
SUB-REPORT:
Terms used in the bursary support sector
When measuring academic outcomes:
Towards developing common usage / definitions



Penny Morrell
with a working group of the National Bursary Support Providers Forum

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THIS SUB-REPORT

This report is one of the products of a two-year research project which set out to discover what difference bursary support providers (BSPs) may make to student success at universities – and what their (unique) contributions to this might be.

Funded by the DG Murray Trust and commissioned by the Rural Education Access Programme (REAP), the project was carried out in active close collaboration with members of the National Bursary Support Providers Forum (NBSPF), a network of about 25 organisations which support university students in South Africa.

Given that the research question was about what difference the BSP organisations may be making to student outcomes (success), considerable detailed work on measurement was undertaken – especially the measurement of academic outcomes.

In the past decade, the focus in the higher education sector has shifted from access to success – foregrounding the measurement of throughput and, in some instances, progression rates. Organisations in the sector had hoped to be able to compare their outcomes with one another and to national statistics – to show that the extra support makes a difference to academic success. In order to do so, a common way of measuring academic outcomes (referenced to national measures where this was possible) was developed for use within the sector – in the process revealing that these had been defined differently within and beyond the sector.

This detailed report provides definitions of a range of terms including ‘cohort’, ‘proceed/progress’, ‘year-on-year progression rate’, ‘organisational success rate’, ‘throughput’, ‘failure rate’, ‘dropout’ – as well as how time to completion is counted in the case of course changes, extended curricula etc. It also problematises the ability to compare academic outcomes, given the range of variables in how cohorts are selected/constructed which includes accessing datasets – both organisational and national – that are sufficiently comparable.

Two other sub-reports address academic outcomes

- Guidelines for organisations compiling selected retrospective stats: throughput, time to completion and year-on-year progression rates Nov 2021
- Academic outcomes of students supported by four bursary support provider organisations Oct 2021

Access to the reports

These sub-reports, along with the full research report and a shorter version comprising the executive summary and findings, are posted on the REAP and NBSPF websites at

<https://www.reap.org.za/pages/reports.html>

<https://nationalbursaryforum.org.za/resource-portal/>

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INTRODUCTION

The purpose of this document is to provide a common understanding of how to measure and calculate the progress and outcomes of students supported by bursary organisations who are members of the National Bursary Support Providers Forum (NBSPF) – a civil society network of 21 organisations providing holistic support to students from resource-poor households in higher education. The intention is that member organisations are able to compare outcomes with one another, confident that factors are being counted and weighed similarly within the sector.

The document was developed collaboratively within the sector. We examined various current usages and reached agreement on the way terms would be commonly used - as well as what might, or might not, be included in the calculations.

This work was done with little reference to external uses by public entities such as the Council for Higher Education (CHE), DHET or NSFAS, as the sense has been that terms get used differently by various bodies - and certainly that statistics are not consistently calculated.

In order that these terms – and the related stats – can be compared with others from outside of the Forum/sector, however, a second phase of development was undertaken. This comprised attempting to align the naming of our terms to those used by CHE, DHET and NSFAS, where some common meanings exist among them – and certainly removing overt contradictions, where these occur. The intention is that this will obviate confusion, as well as allow for easier comparisons with national statistics.

To date the CHE's *Vital Statistics* has been the most forthcoming. At the time of finalising this document we are still trying to source definitions used by DHET and NSFAS.

ACRONYMS and TERMS

AYOS	academic year of study
CHE	Council for Higher Education
DHET	Department of Higher Education & Training
ECP	Extended Curriculum Programme ¹
IST	In-service training
n	regulation time for a qualification
NBSPF	National Bursary Support Providers Forum
NSFAS	National Student Financial Aid Scheme

¹ Per Ian Scott.

In the South African higher education system:

- the 'academic year of study' (AYOS) is the academic level at which a student is studying – not the number of years a student has spent studying;
- a 'course' is defined as a formal unit of study (like a module), while
- a 'programme' is a combination of courses which must lead to a qualification.²

And the CHE defines a 'qualification' as:

- 'the certificate, diploma or degree which an institution awards to a student on the successful completion of an accredited programme of study of 120 credits or more'.³

In order to avoid confusion between the way in which the NBSPF sector and the country's higher education system uses terms, in this document we have changed

- the sector's use of 'programme', replacing it with 'project' or 'organisation'; and
- the sector's use of 'course' has been changed to 'programme'.

GENERAL POINTS

In this document, these formulations apply only to undergraduate students and not to postgraduates (including those doing Honours) as the factors to be counted differ. (The exception is where an undergraduate degree includes the equivalent of an Honours in order to graduate, like the B.Bus.Sc.).

The assumption is that results are calculated and reported annually, despite some courses being semesterised. As such, a year could comprise results for two semesters.

What is counted

Units of counting

Two denominators will be used in this document to ensure that we are counting the same things:

- the **individual student** - identifiable by their ID / passport number; and
- **instances of studying** - comprising discrete, non-related programmes of study.

So, for instance, one individual student could have had two instances of studying if they changed to an unrelated programme – such that 210 students may have undertaken 223 instances of studying. (And if they undertake postgraduate studies, these might be a third and fourth instance of studying.)

² Per Ian Scott.

³ Council for Higher Education (CHE). 2019. *Vital Statistics 2017*.

Describing the indicators

One of the main problems with statistics – and comparing one set against another – is what is included in the dataset being counted. In addition, terms like ‘cohort’ or ‘throughput’ need to have shared meanings. Providing notes about what is being counted, as prominently as possible, is therefore always important.

Notes could include clarifying the following, among others:

- what defines **the group being reported on** (i.e. the year they began studying or the year they began being supported by the organisation);
- **at what stage of their university programme** students are recruited. (If in first year, there is a higher risk of dropouts and programme changes than if students are recruited later in their degrees, presumably once they are more settled);
- **the duration** (and difficulty) of their programmes – e.g. a general humanities degree is at least three years, a medical degree is six; there is a higher dropout rate in engineering than in humanities degrees etc.

Proportions

It is self-evident that when proportions are mentioned, the two parts being compared must be named – but this is often not done. One often reads something like ‘There was 63% throughput’ but the report does not say 63% of what.

If 63 students graduate from a cohort of 100 students, of what do the ‘cohort’ and the 63 students comprise?

- Does the 100 **INCLUDE** all those who dropped out (failed, ill-health), who may have changed programme, left for other funders or changed institutions – or does it only include those who were in their final year that year?
- And does the 63 only include those who graduated while still funded by your organisation - or might it include those that you no longer support but who have nonetheless graduated?

Whatever is counted needs to be named and defined.

Suitable time periods

The other factor to be considered is what time period is being used in developing a rate. This could be

- each year;
- year-on-year; and/or
- a final assessment of a group (constituted either on the basis of when they started studying or when they began to be supported by the organisation); and
- at ‘organisational level’ – i.e. a description of the outcomes of all students the bursary organisation has ever supported.

Comparisons

Comparisons of outcomes across organisations are necessarily not simply comparable given the number of variables at play, including that organisations recruit students during anything from 1st year to later years.

Proposals: what we will count and what we will call them

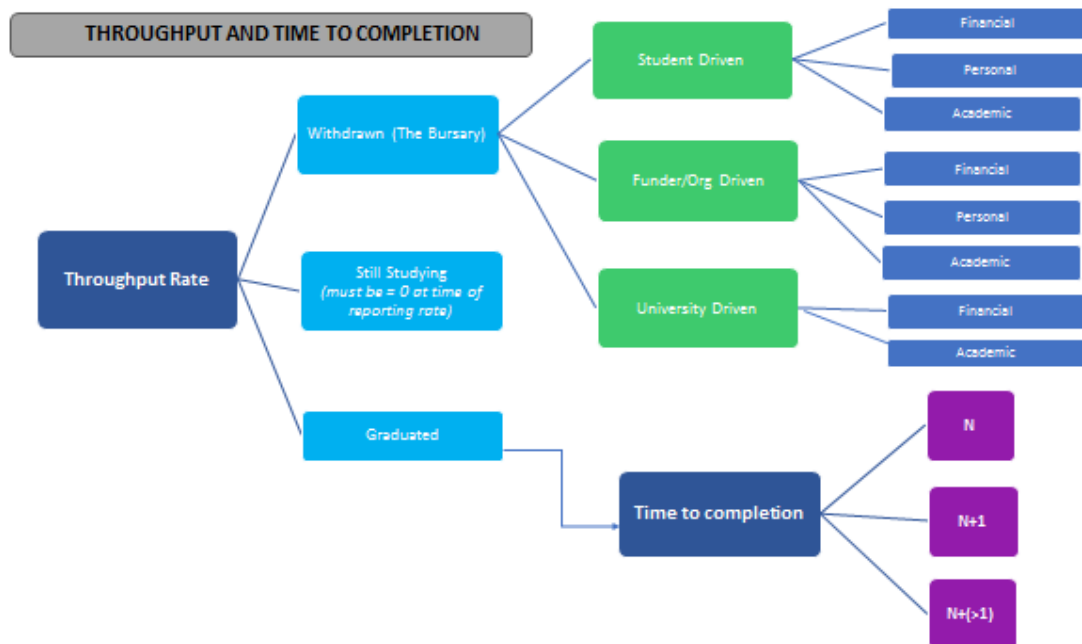
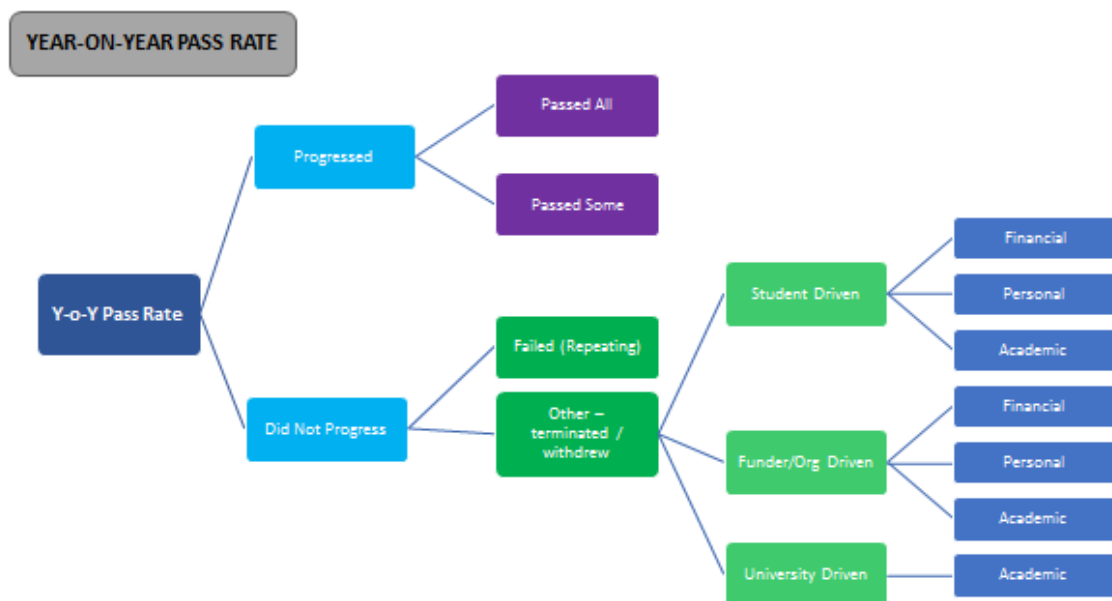
Bearing in mind the importance of naming what is being counted, the following questions can be addressed through the terms in this document.

(Those ‘terms that have been used’ are internal to the Forum. The purpose is to direct readers to the new terms that replace those they may have been using.)

Our question	Proposed common term	Terms that have been used
How many – what proportion of - students were successful / passed / progressed in any given year?	Year-on-year progression rate (p11)	<ul style="list-style-type: none"> • year-on-year pass rate • success rate
How many students from a particular grouping graduated?	Throughput (p12)	<ul style="list-style-type: none"> • completion rate • success rate
What impact did we have on the students we supported (even if only for part of their qualification)	Throughput (p12)	
What were the outcomes of students who started studying in a particular year – whether they were still supported by the org or not?	Cohort (longitudinal) study (p13)	Cohort study
What were the outcomes of all the students we’ve ever supported	Organisational success rate (p12)	Graduation rate
How have ‘our’ students done in relation to [field of study].	Throughput (p12)	
What is the return on investment? (These are the student stats – but they are only part of this calculation.)	Throughput (p12) – plus analysis of time to completion (p14)	

Logical maps:

where terms are used and how they relate to one another



GROUPING STUDENTS

Start year

Definition	The year a student started their current programme, including related programme changes.					
Time period	x	year-on-year	x	final assessment		org level
Elaboration	<p>This focuses on the student, not on the organisation’s relationship with the student (which may be only part of their academic path). This is the year ‘n’ begins to be counted.</p> <p>If a student changes programme within a related field (and may carry over some credits), the start year is from the beginning of the original programme and it comprises one ‘instance’ of study.</p> <p>If a student changes programme to an unrelated, entirely different field (and does not carry over any credits), the start year is from the beginning of the new programme. In this case these two (the first option and the new choice) are counted as two separate ‘instances’.</p> <p>In identifying programme changes:</p> <ul style="list-style-type: none"> • if the student failed their first option and then changed programmes, this could be described as a ‘dropout’ – even if within the same field; • if the student passed their first option and then changed, this could be regarded as a ‘programme change’. 					
Use	The start year is the basis on which the completion time is calculated – i.e. how long the student takes to complete their degree. (See ‘n’, ‘n+1’ below.)					

Cohort

The CHE defines a cohort as:

“The first-time entry students in a given year who have enrolled for a particular higher education programme.”⁴

Our proposed amended version is:

A group of students constituted by the given year in which they enrolled for a particular higher education programme.

A ‘cohort study’, then, is what the sector calls a ‘longitudinal study’ (see below).

⁴ Council for Higher Education (CHE). 2019. *Vital statistics 2017*.

Award cohort

The issue is *what* the student started doing in order to be grouped with others. Did they start

- studying at university (called ‘cohorts’ as above); or
- being supported by the bursary organisation (as below)?

While some organisations in the NBSPP simply refer (internally) to groups of students who started together as ‘cohorts’, this needs to be additionally defined so it is not confused with the external use of this term, as above.

Many organisations in the NBSPP have used ‘cohort’ in relation to the year in which they started supporting the students. As some organisations recruit students once they have already started studying, their cohorts do not comprise students on the basis of the year they started studying, as in the definition above.

The term ‘award cohorts’ will be used for groups of students constituted on the basis of the year in which they started being supported by an organisation in the sector. This should obviate any confusion.

Definition	A group of students defined by the year in which they became beneficiaries of the bursary support organisation – no matter their year of academic study.					
Time period	x	year-on-year	x	final assessment	x	org level
Elaboration	As they may only have become a beneficiary after their first year of studying, this is not necessarily the year the student started studying (their ‘start year’). For organisations who only take students from the first year of studying, however, the start year and the year of becoming a beneficiary is the same.					
Use	An award cohort is suitable for assessing and reporting on the impact the organisation might have had on a group of students, given that it only covers the time they were supported, and could reasonably have been influenced, by the organisation. An award cohort could be used to compare the organisation’s outcomes with institutional or national outcomes. (It is not useful for longitudinal outcomes of individual students, however, unless the organisation recruits all its students from the beginning of their first years.)					

SUCCESS – ONGOING AND ULTIMATE

Proceed / progress

Definition	This is the activity of students moving from one academic year to the next – no matter if they are carrying courses or not.					
Time period	x	year-on-year	x	final assessment	x	org level
Elaboration						
Use						

Year-on-year progression rate

Definition	<p>The proportion of all students who are being supported by an organisation who pass sufficient courses to progress to the next academic year – whether or not they are carrying modules.</p> <p>The progression rate includes students who graduate.</p> <p>It is expressed as a simple percentage of all who started each year.</p>					
Time period	x	year-on-year		final assessment		org level
Elaboration	<p>The progression rate is a proportion of all students – not just those who wrote exams (which is how DHET sometimes uses it.)</p> <p>It can also include students on in-service training (IST) who progress. (If in doubt, an organisation can use the outcome printed on the university results.)</p> <p>If a student has a deferred exam – which makes it unclear as to whether or not they are progressing – this should be noted as a separate category.</p> <p>The progression rate does not have a relationship with ‘n’ – nor is it concerned with whether or not the duration of their studies is extended.</p> <p>(This more inclusive term replaces</p> <ul style="list-style-type: none"> • ‘year-on-year pass rate’ which was used differently by various organisations to mean passing all courses/modules or passing some but still progressing. • ‘success rate’ which was too inclusive and non-specific to be useful.) 					

Use	<p>This is an important monitoring indicator for organisations to implement early warning systems which enable them to adjust their activities according to need.</p> <p>It can also be used to benchmark a group of students' outcomes against their peers in the same field and/or year - if the same factors are being counted.</p> <p>The year-on-year progression rate can be used to indicate the difference (impact) an organisation is making to their students in any calendar year.</p>
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Organisational success rate

Definition	<p>The organisational success rate measures the outcomes of all students who an organisation has ever supported, comprising</p> <ul style="list-style-type: none"> • the proportion who completed, while still being supported by the organisation; and • the proportion who the organisation no longer supported as the organisation excluded them for academic or personal reasons; and • the proportion who the organisation no longer supported as the student withdrew from their support for any of a range of reasons. <p>This is the overall results of the project.</p>						
Time period	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;">year-on-year</td> <td style="width: 25%;"></td> <td style="width: 25%;">final assessment</td> <td style="width: 5%; text-align: center;">x</td> <td style="width: 10%;">org level</td> </tr> </table>		year-on-year		final assessment	x	org level
	year-on-year		final assessment	x	org level		
Elaboration	<p>Students who are still studying are omitted.</p> <p>Only students who have graduated or who have dropped out /dropped off are counted. The reasons for dropping out / dropping off can be given in some detail.</p>						
Use							

Throughput

We will not adopt the CHE's definition of throughput rates (given alongside) as it has already included the CHE's chosen specifications - like 'first-time entry' and 'undergraduate' as well as 'the minimum time, or up to 2 years beyond the minimum time'.

We are looking for a base definition onto which we can each add our specifications.

The CHE's definition:

'The throughput rate calculates the number of first-time entry undergraduate students of a specific cohort of a specific year who have graduated either within the minimum time, or up to 2 years beyond the minimum time, COMPARED to the number of students in the baseline enrolments of that cohort.'

Generally, then ***throughput calculates the number of students who graduate within a particular group compared with the total number who were in the group when it was constituted.***

The NBSPF's specific use of the term is as follows:

Definition	The proportion of all students in an award cohort (the year they started being supported by an organisation) who graduated while still being supported by that organisation – no matter how long they took to do so.					
Time period	year-on-year	X	final assessment			org level
Elaboration	<p>Throughput can only be calculated once most students in that group or cohort have completed their (undergraduate) degree – i.e. after the minimum time of the longest (undergraduate) degree, plus a few years has passed.</p> <p>It is calculated as</p> <ul style="list-style-type: none"> • the number of people who graduated as a proportion of • everyone who started being supported in year X (e.g.100) less those who left for other funding (e.g. 10). <p>If 55 graduated the throughput is 55 / 90. (The 35 who did not complete - for whatever reason - are included in the calculation.)</p> <p>An analysis can be given of</p> <ul style="list-style-type: none"> • completion times (graduated in 'n', 'n+1', 'n+2' etc); as well as of • those who dropped out (giving the range of reasons). 					
Use	<p>This is important information about success - both for the organisation and for the funders.</p> <p>Throughput is often used as a means of comparison between data sets – but the variables are often not declared, which undermines the comparisons.</p>					

Cohort (longitudinal) studies

Definition	Cohort – or longitudinal studies – as undertaken in the sector focus on ultimate student outcomes of their undergraduate studies. They comprise tracking all students who started <u>studying in a given year</u> and who had been supported by an organisation – no matter for how long; they tell the students’ stories from academic year 1.					
Time period		year-on-year	x	final assessment	x	org level
Elaboration	<p>Longitudinal studies therefore include those who</p> <ul style="list-style-type: none"> • may have commenced their programme before being supported by the organisation; • did not complete a qualification at all; and • those who graduated while still being supported by the organisation; and • those who graduated but who withdrew from the organisation for positive reasons (e.g. other funding); and • those who graduated but who were not supported by the organisation till the end of their qualification as they withdrew their support for negative reasons (e.g. failed, behaviour etc); and • those who went on to postgraduate study. <p>The full period of their qualification may, but does not necessarily, overlap with the period during which the organisation supported them.</p>					
Use						

TIME TO COMPLETION

Time to completion

Definition	The number of years taken by a student to complete their programme. (It is not a proportion of anything.)					
Time period		year-on-year	x	final assessment	x	org level
Elaboration	<p>The rules for changing programmes above would apply – i.e. time to completion is only the time taken to complete the current programme (including one related to it), not a previous programme if not related to it.</p> <p>If a student takes a year off, only the years spent studying are counted as time towards completion.</p>					
Use	Completion times enable comparisons to be made with other student groupings in similar fields, institutions etc. This may speak to return on investment and efficiencies.					

Completed in 'n'

Definition	The number – or proportion – of students who complete their current programme in the (programme -specific) minimum recommended time – including any allowance for participation in an extended curriculum programme. This is the 'regulation time' as on the proof of registration.					
Time period		year-on-year	X	final assessment	x	org level
Elaboration	<p>Regulation time for an extended curriculum programme is not 'n+1', but 'n' e.g. 4 years for a standard 3-year programme.</p> <p>If a student changes programme, 'n' is identified as follows:</p> <ul style="list-style-type: none"> • If the new programme is in a similar field (especially if credits may be carried over) then 'n' is the minimum number of years of the new programme, but the years already spent are counted as spent towards it. • If the new programme is in an entirely different field (and credits cannot be carried over) then there are two 'n's': <ul style="list-style-type: none"> ○ the first 'n' is for the first programme and the student is recorded as having dropped out or changed programme - or completed the programme. ○ the second is a new 'n' for the second and unrelated programme. <p>That is, there are two instances of studying for one student.</p> <p>It is obviously important to include notes regarding programme changes.</p>					
Use	<p>Completion in 'n' can be used as the basis for costing a minimum support package.</p> <p>(It also aligns with the system used by DHET to calculate subsidy payments to universities.)</p>					

Completed in 'n+1'

Definition	The number – or proportion – of students who completed their current programme in one year more than the (programme-specific) minimum recommended time – including any allowance for the extended curriculum programme. A repeated year may comprise many or only a few modules / courses.					
Time period		year-on-year	x	final assessment	x	org level
Elaboration	It builds directly on the foundational meanings of 'n' (above).					
Use	Consider advocating for 'n+1' to be regarded as ordinary.					

COUNTING

Extended curriculum programme (ECP)

Definition	Where, at the outset of their programme, the university allocates a student an extra calendar year to complete the qualification.
Elaboration	While this adds one year to regulation completion time, the extra year is included in 'n'.
Use	

Discretionary extension

Definition	A discretionary extension is where, during a student's programme, an allowance is made (by the bursary support organisation, in consultation with the university) for a student to take an extra year to complete the qualification.
Elaboration	This adds one year to regulation completion time, so automatically becomes 'n+1'.
Use	

Programme (degree) change

Definition	A programme change is when a student changes their programme of study – either to a related or unrelated field.
Elaboration	<p>(As above under 'start year':</p> <p>If a student changes programme within a related field (and may carry over some credits), the start year is from the beginning of the original programme and it comprises one programme of study – or one 'instance'.</p> <p>If a student changes programme to an unrelated, entirely different field (and does not carry over any credits), the start year is from the beginning of the new programme and these two (the first option and the new choice) are counted as two separate 'instances'.</p> <p>In naming the programme changes:</p> <ul style="list-style-type: none">• if the student failed their first option and then changed programmes, this could be described as a 'dropout' – even if within the same field;• if the student passed their first option and then changed, this could be regarded as a 'programme change'.)
Use	

In-service training

Definition	A period of compulsory work experience which is a requirement of graduation. In-service training is also known as Work Integrated Learning or Co-operative Education.
Elaboration	The in-service training (IST) component is included in 'n'. Where there is a gap in time between the student's having completed their course work but not yet started the IST, the time is excluded in calculating time to completion.
Use	

DIFFICULTIES

Failure rate / repeat rate

Definition	This is about academic achievement, whereby the university does not allow a student to progress to the next academic year of study (AYOS), requiring them to remain in, and repeat, that academic year. This can be determined by a student's university transcript. It will add to the time that students take to complete their qualification.					
Time period	x	year-on-year	x	final assessment		org level
Elaboration	This does not include those who, fail a course but who are allowed to progress to the next academic year; fail enough courses to be excluded from the university on the basis of their failure (that is dropout').					
Use	In a final assessment this is used as a qualitative descriptor.					

Withdrawn

Definition	<p>This is the number of students whose support by the organisation ends (is 'withdrawn') in any calendar year.</p> <p>This could be either because</p> <ul style="list-style-type: none"> the organisation withdrew (stopped) their support given, e.g. poor academic or personal behaviour, among others (see 'dropout' below); or the student themselves withdrew - e.g. left university, obtained other funding (see 'dropoff' below). 					
Time period	x	year-on-year	x	final assessment	x	org level
Elaboration	<p>Organisation-led reasons for organisations withdrawing their support include:</p> <ul style="list-style-type: none"> poor academic results that do not meet requirements for continued support (by NSFAS, the organisation) although the university may not exclude them and they may continue to study; and/or behaviour that does not comply with the organisation's requirements. <p>Student-led reasons for students withdrawing from receiving support include:</p> <ul style="list-style-type: none"> their moving to being supported by another bursary organisation / funder; and/or their moving to a programme / university that the organisation does not support; and/or their choosing to stop studying a particular programme, or choosing to stop studying completely; and/or their stopping studying for personal reasons, including health and family issues. <p>'Dropping out' and 'dropping off' are subsections of withdrawal.</p>					
Use						

Dropout rate

Definition	<p>The proportion of students in any calendar year who did not continue to study the programme for which they were registered, with the support of the organisation.</p> <p>They may have been excluded by the university or only by the organisation.</p>					
Time period	x	year-on-year	x	final assessment	x	org level
Elaboration	<p>Students excluded by the organisation may continue to study, if the university has not excluded them.</p>					
Use						

Dropoff rate

Definition	The proportion of students in any calendar year who withdrew themselves from the organisation's support (largely for better funding). They may well have continued to study.
Time period	x year-on-year x final assessment x org level
Elaboration	<p>It could also be referred to as a 'Self-Exclusion Rate' or 'Self-Withdrawal Rate'.</p> <p>As an organisation cannot claim impact once students are beyond their influence, they might (or might not) claim the students' results at the end of the year they left; but they certainly cannot do so in subsequent years or at the end of their qualifications, however.</p> <p>As such, these students could be listed with the other students who withdrew, including this as one of the reasons; or be deducted from the total number of students in the cohort.</p>
Use	