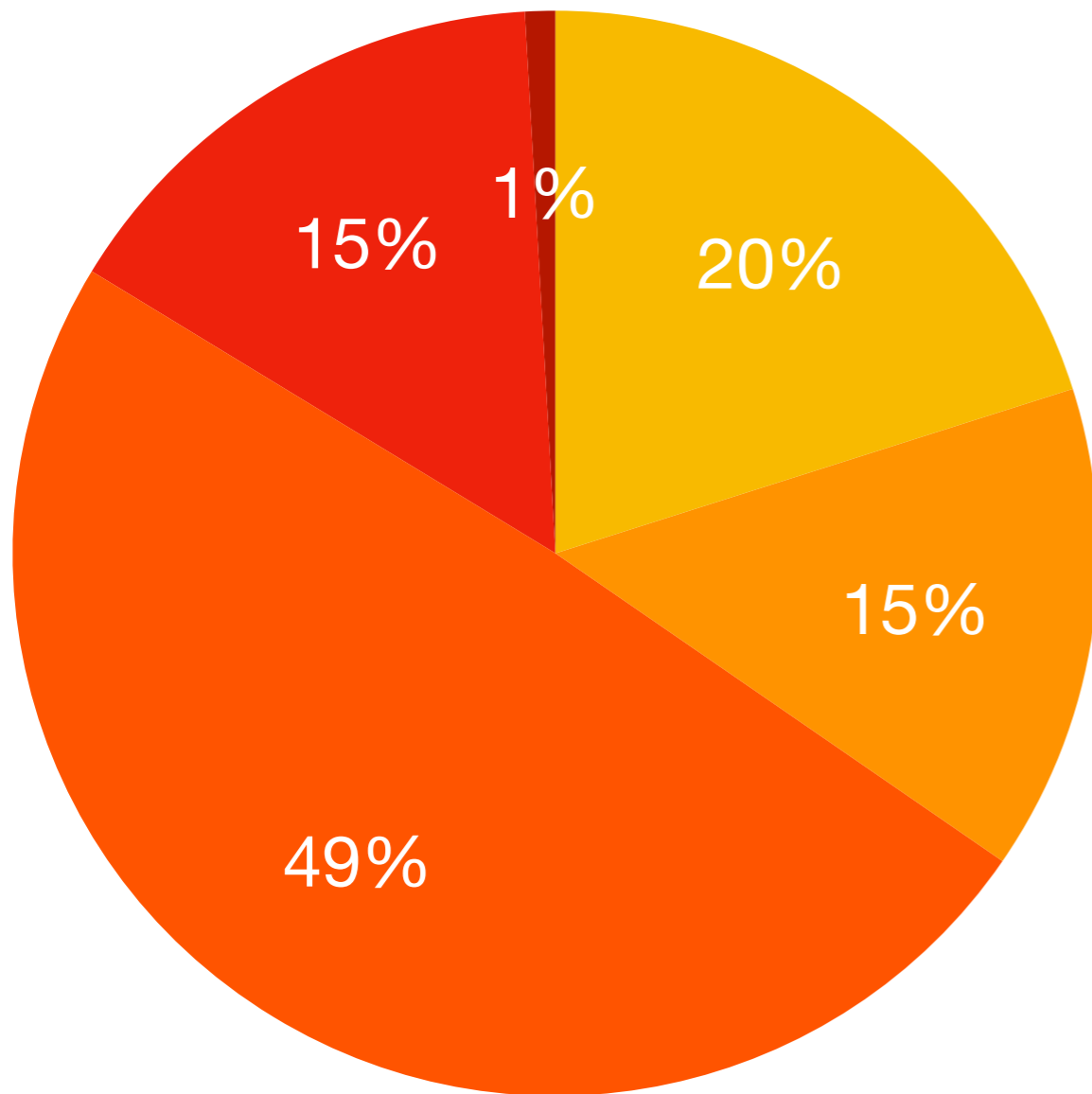
- Monitors:
 - Student success indicators
 - Student progress
 - Take up of academic support and development opportunities
- Indicators:
 - Research
 - Student data analysis
 - “Just-in-time” tools and interventions

RADAR - Description

- Functionalities:
 - Integrated student email
 - Cohort tracking
 - Interventions drop-down list
 - Student key performance indicators
- Further developments:
 - Student dashboard
 - Student Support Services dashboards
- Data analytics system
- Linking RADAR to Student Counselling, Career and Development Centre:
 - Counselling services databases
 - Learning enhancement checklist
 - Screen capture of academic advisor notes
- KPI's per module, qualification and department
- Predictive capabilities

RADAR - Use of data

Class average 2016



- All the data, information and tools are available to identify at risk students, refer them to the correct support and monitor interventions
- Disparate datasets brought together in one central system

● Fail ● Examination entry ● Pass ● Excellent ● Exempt

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Questions and comments.

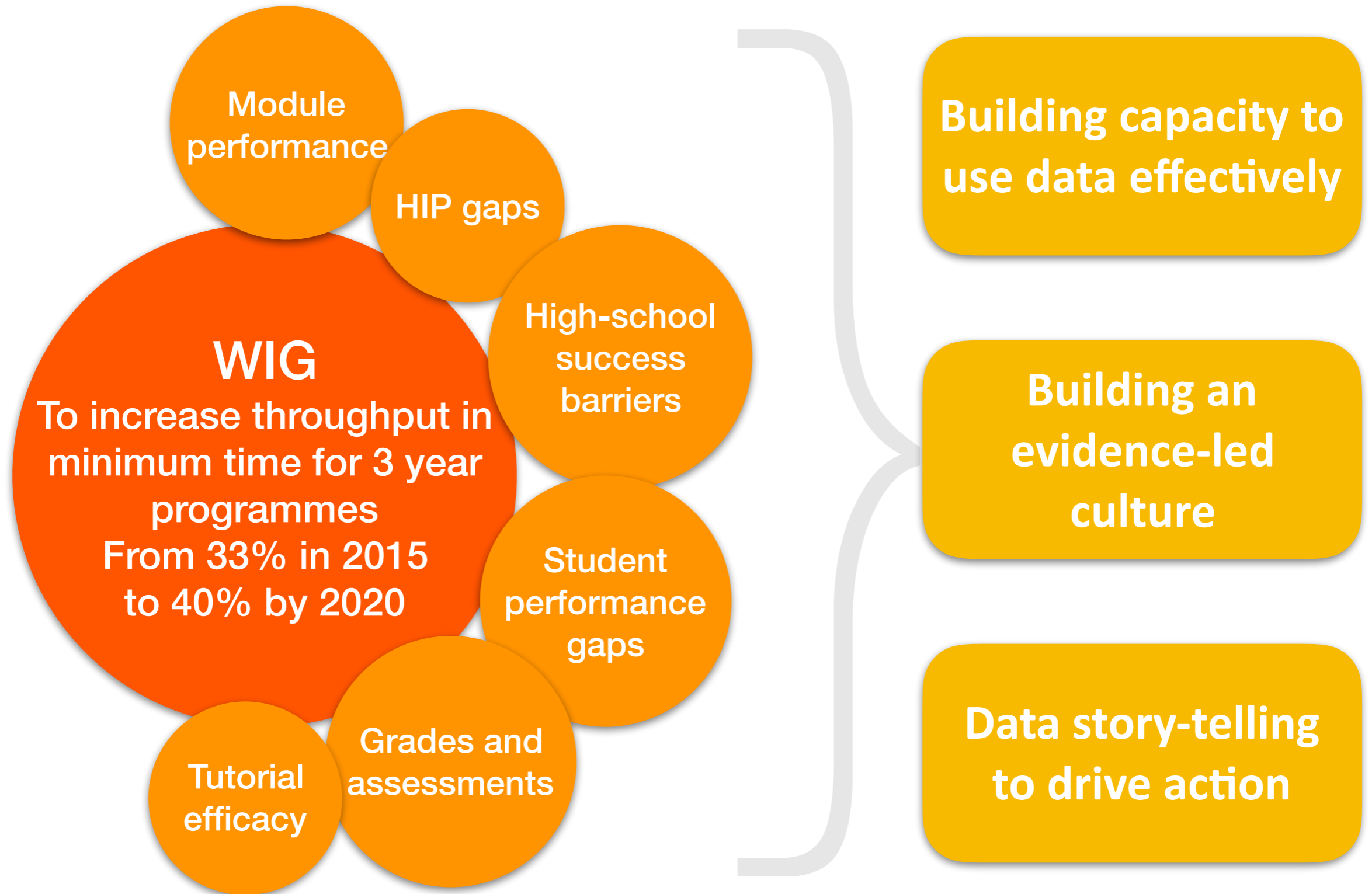
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The Data Jedi



How Data Enhanced the Project



Lessons Learnt

PLAN

“A journey of a thousand miles begins with one step.”

ACT

“If the mountain will not come to Mohammed, then Mohammed will go to the mountain.”

OBSERVE

“Elementary my dear Watson.”

REFLECT

“It takes a village to raise a child.”

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Questions and comments.

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Learning Communities - Concept

- High Impact Intervention: Peer learning and peer support
 - Systematic, sustainable and impactful
-
- SASSE 2014 data: 69% of first years and 68% of senior students reported positively on the quality of peer learning, and not so positively on the quality of interactions with student support services and other administrative services
-
- The power of Peer Learning and Peer Support



Learning Communities - Participation

- Economic and Management Sciences
- Engineering
- Natural and Agricultural Sciences

-
- Education
 - Humanities

-
- Health

- 106 first semester
- 59 added after appeals
- 17 of the 59 passed with no second appeal
- Learning Communities 2017 registrations
 - First years: 1024
 - Seniors: 321
 - Total: 1345



Learning Communities - In Process

- Refine support
- Level the playing field
- Track participants progress
- Create lasting support networks into senior years
- Understand the needs of financially needy day students
- Refine data analytics for the level of support required
- Compilation of success stories



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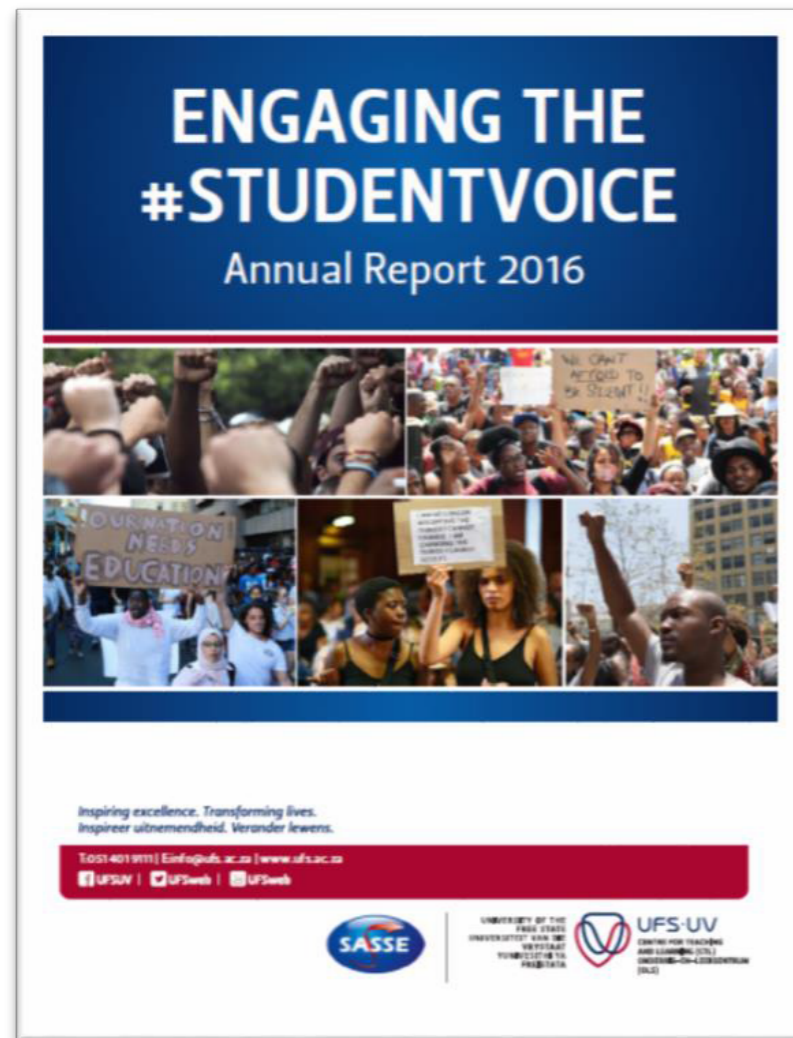
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Academic Advising - Context



- **15%** of participating students **never worry** about how they are going to pay for **day-to-day expenses**
- **18%** of participating students never worry about how they are going to **pay university fees**
- **69%** indicated that they **ran out of food** without being able to buy more
- **29%** of **first-generation students** ran out of food compared to **12%** of non **first-generation students**

Academic Advising - Defining

- Questions
 - What is the national **understanding** of academic advising?
 - What are **practices** informing academic advising?
 - What **training and development opportunities** exist to advance the field of academic advising?
- Definition

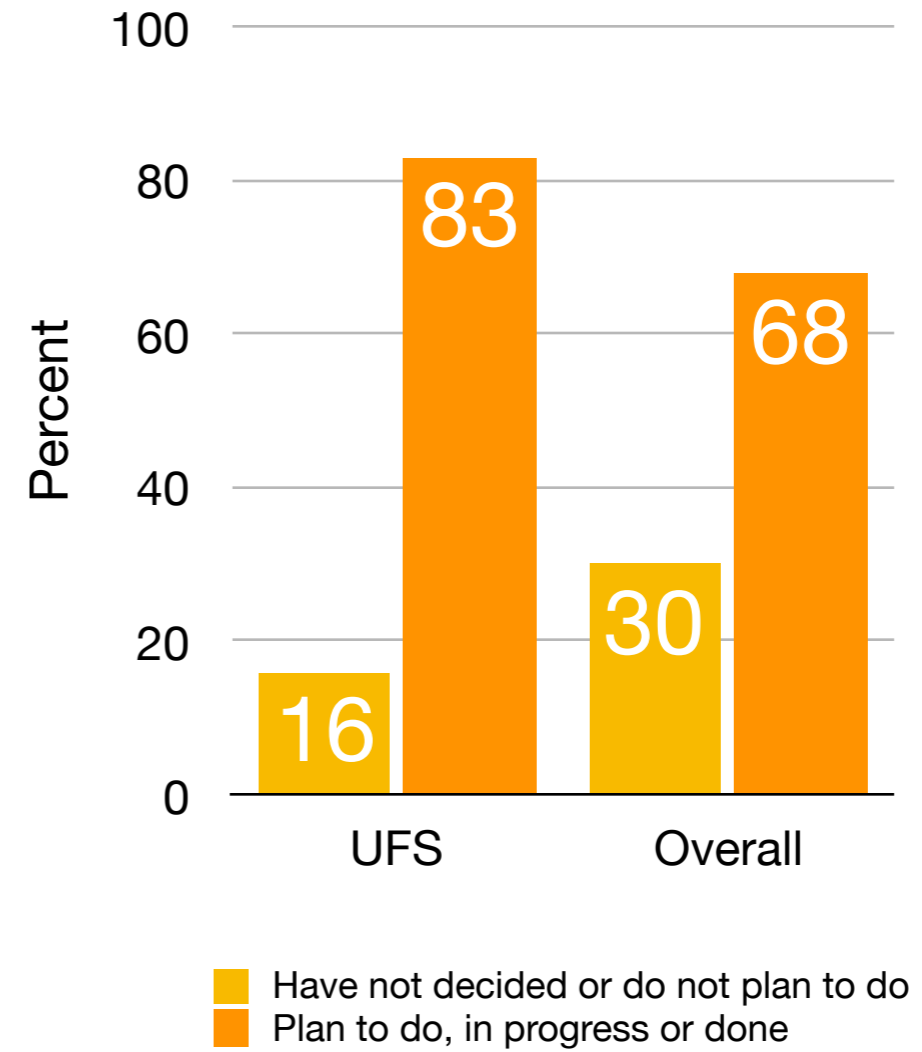
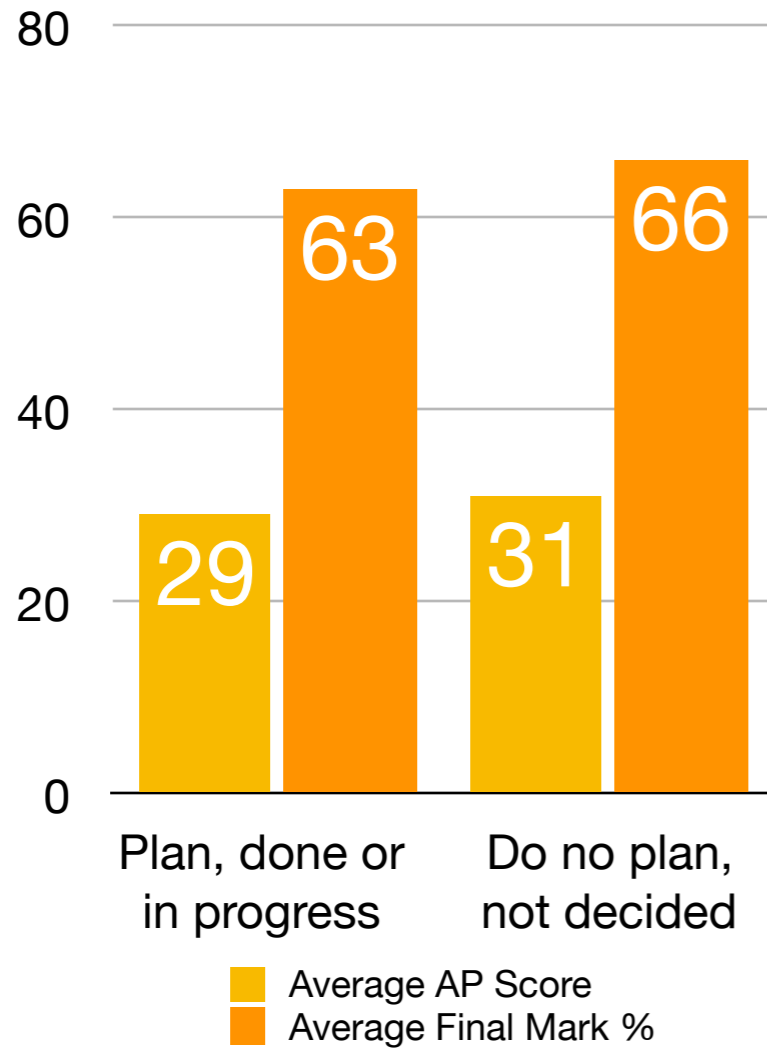
Academic advising is an ongoing and **intentional teaching and learning practice** that empowers the student in their learning and development process to explore and align their personal, academic and career goals. As a **shared responsibility** between the advisor and advisee, advising aims to **maximise the students' potential** by facilitating a conceptual understanding, **sharing relevant information** and **developing a relationship** focused on promoting academic success. The envisaged result is that students have a **meaningful academic experience** while in higher education and feel a **sense of belonging** to the institution.

Academic Advising - Practices

- Advising during student recruitment (i.e. Marketing)
- Advising during annual registration (i.e. curriculum conversation)
- First-Year Orientation/First Year Experience (Seminar)
- Peers as advisors (e.g. Tutors/mentors/residence committees)
- Advising as a collaborative practice (advising network/referrals/student counselling)
- Database and monitoring/evaluation

Siyaphumelela Advising Workstream, 2017

Academic Advising - Impact



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Questions and comments.

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Attending Achieving the Dream supported South African Institutions to:

- Experiment with various **types of data analyses** and build capacity to enable **inter-university collaboration**
- Create **early-warning dashboards** to support student success
- Develop a clear understanding of **changes in institutions** to support student success through the use of **Jedi Data** coaches and the use of the **learning communities** concept
- Create a **new category** of support staff in higher education – **student advisors**
- Introduce **data-based decision-making** practices

and student
learning
communities



Thank you