

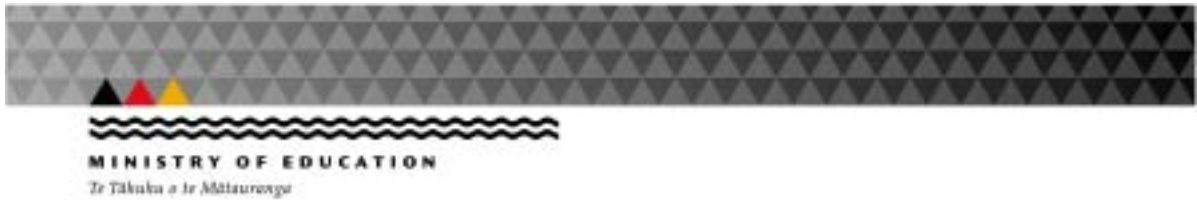


MINISTRY OF EDUCATION

Te Tāhuhu o te Mātauranga

Retention, Completion and Progression in Tertiary Education

2003



Retention, Completion and Progression in Tertiary Education 2003

Report

Topic Series 2003/02: Retention, Completion and Progression in Tertiary Education 2003

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Notes on Data and Tables

Sources & Methods

All data and rates in this report are estimates. The main source of rates comes from a derived dataset matching unit record enrolment records with completion records over the period 1994 to 2002. The Ministry of Education's Single Data Return survey¹ provided both source enrolment and completions data.

The methodology used to calculate rates was developed internally within the Ministry of Education. As there is no unique student identifier available in historical data to match students across providers and years exactly, other fields collected in the SDR have been used to estimate whether a student is the same student in different years. As such, the data is useful for providing indicative measures of retention, completion and progression for reasonably sized subgroup aggregates. In addition to the nature of the methods used to match students, there are a number of variations in reporting practice between providers that make comparisons at a provider level unreliable.

International comparisons come from published material in the respective countries as referenced in the text.

For a full report on the data and methodology used, and the associated quality issues refer to the final technical documentation report.² The following is a summary of the project scope and coverage, data sources, definitions and limitations.

Scope & Coverage

All retention, completion and progression data relates to students aged 15 and over enrolled at any time during a year, with a tertiary education provider in a formal programme of study of greater than one equivalent full-time week of study. Only providers who were eligible for EFTS-based tuition subsidies or student loans and allowances have been included. This includes all public providers and around 75-80 percent of all students studying formal programmes in private providers.

Data on private and other providers is included from 2000 only. Private providers include Other Tertiary Education Providers (OTEPs) where these providers received EFTS-funding or were approved for loans and allowances.

Parts of the tertiary education sector not covered in this report include:

- private providers who don't receive tuition subsidies, or offer courses approved for student loans or allowances, including those providing: Youth Training and Training Opportunities programmes, Skill Enhancement programmes, Industry Training off-job training, on-job training, Modern Apprenticeships, Gateway students, Secondary-Tertiary Alignment Resource (STAR) students
- students whose total equivalent full-time study is less than a week

¹ Single Data Return (SDR) is the name of the electronic survey of information collected from tertiary education providers. For more information on the information collected see www.minedu.govt.nz.

² Ministry of Education, (2004) *Retention, Completion & Progression 2003, Technical Documentation*.

- adult and community education
- education at non-NZQA registered private education providers, and
- other non-formal education.

Non-provider awarded completions

In particular, this study does not capture those students who are enrolled at a provider for part, or all of their qualification, but where the qualification is awarded by a non-provider organisation, such as the New Zealand Qualifications Authority, or an Industry Training Organisation. This will tend to under-estimate actual completion rates.

Definitions³

Retention: the percentage of a cohort of students who are still enrolled or have successfully completed a qualification.

Attrition: the percentage of a cohort of students who have left study without completing a qualification. Attrition plus Retention equals 100%.

Completion: the percentage of a cohort of students who have successfully completed a qualification. A student has successfully completed when all the academic requirements for the qualification have been met. It is not essential for the qualification to have been conferred.

Progression: the percentage of a cohort of students who continue study in the year following successful completion of a qualification.

Graduation rate (OECD): the number of graduates (of any age) divided by the population of the typical graduation age. The typical graduation age is determined by each country, and there will be one supplied for each ISCED level reported.

Ethnicity: ethnicity or ethnic group is based on the (prioritised) ethnicity of the student as reported in the base year. That is, for students starting in 1998, the 1998 reported ethnic group is used regardless of whether this changes in future years.

Age & Gender: both age and gender are based on the reported age and gender in the base year. Age relates to a student's age at 1 July in the base year.

Sub-Sector: In tables involving sub-sector, each student is counted in each sub-sector they were enrolled in. Hence enrolments with more

³ See also Ministry of Education, (2004) *Retention, Completion & Progression Technical Documentation*. Also See *Measuring Retention, Completion & Progression in Tertiary Education, A Discussion Paper*, (Ministry of Education (2004), and chapters 3-6 of this report for more detail.

than one tertiary provider will result in overcounting of the total number of unique students.

Level: Refers to the level of a qualification being studied. In tables involving level, each student is counted once for each qualification level they are studying at.

Course versus Qualification Completion

In this report, the term 'completion' is used to refer to successful completion of a *qualification*, rather than a *course*. Information on completion (both successful and unsuccessful) at course level in tertiary education in New Zealand became available from 2002 and has been reported elsewhere. This has significantly enhanced the ability to analyse retention and completion at course level.

Course completion rates will generally be much higher than qualification completion rates, as most qualifications will require the successful completion of a large number of courses to qualify the student. Lower completion rates in a qualification may not mean that learning is wasted, for example when courses passes are cross-credited to another qualification. The same, however, does not always hold for a course.

Students who change qualifications

Students who start one qualification and change to another before completing it are counted in retention and completion rates, depending on the definition of the cohort used. For example, if the cohort of interest is all first-time domestic students, then retention and completion rates will include all students who changed qualifications. If the cohort of interest is all first-time domestic students starting a degree in 1999, then the rates will relate to those students who are retained or completed a degree, but will exclude those who started a degree but changed to another level.

As such, retention and completion rates by qualification level will exclude students who change their level of qualification, and will be less than retention and completion rates not involving qualification level or total rates over *all levels*. Hence it is possible for retention and completion rates over *all levels* to be higher than retention or completion rates at each individual level.

Students who change institutions (transfers)

All rates include adjustments for transfers between institutions. When rates are calculated by sub-sector, they will include transfers between institutions in that sub-sector only. When rates are calculated by whether in public or private providers, they will include transfers only between public or private institutions respectively.

Full-time and Part-time Study

Apart from the 'Time in Study' section in the Retention chapter, rates in this report have not been adjusted for whether students are in full-time or part-time study. In future reports it is planned to include analysis of rates based on EFTS, that is, the equivalent full-time period of study for each enrolment.

Adjustments

Adjustment in this context refers to methods used to statistically revise rates to provide fairer comparisons between subgroups. For example, while rates in most tables and graphs are *disaggregated* by level of qualification, no attempt has been made to *adjust* rates by level. Similarly rates are not adjusted for part-time study, breaks in study, field or length of qualification, educational background, or by any demographic variables. In this sense care is needed when making fair comparisons as other confounding factors will be involved. Work on this may be incorporated in future reports.

Breaks in Study

Apart from the 'Time in Study' section, rates in this report have not been adjusted for breaks from study. That is, all rates are based on actual elapsed years, rather than years in study (ie minus years off).

This is important in interpreting rates, as retention and completion rates after a 'normal' period of study for a qualification (eg three years for most degrees) will under-represent true or final retention and completion rates for those students who have taken a break. In this report, rates are displayed in most cases at five years after starting study, (six years for doctorate students). However, a small proportion of such students may return to complete after this period.

This report looks at direct progression, that is, a student's study status in the year following completion. As such, it does not take account of those students who take a break after completing a qualification, before returning for further study. Because of this, the rates used in this report will be less than final progression rates.

Data & Table Notes

Completion rates in 2002 are based on provisional 2002 data, and may differ slightly from 2002 completions data published elsewhere by the Ministry of Education.

A student is counted as enrolled for that year, even if they drop out during the year. Hence retention rates for the first year of study will always appear as 100 percent.

All numbers in this report have been rounded to the nearest 10. Hence table totals may not add because of this rounding. Where the number of students in a particular cell is under 30, the estimate is not considered reliable enough and a rate has not been reported. While all numbers are rounded, all rates are based on unrounded numbers.

Rates for *all levels* include students who have started one at one level and transferred to another level, whereas rates at each individual level do not. Hence it is possible for retention and completion rates over *all levels* to be higher than retention or completion rates at each individual level.

Where rates have been categorised by level, age group, ethnic group or gender, only categories with specified (ie non-missing) values have been displayed. However, row totals include all students.

1 Summary

Introduction

This report provides the first comprehensive cohort-based analysis on the rates of *qualification* completion, retention and progression of students in formal tertiary study in New Zealand. It analyses what percentage of students starting a qualification will successfully complete it, what percentage will leave study without completing it and how many will progress to further study after completing a qualification.

This information is important for a number of reasons. It provides indicators:

- of the rate at which New Zealand's tertiary education system produces qualifications and skills
- of the internal efficiency and quality of the tertiary education system, while recognising that there are many factors outside of the system that will impact on outcomes and that retention and completion are not always good markers of quality and that these factors need to be read in the context of other indicators
- of value for money, that is, how well New Zealand's investment in tertiary education is contributing to gains in qualifications and skills
- of how experiences and outcomes vary for and between different groups of students over time
- of how the New Zealand tertiary education system performs in comparison with other countries in the context of a global knowledge economy, and
- that can help shape decision-making for a range of purposes, including government strategy, policy development and investment, provider practice and development, and student decision-making.

Statistics on *rates* of retention, completion and progression have not previously been available in New Zealand. This is currently changing with the collection of course completion data from 2002, and the introduction of a national student number from 2003, which will provide the opportunity to more readily analyse rates in the future.

Many countries overseas collect and report information on rates of retention and completion, although there are a number of variations in the concepts used. OECD measures provide the only consistent international comparisons, but are not able to provide true longitudinal cohort-based measures.

Overall Sector Retention, Completion and Progression Rates

An estimated 40 percent of domestic students starting a qualification in 1998 had completed after five years. Fifty-one percent of those who started a qualification in 1998 had left without completing it five years later, and nine percent were still studying towards it five years later.

Domestic Students at Public Providers in 1998	By end of 2002 (5 years later) percentage that		
	Successfully Complete	Still be studying towards completion	Leave without Completing
Domestic students starting any qualification	40%	9%	51%
Domestic students starting their first qualification	37%	5%	57%
All domestic students (starting or continuing)	49%	8%	43%

In the wider context, students successfully complete courses at a much higher rate than qualifications, and many leave study (in particular, in times of higher employment), with only one or two courses left to complete for their qualification. Other students will enrol for a qualification, but abandon it once they have met their objectives, which may be passing only two or three courses. To that extent, if a high proportion of students do not complete their qualifications, this can not necessarily be read as a system failure.

New Zealand's lifelong approach to tertiary learning, relatively open access to enrolment, and easy access to student loans, have tended to increase the number of students with a focus on part-time course-based study, and those trying to combine work with study. This is borne out in other countries, which have higher academic entry requirements, more full-time study, and less access to student support. Recent statistics in Britain show that the institutions with the highest drop-out rates were also the ones that generally excelled at attracting students from under-represented groups.⁴ That is, completion goals can not be viewed in isolation from access goals.

In terms of progression, 15 percent of domestic students who completed a qualification in 2001 progressed to a higher level qualification 2002. Just under 24 percent continued study in a qualification of the same level or lower in 2002. The remaining nearly 62 percent left tertiary study in the following year.⁵

Domestic Students Completing in Public or Private Providers in 2001	Percentage in 2002 that		
	Continue Study at a Higher Level	Continue Study at the Same Level or Lower	Leave Study
Students completing any qualification	15%	24%	62%

Totals do not add due to rounding.

Five-year completion rates are not available for private providers, but after three years the completion rate at private providers was 32 percent, compared with 27 percent for public providers. While completion rates were higher after three years at private providers, retention rates were higher at public providers. Students complete faster at private providers, but more of them eventually complete at public providers. This is in part because a higher proportion of students study full-time at private providers than at public providers, and so take a shorter time to complete.

International students also have higher completion rates but similar retention rates as domestic students (after three years). Again, this can be largely accounted for by the fact that around 71 percent of international students are studying full-time compared with 47 percent of domestic students.

Students Starting a Qualification in 2000	By end of 2002 (3 years later) percentage that		
	Successfully Complete	Still be studying towards completion	Leave without Completing
Domestic students (public and private)	29%	15%	56%
International students (public and private)	33%	11%	56%
Public Providers (domestic students only)	27%	19%	54%
Private Providers (domestic students only)	32%	3%	65%

⁴ The Times Higher Education Supplement, No. 1,619, December 12, 2003.

⁵ This figures does not capture those students who have taken a break in 2002, and who may return to further study in the future.

Overall 15 percent of domestic students completing a qualification in 2001 went on to further study in 2002. Progression rates to higher level study in 2002 were twice as high for students at public providers than at private providers. This is not surprising given that less than five percent of qualifications at private providers are above diploma level.

Students Completing a Qualification in 2001	Percentage in 2002 that		
	Continue Study at a Higher Level	Continue Study at the Same Level or Lower	Leave Study
Public Providers (domestic students only)	17%	24%	60%
Private Providers (domestic students only)	8%	23%	69%
All Providers (domestic students only)	15%	24%	62%

Retention, Completion and Progression by Qualification Level

Retention and completion rates by qualification level improve the higher the level studied. Despite requiring the shortest time to complete, certificate completion rates are the lowest of any level studied. This may in part reflect differing academic abilities of students at different levels. This may also in part reflect the fact that proportionately more students at sub-degree level are studying part-time, and have work, family or other commitments. Further, a number of students starting a certificate ending up transferring to and completing a diploma or degree.

Domestic Students Starting a Qualification at Public Providers in 1998 by Qualification Level	By end of 2002 (5 years later) percentage that		
	Successfully Complete	Still be studying towards completion	Leave without Completing
Certificates	30%	4%	66%
Diplomas	32%	4%	64%
Degrees	46%	7%	47%
Postgraduate Certificates/Diploma	49%	1%	50%
Honours/Masters	59%	2%	39%
Doctorates (5-year – 1998 students)	26%	23%	51%
Doctorates (estimated long-term)	54%-57%	0%	43%-46%
All Levels	40%	9%	51%

All Levels include students who change qualification level whereas rates for individual levels do not.

Progression to higher level study is highest for students completing certificates (at 17 percent). Around 15 percent of students completing degrees progress to higher level study, while 13 percent of students completing a diploma go on to higher level study. Around six percent of students completing an honours or masters degree go on to doctorate study.

Domestic Students Completing a Qualification in 2001 by Qualification Level Completed	Percentage in 2002 enrolled at a		
	Higher Level	Same Level	Lower Level
Certificates	17%	25%	-
Diplomas	13%	14%	9%
Degrees	15%	11%	10%
Postgraduate Certificates/Diploma	13%	7%	11%
Honours/Masters	6%	12%	19%
Doctorates	-	2%	11%
All Levels	15%	18%	6%

The mix of qualification levels and the nature of qualifications offered varies significantly from one type of provider to another, and hence needs to be considered when making comparisons between types of providers. For example, a diploma offered at a university may, in many cases be quite different from a diploma offered at a polytechnic, even though they are at the same level. The same applies to postgraduate certificates or diplomas.

Other factors such as part-time study, the propensity of students to take a break, academic preparedness, academic entry requirements, and other differences amongst students will also affect rates and make comparisons between provider types problematic. Adjustment for these factors is not made in this report. In most cases however, comparisons are made by qualification level. Nonetheless, care is needed in drawing inferences from these comparisons.

Time in Study

After adjusting for breaks in study, 44 percent of domestic students at public providers in 1998 were enrolled in more than one year at certificate level. But when this was further adjusted for those working part-time, just 9 percent were enrolled in more than one year at certificate level. That is, if these same students were studying full-time without a break, only 9 percent would have enrolled in more than one year.

By contrast, 33 percent of domestic students starting a degree in 1998 were enrolled more than three years. If they were enrolled full-time continuously (ie without breaks) 13 percent would have enrolled in more than three years.

The average length of time a student spent in study between 1998 and 2002, if they all were studying full-time without a break, was 1 year and 1 month.

Qualification Level	Total years enrolled between 1998 and 2002*	Percentage of all domestic students who started at this level in 1998	Total continuous equivalent full-time years enrolled between 1998 and 2002	Percentage of all domestic students who started at this level in 1998
Certificates	>1	44%	>1	9%
Diplomas	>2	22%	>2	5%
Degrees	>3	33%	>3	13%
Postgrad Cert/Dips	>2	17%	>2	0%
Honours/Masters	>2	27%	>2	13%
Doctorates	>4	43%	>4	17%
Average all Students	2 years 0 months		1 year 1 month	

* Number of years enrolled regardless of how long during the year the student was enrolled for

Retention, Completion and Progression by Sub-Sector

Completion rates are highest at colleges of education. In particular, college of education completion rates are high at degree level, where 65 percent of students complete, over 1.4 times the rate for universities. This is, perhaps, to be expected given the specialised nature of provision at these institutions.

Polytechnics have the lowest completion rates at sub-degree level, but the highest completion rate for postgraduate certificates and diplomas. This may in part be due to

the fact that polytechnics in general, offer fewer and more vocational focussed courses than universities⁶, and so rates may be reflecting a more specialised group of students receiving more specialised training. In addition, the data used in this report does not capture a number of qualification completions where the student has been enrolled at a tertiary institution, but where the qualification has been awarded by a non-institution organisation (for example, NZQA or an ITO). This will tend to under-represent completion rates at in particular, polytechnics and private providers.

Domestic Students Starting a Qualification by Sub-Sector	Percentage of Students Successfully Completed by end of 2002 by Qualification Level						
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/Masters	Doctorates	All Levels
<i>five-year rates (1998 starters)</i>							
Universities	28%	41%	45%	49%	59%	26%	45%
Polytechnics	30%	25%	40%	61%	58%		31%
Colleges of Education	36%	37%	65%		13%		52%
Wānanga	30%	38%	30%		16%		39%
Public Providers	30%	32%	46%	49%	59%	26%	40%
<i>three-year rates (2000 starters)</i>							
Public Providers	28%	26%	22%	41%	50%	4%	27%
Private Providers	28%	41%	41%	90%	34%		32%
All Providers	28%	30%	23%	49%	50%	4%	29%

Note: Rates based on fewer than 30 students are excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Wānanga have grown significantly since 2001. One-year retention and completion rates from 1998 to 2001 have also increased significantly.⁷ One-year retention for wānanga students in 1998 was 35 percent. By 2001, this rate had climbed to 78 percent.

This provides some evidence that the recent growth in first-time students in wānanga is leading to further study in tertiary education for these students. One-year retention for 2001 students studying certificates at wānanga, at 78 percent, was significantly above other sub-sectors. With proportionately more part-time study at wānanga, longer-term data is needed before completion rates for this recent growth can be better determined.

Domestic Students Starting a Certificate in 2001 by Sub-Sector	Percentage completed or still enrolled in 2002	Percentage completed by end of 2001	Percentage of Completers progressing in 2002 to study in	
	1-year retention rate	1-year completion rate	Diplomas	Degrees
Universities	35%	25%	11%	19%
Polytechnics	57%	27%	10%	7%
Colleges of Education	38%	23%	8%	17%
Wānanga	78%	25%	13%	9%
Private Providers	52%	30%	5%	4%

Of all students completing a qualification at a wānanga in 2001, 26 percent were studying at a higher level in 2002. This compares with 18 percent for universities, 16 percent for polytechnics, 10 percent for colleges of education and eight percent for private providers.

⁶ There are obvious exceptions to this, for example with medical postgraduate courses in universities.

⁷ A one-year retention rate is the percentage of a cohort of students who have successfully completed or are still enrolled one year later. Similarly, one-year completion refers to the percentage of a cohort of students who have successfully completed one year later.

Of those completing *certificates* in 2001, wānanga have the highest rate of progression to diploma level study, at 13 percent. However, universities and colleges of education have the highest progression from certificates to degrees at 19 percent and 17 percent respectively. Wānanga have the highest rate of progression from diplomas to degrees (around 30 percent). The percentage of wānanga students completing certificates or diplomas in 2001 and studying at the same or a lower level in 2002 is also the highest for any sub-sector.

Domestic Students Completing a Qualification in 2001 by Sub-Sector	Percentage Enrolled in Higher Level Study in 2002 by Qualification Level Completed in 2001						
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
Universities	32%	18%	18%	14%	6%	-	18%
Polytechnics	18%	15%	4%	7%	0%	-	16%
Colleges of Education	29%	12%	4%			-	10%
Wānanga	24%	32%	12%			-	26%
Public Providers	21%	17%	15%	14%	6%	-	17%
Private Providers	9%	5%	7%	5%	0%	-	8%
All Providers	17%	13%	15%	13%	6%	-	15%

Note: Rates based on fewer than 30 students are excluded.

Retention, Completion and Progression by Ethnic Group

Of domestic students, Asian students have the highest completion rates over all levels (52 percent), while at 31 percent, Pasifika students have the lowest rates of completion. At levels below degree level, Māori completion rates are similar to Asian (36 percent), but at higher levels, Māori completion rates are much lower than those of other ethnic groups. In particular, at the postgraduate level, Māori have the lowest completion rates of any ethnic group.

Pasifika rates of completion are the lowest of any group at degree level and below. Although similar at certificate level to Pākehā students, Pasifika completion rates are nine percent lower than those of Asian and Māori students at sub-degree level.

While Asian students have the highest completion rates over all levels of study, Māori have the highest rates of retention, and therefore lowest attrition at levels below degree level. This is in part because of the higher proportion of part-time Māori students. At degree level however, Māori retention is the lowest – 51 percent have neither completed or are still enrolled after five years, 7 percent lower than Pākehā/Other students and 17 percent lower than Asian students. At degree level, Pasifika students' retention is similar to Māori students.

Domestic Students Starting a Qualification in 1998 at Public Providers	Percentage of Students Successfully Completed by end of 2002 by Qualification Level						
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
Māori	36%	35%	39%	42%	50%	16%	45%
Pasifika	29%	26%	33%	44%	53%		31%
Asian	38%	35%	55%	49%	66%	33%	52%
Pākehā/Other	29%	32%	47%	50%	58%	26%	39%
All Students	30%	32%	46%	49%	59%	26%	40%

Note: Rates based on fewer than 30 students are excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Over all qualification levels, Māori have the highest rates of progression; 48 percent of those completing a qualification will continue studying (to higher, same or lower levels) in the following year. Around 17 percent of Māori students completing a qualification in 2001 progressed to a *higher* level, slightly lower than the rate for Asian students (18 percent) but higher than for other groups.

Pasifika have comparable rates of progression for those completing degrees or lower, but progression for those completing postgraduate qualifications is the lowest of any group. Asian students have the highest rate of progression to higher levels for those completing degrees, or postgraduate certificates or diplomas.

Domestic Students Completing a Qualification in 2001	Percentage Enrolled in Higher Level Study in 2002 by Qualification Level Completed in 2001						
	Certif- icates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
Māori	17%	19%	14%	15%	6%	-	17%
Pasifika	16%	16%	16%	8%	3%	-	15%
Asian	19%	18%	19%	26%	5%	-	18%
Pākehā/Other	16%	11%	14%	10%	6%	-	14%
All Students	17%	13%	15%	13%	6%	-	15%

Māori are more likely to progress to higher study from a wānanga, and least likely from a private provider (27 percent compared eight percent). By contrast, Pasifika and Asian students are more likely to progress to higher level study from a university (and least likely from a private provider). Along with increased retention and completion rates, this indicates that recent wānanga initiatives which have acted to significantly increase Māori participation in tertiary education, also initially appear successful in providing some pathway into further study.

Retention, Completion and Progression by Gender

Women are more likely to successfully complete a tertiary qualification than men. For degree level qualifications and below, the rate at which men complete is between six and nine percent lower than the rate for women. However, the gap narrows at postgraduate level. For example, while five-year completion rates for doctorates are higher for men than women, estimated final completion rates are about the same (estimated 57 percent for women compared with 56 percent for men).

Domestic Students Starting a Qualification in 1998 at Public Providers	Percentage of Students Successfully Completed by end of 2002 by Qualification Level						
	Certif- icates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
Females	35%	34%	49%	51%	59%	23%	44%
Males	26%	28%	41%	47%	58%	29%	35%
All Students	30%	32%	46%	49%	59%	26%	40%

All Levels include students who change qualification level whereas rates for individual levels do not.

Progression rates for men and women are similar across most sub-sectors and qualification levels.

Domestic Students Completing a Qualification in 2001	Percentage Enrolled in Higher Level Study in 2002 by Qualification Level Completed in 2001						
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
Females	19%	13%	14%	12%	6%	-	16%
Males	16%	13%	16%	15%	5%	-	15%
All Students	17%	13%	15%	13%	6%	-	15%

Retention, Completion and Progression by Age Group

Students under 25 have higher completion rates across all levels, in particular, at degree level, where students under 25 are nearly 1.5 times as likely to complete as students over 25. This is in part due to the fact that older students are more likely to be studying part-time, and combining study with work or family commitments. However, the difference is less for diploma qualifications, both undergraduate and postgraduate, where students under 25 are only slightly more likely (1.1 times) to complete than students of older ages.

Domestic Students Starting a Qualification in 1998 at Public Providers by Age Group	Percentage of Students Successfully Completed by end of 2002 by Qualification Level						
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
15-17	39%	29%	59%				44%
18-24	35%	35%	52%	51%	62%	34%	47%
25-39	28%	30%	37%	48%	58%	26%	35%
40 and over	25%	31%	36%	50%	49%	18%	32%
All Students	30%	32%	46%	49%	59%	26%	40%

All Levels include students who change qualification level whereas rates for individual levels do not.

Domestic Students Completing a Qualification in 2001	Percentage Enrolled in Higher Level Study in 2002 by Qualification Level Completed in 2001						
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/ Masters	Doctorates	All Levels
15-17	13%	5%				-	12%
18-24	22%	15%	16%	11%	5%	-	17%
25-39	16%	13%	12%	14%	6%	-	14%
40 and over	12%	13%	11%	12%	5%	-	12%
All Students	17%	13%	15%	13%	6%	-	15%

Note: Rates based on fewer than 30 students are excluded.

International Comparisons

Fair international comparisons are problematic because of the significant education system differences, including financial access, academic entry, qualification content and completion standards, and data measurement and definitional differences.

These differences notwithstanding, OECD comparisons show New Zealand to be above or near OECD averages in graduation rates. New Zealand's graduation rate of 40 percent compares with 42 percent in Australia, 37 percent in Britain, 30 percent for the OECD mean.

OECD	Type B ⁸ Programmes	All Type A Programmes	Advanced research programmes
Australia		42.0%	1.3%
New Zealand	17.0%	40.2%	0.9%
Ireland	19.0%	29.3%	0.9%
France	17.9%	25.0%	0.9%
Britain	11.5%	37.4%	0.1%
United States			1.3%
OECD	11.0%	30.3%	1.1%

In order to achieve comparability across countries, the OECD is obliged to use indicators that are not the best measures of completion and retention that are possible. Measures of retention and completion used in Australia, Britain and the US are each different, and so can not be directly compared to each other or to New Zealand rates as used in this report. Further work is required to reconstruct New Zealand rates using the various definitions used in each country.

Future Work

This is the first time such a study has been undertaken in New Zealand. While the results provide valuable new information on tertiary education outcomes in New Zealand, the results are still estimates, and don't cover the whole sector, or provide reliable data at provider level. The study is focused on qualifications and doesn't include analysis at a course level, and is limited in scope of the fields analysed.

Most importantly, none of the rates used in the study have been adjusted. In particular, no adjustment has been made for part-time study and its effect on length of study and rates of completion. While most rates in the study have been disaggregated by qualification level, total rates have not been adjusted for qualification level. Neither have rates been adjusted for the different study characteristics or academic backgrounds of different groups. This requires the reader to be careful when making comparisons between groups, as particular differences between groups may impact on the *fairness* of such comparisons.

A number of areas have been identified for future reports. These include:

- The use of national student number (a unique national student identifier introduced in 2003) for future matching, and as a later check on the match results obtained in this study.
- Adjustment for part-time study using the students EFTS value.
- Adjustment and analysis of rates to allow for breaks in study.
- Investigation into retention, completion and progression in other parts of the tertiary education sector.
- Development of robust methods to construct New Zealand rates in such a way to allow fair comparisons with the definitions used in other countries.
- Inclusion of course-based rates and the interaction between course completion and qualification completion.

⁸ OECD tertiary data is based on study at ISCED levels 5 and 6. ISCED level 5 represents study at diploma, degree, and postgraduate level (excluding doctorate). Level 6 represents doctorate level study. Type A represents more academically or theoretically based study, while Type B represents more vocationally-oriented study.

2 Introduction

Information on rates of retention, attrition, progression and completion in tertiary education in New Zealand is an area of high need. Nearly all comparable countries have sought to measure these rates.⁹ This information is important for a number of reasons. It provides indicators:

- of the rate at which New Zealand's tertiary education system produces qualifications and skills
- of the internal efficiency and quality of the tertiary education system, while recognising that there are many factors outside of the system that will impact on outcomes and that retention and completion are not always good markers of quality and that these factors need to be read in the context of other indicators
- of value for money, that is, how well New Zealand's investment in tertiary education is contributing to gains in qualifications and skills
- of how experiences and outcomes vary for and between different groups of students over time
- of how the New Zealand tertiary education system performs in comparison with other countries in the context of a global knowledge economy, and that can help shape decision-making for a range of purposes, including government strategy, policy development and investment, provider practice and development, as well as information for students to help in decision-making.

Statistics on the number of formal completions are routinely published in New Zealand. See for example, the Ministry of Education web-site where trend data on the numbers of students completing qualifications is displayed.¹⁰ However, due to the lack of a unique national student number (until 2003) this data has not been systematically related to enrolment numbers, and data on *rates* of completion or retention or attrition has not been routinely published. A number of ad hoc or project specific studies relating to completion, retention or attrition however, have been done in recent years.¹¹

The collection of course completion data as part of the Single Data Return from 2002 has significantly enhanced the ability to analyse retention and completion at a course level. However, this report focuses on *qualifications*, rather than *courses*, and provides the first comprehensive cohort-based analysis on the rates of *qualification* completion, retention and progression of students in formal tertiary study in New Zealand.

Information on retention and completion (both successful and unsuccessful) at a course level and has been reported elsewhere. Retention and completion at a course level will often be quite different to retention and completion at a qualification level. Course completion rates will generally be much higher than qualification completion rates, as most qualifications will require the successful completion of a large number of courses to qualify the student. Further, lower completion rates in a qualification may not mean

⁹ See Chapter 6 of this report, and see *Measuring Retention, Completion & Progression in Tertiary Education, A Discussion Paper*, Ministry of Education (2004) for more detail.

¹⁰ Ministry of Education, Data Management & Analysis, <http://www.minedu.govt.nz/index.cfm?layout=document&documentid=7116>.

¹¹ See *Measuring Retention, Completion & Progression in Tertiary Education, A Discussion Paper*, for more detail.

that learning is wasted, for example when courses passes are cross-credited to another qualification. The same, however, does not always hold at course level.

The information in this report comes from a dataset produced by matching students across time using a range of fields from unit record enrolment and completion data supplied by tertiary education providers to the Ministry of Education. As such, all results should be treated as estimates only. The introduction of a national student number in 2003 will significantly enhance the ability to measure completion, retention and progression for future years. Full details of the methods used and quality and limitations of the matched data can be found in a separate report.¹² The notes to tables and graphs also provide further information about scope, definitions and limitations.

As part of this project, a background and concepts and definitions discussion paper was developed in January 2003.¹³ This paper reviewed New Zealand and overseas practice in measuring retention, attrition, progression and completion, finding a range of definitions used. That paper proposed monitoring three concepts and developed definitions for these – they were Retention/Attrition, Completion and Progression. It is these measures that are analysed in this report. The concepts and definitions for these are described in each chapter.

In addition, that paper looked at a number of other related measures, including transfers, time-out, and average length of study. These measures are not analysed in this report.

This report does not cover the whole tertiary education sector. The report covers those students enrolled in a formal qualification of greater than 0.03 EFTS (one week) at public providers, or at private providers that have received tuition subsidy funding from the government, or who offer courses that have been approved for student loans or student allowances. In 2002, enrolments in such qualifications represented around 425,000 students. The report covers public providers from 1998 to 2002, and private providers from 2000 to 2002

In particular, this study does not capture those students who are enrolled at a provider for part, or all of their qualification, but where the qualification is awarded by a non-provider organisation, such as the New Zealand Qualifications Authority, or an Industry Training Organisation. This will tend to under-estimate actual completion rates.

Achievement in other parts of the sector, such as industry training and foundation education, is significant in terms of learners and strategic importance, but a detailed discussion of those parts of the sector is beyond the scope of this report.

¹² Ministry of Education, (2004) *Retention, Completion & Progression 2003, Technical Documentation*.

¹³ Ministry of Education, (2004) *Measuring Retention, Completion & Progression in Tertiary Education, A Discussion Paper*

Parts of the tertiary education sector not covered in this report include:

- **private providers who don't receive tuition subsidies, or offer courses approved for student loans or allowances, including those providing: Youth Training and Training Opportunities programmes, Skill Enhancement programmes, Industry Training off-job training, on-job training, Modern Apprenticeships, Gateway students, Secondary-Tertiary Alignment Resource (STAR) students**
- **students whose total equivalent full-time formal study is less than a week**
- **adult and community education**
- **education at non-NZQA registered private education providers, and**
- **other non-formal education.**

3 Retention

Concept & Definition

'Retention', as used in this report, refers to whether a student continues in study until completion. As such, it is the complement of attrition or drop out, that is, of students who leave study without completing.

Retention and attrition are useful as indicators of the internal efficiency or quality of the tertiary education system. It should be recognised, however, that there are many factors outside of the tertiary education system that impact on whether a student persists in study until completion. The concepts of retention and completion are not always good markers of quality, and need to be read in the context of other indicators.¹⁴

In the wider context, students successfully complete courses at a much higher rate than qualifications, and many leave study (in particular, in times of higher employment), with only one or two courses left to complete for their qualification. Other students will enrol for a qualification, but abandon it once they have met their objectives, which may be passing only two or three courses. To that extent, if a high proportion of students do not complete their qualifications, this can not necessarily be read as a system failure.

New Zealand's lifelong approach to tertiary learning, relatively open access to enrolment, and easy access to student loans, have tended to increase the number of students with a focus on part-time course-based study, and those trying to combine work with study. This is borne out in other countries, which have higher academic entry requirements, more full-time study, and less access to student support. Recent statistics in Britain show that the institutions with the highest drop-out rates were also the ones that generally excelled at attracting students from under-represented groups.¹⁵ That is, completion goals can not be viewed in isolation from access goals.

The discussion in this chapter follows various cohorts of students and looks at what percentage of them stay in study until they have successfully completed. As such, retention involves the notions of both re-enrolment and completion. Retention differs from re-enrolment in the sense that students who complete and no longer study *are counted* as being retained, but *are not counted* as being re-enrolled.

Suppose we have a group or cohort of students G , and if, after year i , some have completed C_i say, and some are still enrolled E_i , then the retention rate r_i for cohort G after i years is:

$$r_i = (E_i + C_i)/G * 100$$

Attrition is defined as the complement:

$$a_i = 100 - r_i$$

¹⁴ OECD (2002). *Education at a Glance, OECD Indicators 2002*, page 40.

¹⁵ The Times Higher Education Supplement, No. 1,619, December 12, 2003.

Retention (and attrition) vary naturally over time. Many students take a break for one or more years – and may be counted as dropping out, but will later re-enrol to complete a qualification. Under this definition rates have *not* been adjusted for breaks from study.

This is important in interpreting rates, as retention and completion rates after a ‘normal’ period of study for a qualification (eg three years for most degrees) will under-represent true or final retention and completion rates for those students who have taken a break. In this report, rates are displayed in most cases at five years after starting study, (six years for doctorate students). However, a small proportion of such students may return to complete after this period.

Past completion and re-enrolment rates can be used to infer something about future re-enrolment and completion rates for current students and those taking a break. However, in this report, retention is presented as actual rates using the years for which data is available. Eventually, as all students either complete their qualification or finally stop studying, the retention rate for this cohort will equal the completion rate.

In this definition of retention, as for completion, the cohort group is kept the same over time. The definition of cohorts is important, as the retention status for a student will change depending on the definition of the cohort. For example, a student starting a certificate, but completing a degree *will be counted* as retained when the cohort of interest is all students starting any qualification, but *will not be counted* as retained when the cohort of interest is those students starting certificates. In particular, retention rates for all starting (ie first-time) students will be different from retention of all students starting a new qualification level.

In this definition, all rates include adjustments for transfers between institutions. When rates are calculated by sub-sector, they will include transfers between institutions in that sub-sector only. When rates are calculated by whether in public or private providers, they will include transfers only between public or private institutions respectively.

Retention rates vary with a number of factors that should be considered in making comparisons. The most obvious of which is the type and length of qualification. The different standards of the accrediting bodies will also affect retention rates, as will the many different academic characteristics of the students undertaking the study.

In most tables and graphs in this report, rates have been disaggregated by level of qualification. However, no attempt has been made to *adjust* rates by level, field or length of qualification, whether studying part-time or full-time, by educational background, or by any other academic or demographic variables. In this sense care is needed when making fair comparisons as other confounding factors will be involved.

Total Retention

Sixty-nine percent of all students starting or continuing studying in 2001 had either completed or were still enrolled in 2002. Conversely, 31 percent of students studying in 2001 did not complete and did not study in 2002. For students starting or continuing studying in 2000, 60 percent had completed or were still studying two years later, in 2002, and 40 percent had left study without completing.

For those students *starting* study in 2001, 64 percent were retained after one year (and 36 percent had dropped out or were taking a break from study), while after two years, 49 percent will have completed or will be still enrolled (and 51 percent will have left without completing).

For those students *starting at a new qualification level* in 2000, 56 percent had completed or were still enrolled in 2001, and 44 percent had completed were still enrolled in 2002. These rates were the same for both domestic and international students.

For those *domestic* students *starting at a new qualification level* in 2000, retention rates by qualification level were as follows:

Figure 1: Retention rates by qualification level for all domestic students starting a qualification in 2000

Level of Qualification Started in 2000	Students starting at this level	Percentage still enrolled or completed by end of	
		2001	2002
Certificates	90,760	50%	36%
Diplomas	32,590	54%	41%
Degrees	39,200	68%	60%
Postgrad Cert/Dips	7,230	62%	56%
Honours/Masters	5,910	70%	62%
Doctorates	840	83%	78%
Any Level	176,530	56%	44%

Includes public and private providers.

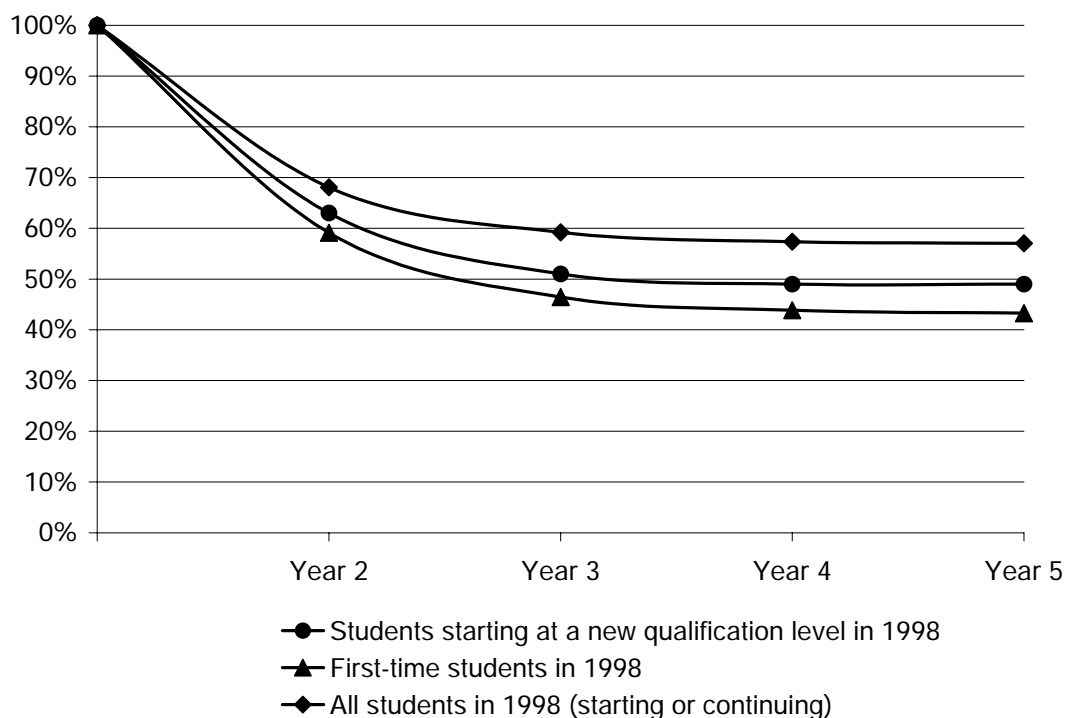
All numbers are rounded to the nearest 10. Totals may not therefore add due to this rounding.

Students are counted for each level of qualification they were enrolled in, hence the total will overcount the actual number of students starting a qualification.

All Levels include students who change qualification level whereas rates for individual levels do not.

Longer-term retention rates are available for public providers. Five-year retention rates for 1998 domestic students are shown below.

Figure 2: Retention rates for domestic students at a public provider in 1998



Domestic Students at Public Providers in 1998	Percentage of Students Successfully Completed or Still Enrolled by end of			
	Year 2	Year 3	Year 4	Year 5
Students starting at a new qualification level in 1998	63%	51%	49%	49%
First-time students in 1998	59%	46%	44%	43%
All students in 1998 (starting or continuing)	68%	59%	57%	57%

Retention rates for all students, that is, both those starting and those continuing study at a particular level, are naturally higher than for just those who are starting study at that level. The first measure provides a better estimate of a final retention rate, while larger differences between the two rates reflect a longer period required to complete a qualification at that level.

Time in Study

Many students do not study full-time, and spend varying proportions of the year involved in study. In addition, a number of students who start a qualification will take a break during their study, and come back later to continue. Most of the analysis in this report has not taken account of this, although this is planned for future reports.

However, the following table does provide two measures of duration, one adjusted for breaks in study, and the second adjusted for part-time study.

Figure 3: Length of time in study for domestic students starting a qualification at a public provider in 1998 by qualification level

Qualification Level	Total years enrolled between 1998 and 2002	Percentage of domestic students who started this level in 1998	Total continuous equivalent full-time years enrolled between 1998 and 2002	Percentage of domestic students who started this level in 1998
Certificates	<=1	56%	<=1	91%
	2	28%	2	8%
	3	10%	3	1%
	4	4%	4	0%
	5	2%	5+	0%
		100%		100%
Diplomas	<=1	53%	<=1	81%
	2	26%	2	15%
	3	13%	3	4%
	4	6%	4	0%
	5	3%	5+	0%
		100%		100.0%
Degrees	<=1	29%	<=1	43%
	2	16%	2	18%
	3	22%	3	27%
	4	19%	4	10%
	5	14%	5+	3%
		100%		100%
Postgrad Cert/Dips	<=1	59%	<=1	92%
	2	24%	2	7%
	3	12%	3	0%
	4	4%	4	0%
	5	1%	5+	0%
		100%		100%
Honours/Masters	<=1	36%	<=1	48%
	2	37%	2	39%
	3	16%	3	10%
	4	8%	4	2%
	5	3%	5+	1%
		100%		100%
Doctorates	<=1	12%	<=1	16%
	2	9%	2	13%
	3	13%	3	19%
	4	23%	4	25%
	5	43%	5+	27%
		100%		100%
Average all Students		2 years 0 months		1 year 1 month

Note: The 'years enrolled' column is actual number of years enrolled regardless of how long during the year the student was enrolled for, and excluding and breaks during study.

After adjusting for breaks in study, 44 percent of domestic students at public providers in 1998 were enrolled in more than one year at certificate level. But when this was further adjusted for those working part-time, just 9 percent were enrolled in more than one year at certificate level. That is, if these same students were studying full-time without a break, only 9 percent would have enrolled in more than one year.

By contrast, 33 percent of domestic students starting a degree in 1998 were enrolled more than three years. If they were enrolled full-time continuously (ie without breaks) 13 percent would have enrolled in more than three years.

The average length of time a student spent in study between 1998 and 2002, if they all were studying full-time without a break, was 1 year and 1 month.

Public and Private Providers

Completion data (and hence retention rates) for private providers are available from 2000, but this data is limited only to those providers receiving funding under the EFTS-based tuition subsidy scheme, or who offered courses approved for student loans and allowances. This represents around 48 percent of all private providers offering formal qualifications and between 75-80 percent of all students studying formal qualifications at private providers.

Private providers predominately offer lower level qualifications requiring either one or two years to complete. For example, 97 percent of all students in private providers in 2002 were studying certificate level or diploma level qualifications, compared with 59 percent of students in public providers. There were around 560 domestic students starting degrees in private providers in 2000, compared with 38,780 in public providers.

The figures below show retention rates after two years, by qualification level. However, because of the short period of data available to do comparisons, and the different mix of provision, caution is needed when inferring information from these comparisons.

Figure 4: Three-year retention rates for all domestic students starting a qualification in 2000 for public, private and all providers

Level Started in 2000	Percentage of Students Successfully Completed or Still Enrolled by end of 2002					
	Public		Private		All	
	# Starting	% Retained	# Starting	% Retained	# Starting	% Retained
Certificate	58,410	37%	35,930	30%	90,760	36%
Diploma	24,850	38%	8,280	49%	32,590	41%
Degree	38,780	60%	560	52%	39,200	60%
Postgrad Cert/Dips	6,710	49%	900	90%	7,230	56%
Honours/Masters	5,830	63%	80	49%	5,910	62%
Doctorate	840	78%			840	78%
All Levels	135,420	46%	45,750	35%	176,530	44%

Note: Students are counted in each level they were enrolled in, hence the total will overcount the number of students starting a qualification. In the 'All' column, however, a student enrolled in both a public and a private provider has only been counted once. Hence public provider and private provider student totals will not equal the total provider student total. *All Levels* include students who change qualification level whereas rates for individual levels do not.

Retention is higher for public providers at all levels except undergraduate and postgraduate diplomas. Over all levels, 35 percent of domestic students in private providers are still studying or have completed after three years, compared with 46 percent for public provider students. That is, 65 percent of domestic students starting a new qualification level in private providers in 2000, did not complete and were not enrolled at that level in a private provider in 2002. Some of these may have gone to complete at another qualification level or at a public provider. The 65 percent attrition rate for private providers compares with 54 percent for public providers.

Both retention and completion at undergraduate and postgraduate diploma level is significantly higher in private providers than public providers. In particular, at postgraduate diploma level, where 90 percent of students starting at this level had either completed or were still studying in 2002. This rate compared with 49 percent for students in public providers at this level, and reflects the focussed nature of postgraduate diploma study taught at private providers. There were around 900 students

starting a postgraduate diploma at a private provider in 2000 compared with 6,700 at public providers.

For the purposes of this report, much of the remaining discussion in this section will focus on retention rates for a particular cohort of students. The group used is those domestic students starting a new qualification level at a public provider in 1998. This is the earliest year for which sufficiently reliable data is available and which provides the longest time series (five years) with which to measure retention and completion.

Qualification Level

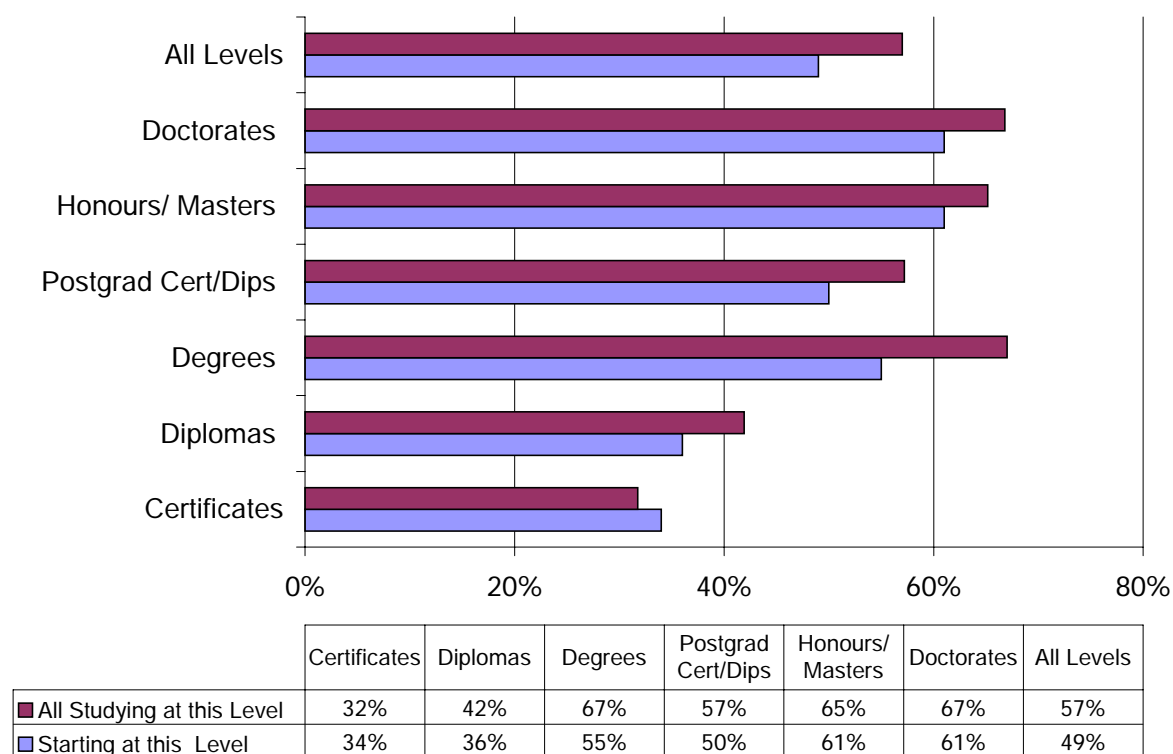
Rates of retention (and therefore attrition) vary naturally according to the level of the qualification and the number of years required to complete a qualification. Students who temporarily stop studying and re-enrol in later years also affect retention.

This analysis focuses on the 1998 cohort of domestic students who started a new qualification level in that year. This is the earliest year for which sufficiently reliable data is available across all levels and providers, and which is sufficiently long enough ago that we may expect the majority to have now left study. For doctorate level study, earlier years are also included, to provide longer time series comparisons.

In 1998, there were approximately 263,000 domestic students enrolled at public providers. Of these an estimated 135,000 were starting at a new qualification level.

The following graph and table show the percentage of both these groups which had successfully completed or were still enrolled after five years, that is, after 2002.

Figure 5: Five-year retention rates by qualification level for all domestic students starting a qualification at a public provider in 1998



All Levels include students who change qualification level whereas rates for individual levels do not.

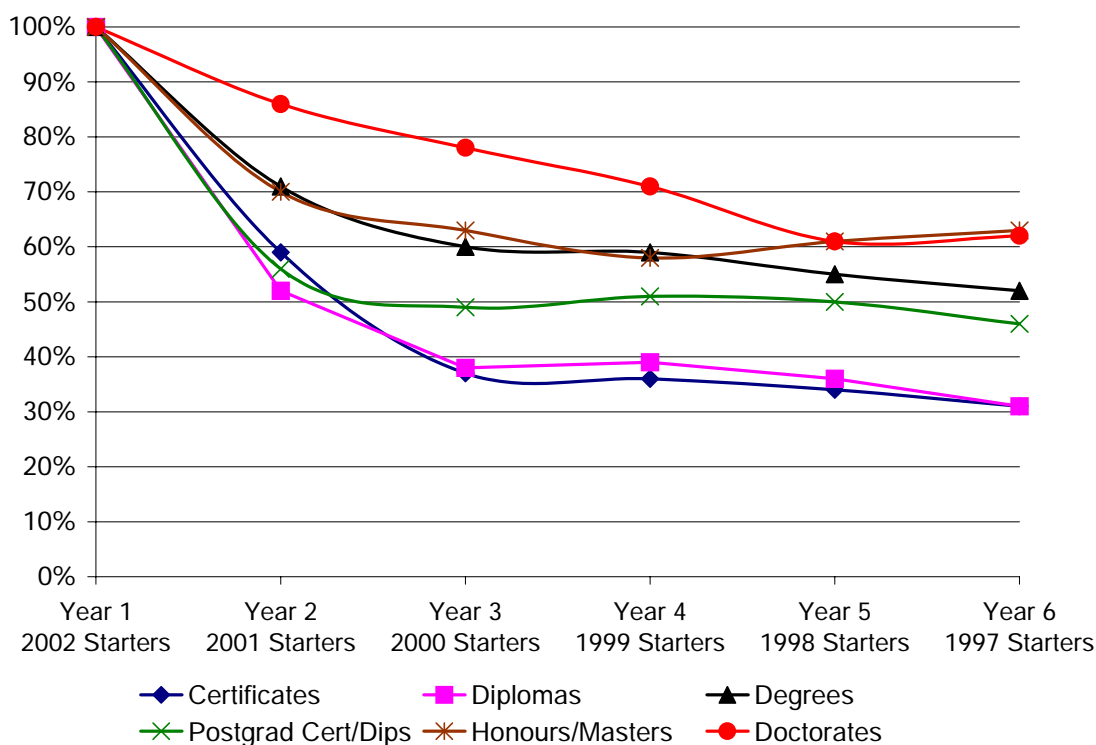
Retention increases as the qualification level increases. At postgraduate level, this indicates that students who can complete graduate work, are more likely to complete postgraduate level study, even though the requirements are higher.

At certificate and diploma level, proportionately more students are part-time or working students, and a higher proportion enter study with low or no school qualifications. This may partly explain why retention is lower at sub-degree level.

The graph shows higher completion rates for those starting certificates in 1998, than for all students studying certificates in 1998. Conversely, completion rates for those starting diplomas in 1998 were lower than the rate for all students. This may indicate a transfer effect where some students starting certificates end up completing diplomas or degrees.

In addition to five-year retention, it is interesting to look at retention by number of years studied. The following graph shows the retention rate in 2002, for each of the groups of domestic students who had started at a new qualification level in the six years from 1997 to 2002. That is, retention in year 1 for 2002 starting students, retention in year 2 for 2001 starting students, through to retention in year 6 for 1997 starting students. While this combines rates for different cohorts of students, it does allow the latest available retention rates to be used.

Figure 6: Retention rates for domestic students at public providers by qualification level and year of study, 1997-2002



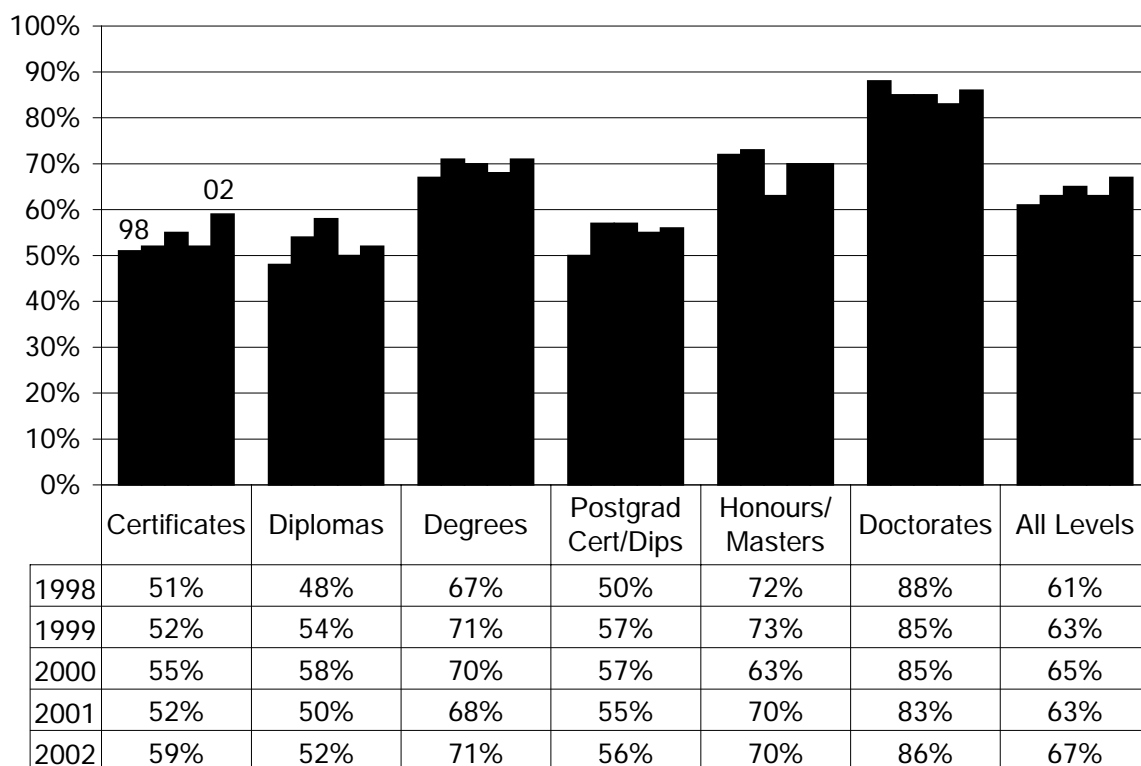
Note: Year 1 relates to students starting a new qualification level in 2002, Year 2 to 2001, Year 3 to 2000, Year 4 to 1999, Year 5 to 1998 and Year 6 to 1997.

As might be expected, retention rates for certificate and diploma level study fall more rapidly, and flatten sooner, as most students either complete, progress or drop out after one or two years. Conversely, retention falls more gradually for degree, honours/masters and doctorate level study. Also, retention at higher levels flattens out above sub-degree level study, again indicating better retention at higher levels.

The following graph shows one-year retention rates from 1998 to 2002, that is, the percentage of domestic students who started study at a new qualification level in that year who were still enrolled or had completed by the following year.

All things being equal, the graphs indicate 4 to 8 percent gains in retention at levels below honours/masters between 1997 and 2002. However, the sector has changed significantly since 1998. In particular, the mix between part-time and full-time study, the age profile of students, and the mix of provider types has changed. Further, the growth of wānanga since 2001 will impact on trends over time. As these rates have not been adjusted for any of these factors, care should be used when interpreting trends from these figures.

Figure 7: One-year retention rates for domestic students starting a qualification at a public provider between 1998 and 2002 by qualification level



All Levels include students who change qualification level whereas rates for individual levels do not.

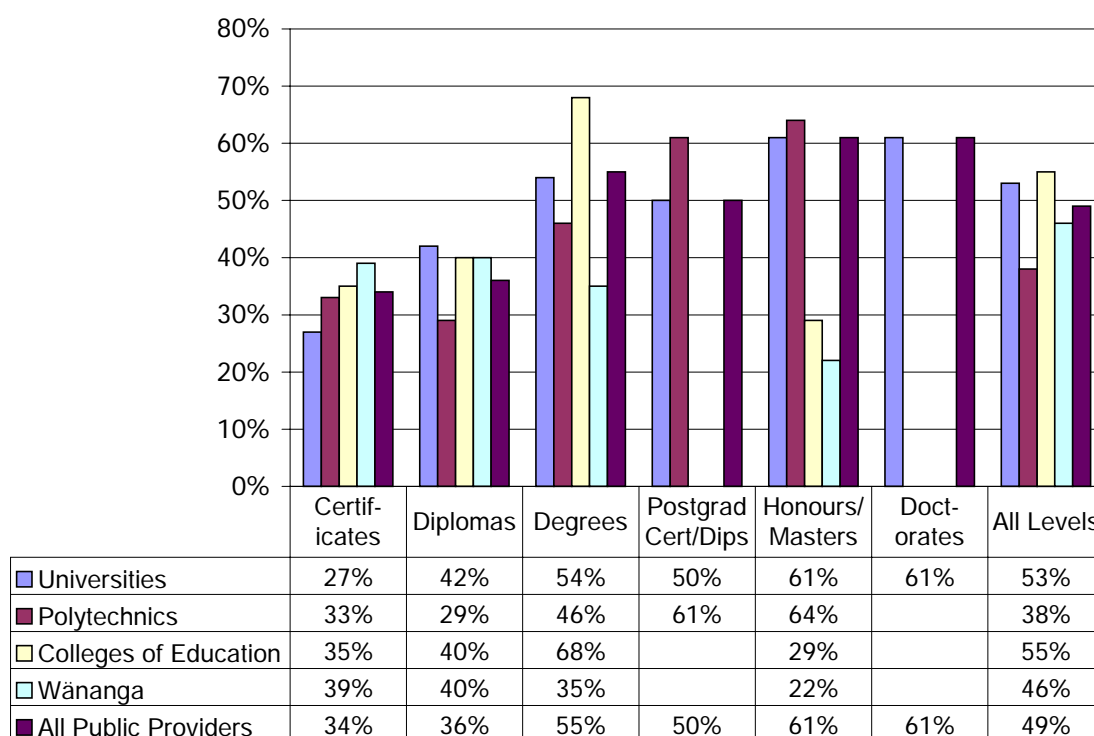
Sub-Sector

Caution is needed in interpreting comparisons at sub-sector level, because of the nature of qualifications offered between sub-sectors. For example, a diploma offered at a university may, in many cases be quite different from a diploma offered at a polytechnic, even though they are at the same level. The same applies to postgraduate certificates or diplomas.

Also the different academic, demographic characteristics and educational backgrounds of the students undertaking study in different sub-sectors will affect the rates at which study is successfully completed. Adjustment for such differences has not been attempted here.

In addition, the data used in this report does not capture a number of qualification completions where the student has been enrolled at a tertiary institution, but where the qualification has been awarded by a non-institution organisation (for example, NZQA or an ITO). This will tend to under-represent retention rates at in particular, polytechnics and private providers.

Figure 8: Five-year retention rates for domestic students starting a qualification at a public provider in 1998 by qualification level and sub-sector



All Levels include students who change qualification level whereas rates for individual levels do not.

In comparing rates by sub-sector, it is useful to note that the numbers starting at each qualification level vary significantly. For example, there were 29,200 domestic students starting degrees at a university in 1998. This was 76 percent of all degree starters and compares with 7,900 at polytechnics, 1,300 at colleges of education and 190 at wānanga. Similarly, postgraduate rates at polytechnics, colleges of education and wānanga are based on less than 350 students, or less than three percent of all starting postgraduate students.

Wānanga had the highest retention rates at certificate level, although colleges of education had the highest rates of certificate completion for these 1998 students. Universities had both the lowest rates of retention, and lowest rates of completion at certificate level, but the highest rates of retention at diploma level. This may indicate that a number of students are starting certificates at universities but completing diplomas or degrees.

At degree level, colleges of education have the highest retention and completion rates, while wānanga and polytechnic students are 1.5 times and 1.2 times respectively more likely to drop out than university students.

In terms of both retention and completion, polytechnics have the highest rates at postgraduate certificate and diploma level, reflecting the specialised focus of many of the qualifications offered at this level.

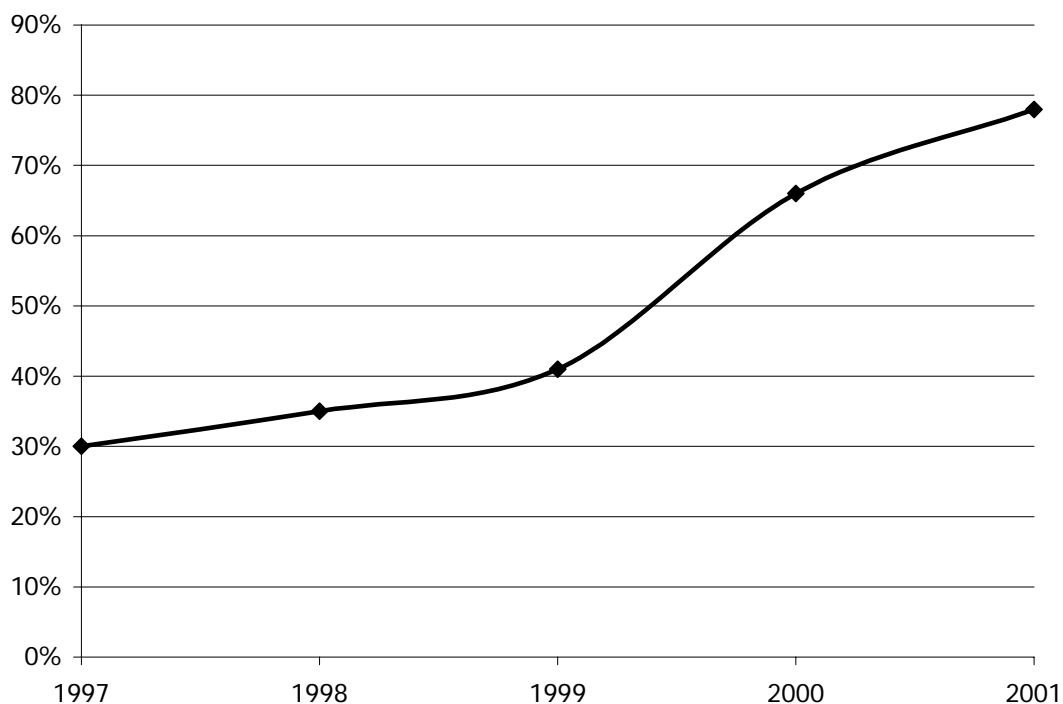
The following table looks at trends in one-year retention by each sub-sector for selected qualification levels – namely those levels which the sub-sector predominantly provides, or those where the majority of provision is from that sub-sector.

Figure 9: One-year retention rates for selected qualification levels and sub-sectors for domestic students starting a qualification at a public provider between 1997 and 2001

	1997	1998	1999	2000	2001
Certificates (Wānanga)	30%	35%	41%	66%	78%
Certificates (Polytechnics)	56%	56%	60%	54%	58%
Diplomas (Polytechnics)	49%	56%	59%	53%	53%
Diplomas (Colleges of Education)	61%	43%	61%	39%	45%
Degrees (Colleges of Education)	75%	76%	80%	77%	74%
Degrees (Universities)	67%	70%	69%	66%	72%
Honours/Masters (Universities)	52%	56%	57%	57%	57%
Postgraduate Cert/Dips (Universities)	72%	73%	64%	70%	71%
Doctorates (Universities)	88%	85%	85%	83%	86%

The table shows significant gains in retention for certificate level study at wānanga (90 percent of all students at wānanga were studying at certificate level in 2002), with moderate gains or falls elsewhere. There has been a significant growth in students enrolling in certificates at wānanga since 2001, and significantly more of them are being retained than was the case five years earlier. This growth mostly represented market expansion, rather than demographic growth or redistribution of existing students,¹⁶ and hence in part, reflects new types of students coming in.

Figure 10: One-year retention rates for domestic students starting certificates at wānanga between 1997 and 2001



Ethnicity

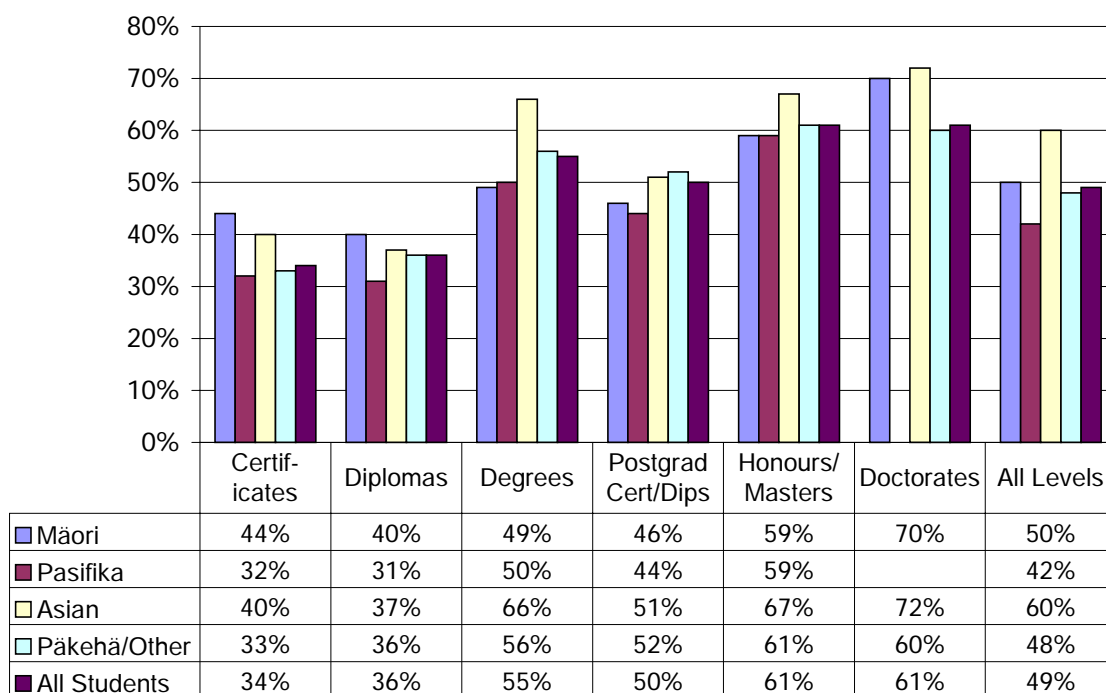
While Asian students have the highest completion rates over all levels of study, Māori have the highest rates of retention, and therefore lowest attrition at levels below degree level. At degree level however, Māori retention is the lowest – 51 percent have neither

¹⁶ See Ministry of Education (2003) *Participation in Tertiary Education 2003*.

completed nor are still enrolled after five years, 7 percent lower than Pākehā/Other students, and 17 percent lower than Asian students.

Pasifika rates of retention are the lowest of any group. Their retention rates at certificate level are similar to Pākehā/Other students, but 11 to 12 percent lower than those of Māori students at this level. At degree level, Pasifika students' retention is similar to Māori students.

Figure 11: Five-year retention rates for domestic students starting a qualification at a public provider in 1998 by ethnic group and qualification level



All Levels include students who change qualification level whereas rates for individual levels do not.

Based on domestic students starting at a new level in 1998, Māori are more likely to persist in certificate level study at a wānanga or polytechnic (1.9 and 1.7 times the university rate). Retention rates for Māori at diploma level are slightly higher at university (polytechnic, college of education and wānanga rates are between 0.8 to 0.9 of the university rate).

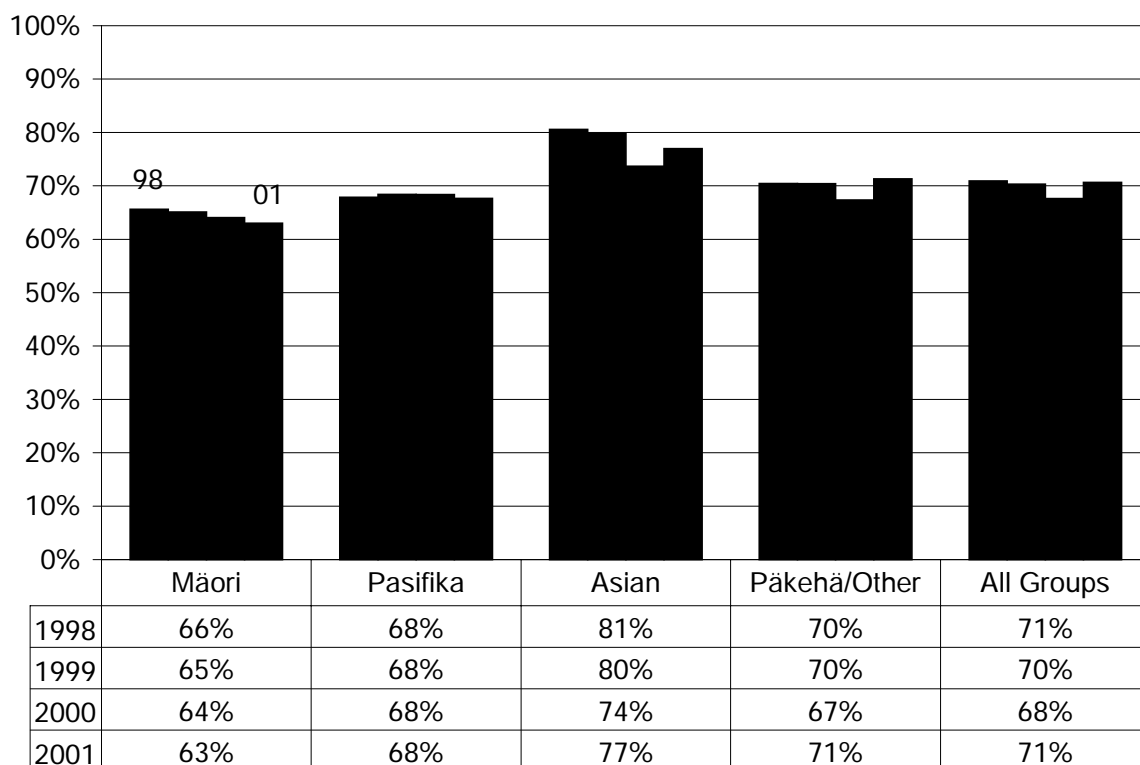
However at degree level, Māori are more likely to be retained in a degree at a college of education (1.3 times the rate of universities, 1.5 times the rate of polytechnics, and 1.7 times the rate at wānanga). At postgraduate levels, Māori predominately study at university.

Similarly, 1998 Pasifika students were 1.3 times more likely to be retained in certificate level study at a polytechnic, than at a university, but only half as likely to be retained in certificate level at a wānanga.

Retention of Pasifika students at diploma level was similar for universities and polytechnics, but retention at degree level was higher at universities, and colleges of education (see table 9).

The following graph shows retention after one year at degree level for the years 1998 to 2001. From this can be seen relatively constant trends in retention, with a possible slight fall for Asian and possibly Māori over time. The overall percentage of students who have dropped out of degree level study after one year has remained relatively constant at 29 to 30 percent.

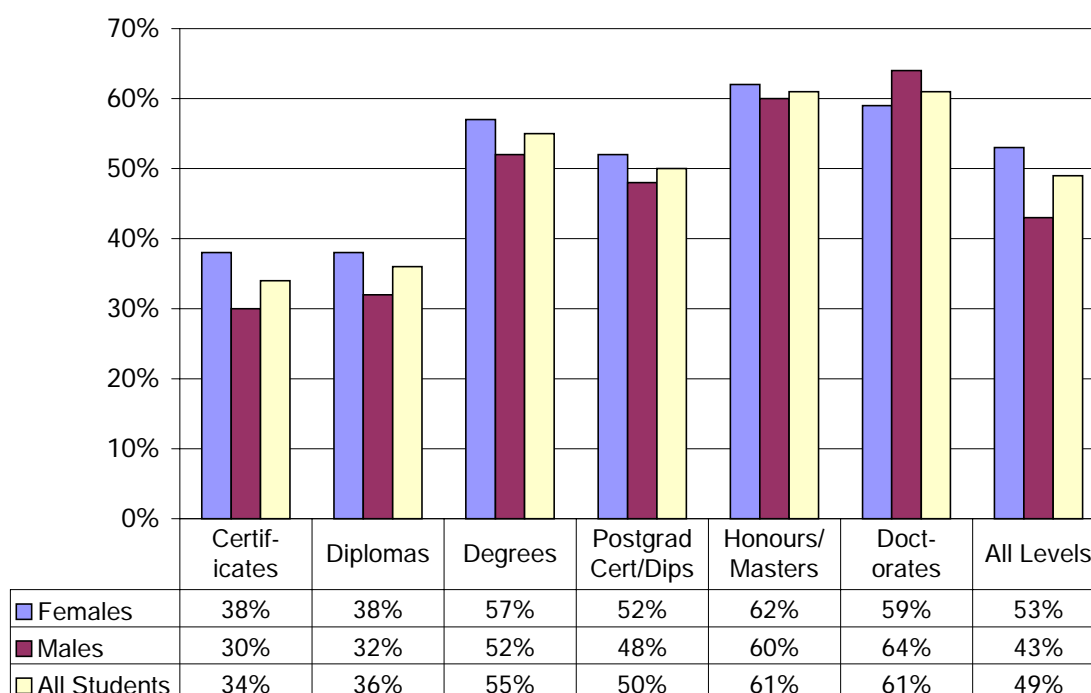
Figure 12: One-year retention rates for domestic students starting degrees at a public provider between 1998 and 2001 by ethnic group



Gender

Between five and eight percent fewer women drop out than men at degree level and below, consistent with higher completion rates for women (between six and nine percent fewer men complete than women). However, the gap narrows at postgraduate level.

Figure 13: Five-year retention rates for domestic students starting a qualification at a public provider in 1998 by gender and qualification level



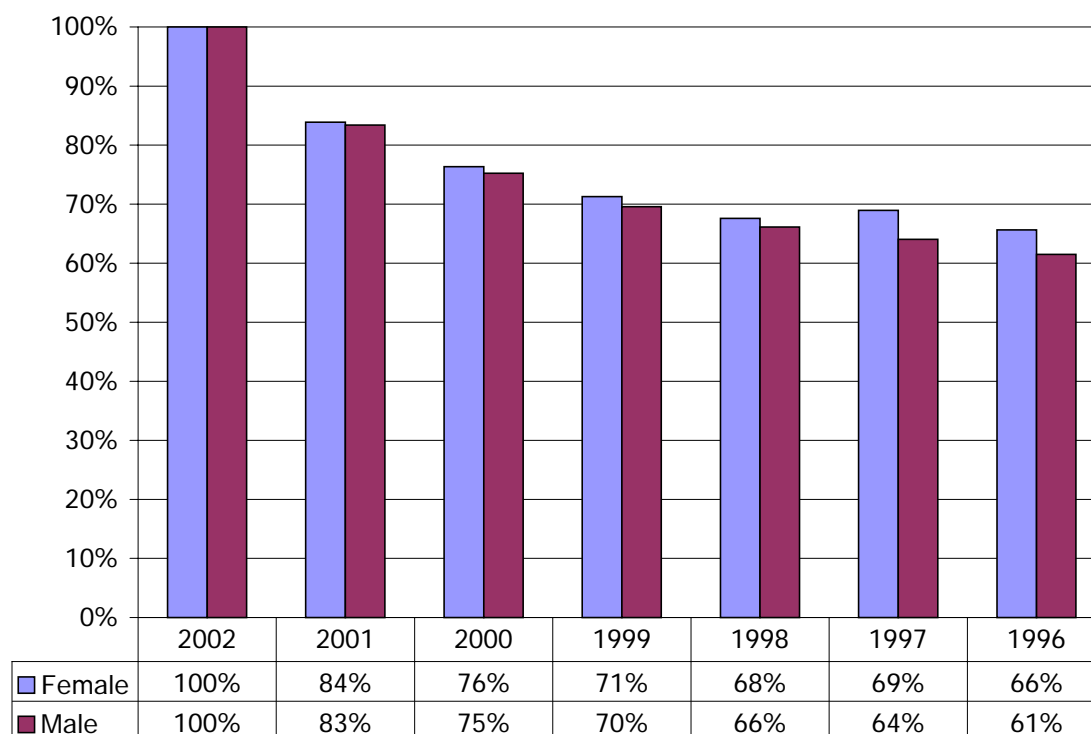
All Levels include students who change qualification level whereas rates for individual levels do not.

Doctorate completion rates are still rising after five years of study (eg from 26 to 39 percent from five to six years). Because of the longer-term nature of doctorate study, it is interesting to estimate longer-term doctorate retention rates for men and women, than the 1998 cohort above provides.

The following graph plots doctoral retention rates in 2002 (the latest data available) for all domestic students for the years they were studying at that level, and regardless of when they started. That is, retention in year one for all students studying doctorates in 2002, retention in year two for 2001 doctorate students, through to retention in year six for all students studying doctorates in 1997. While this combines rates for different cohorts of students, it does allow the latest available estimates of longer-term retention rates to be compared for men and women.

These figures show higher retention for women than men. The analysis of completion rates for men and women in the next chapter, which showed similar male and female long-term completion rates, indicates that women in general take longer to complete, but still complete at a similar rate to men.

Figure 14: Percentage of all domestic students studying doctorates in a year who are enrolled in or have completed by 2002, by gender



Age

In general, younger students have higher rates of retention (and lower rates of attrition) than older students. Students under 25 have higher retention rates across all levels, in particular at degree level, where students 25 and over are 1.3 to 1.4 times more likely to leave study without completing than for students aged between 18 and 24.

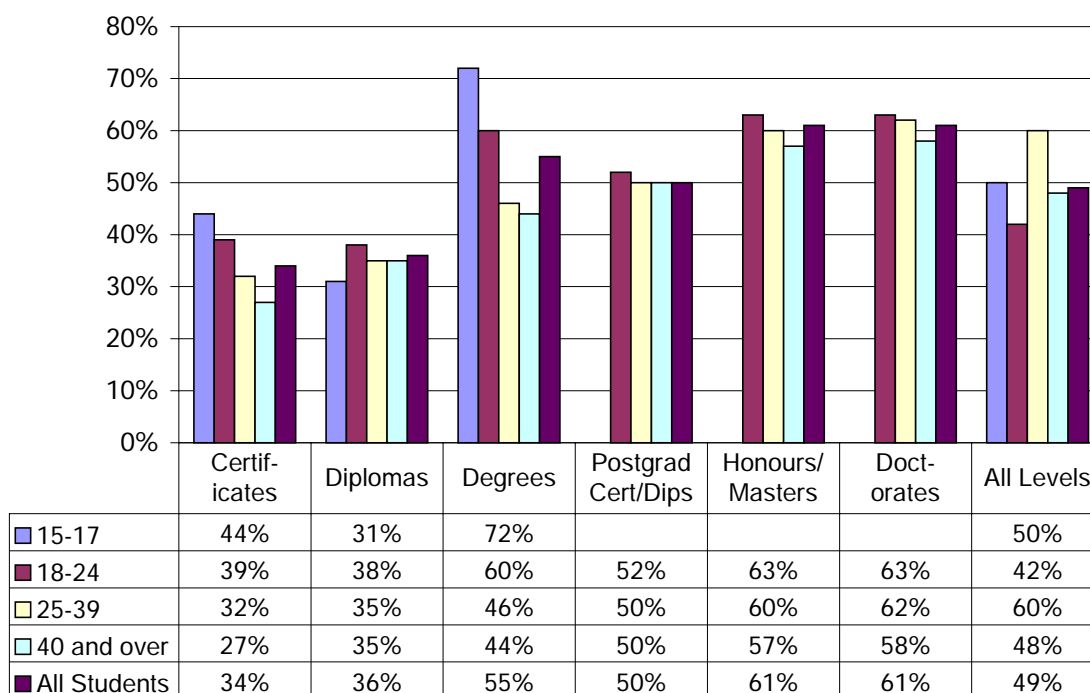
However, at both undergraduate and postgraduate diploma level, the difference is much less, and the rate of attrition is similar across all age groups 18 and over. At both these levels as well as doctorate level, a much higher proportion of students are aged 25 and over. The higher retention rates at older ages for these qualifications may in part reflect the fact qualifications at this level are often pitched to older students.

Figure 15: Percentage of domestic students starting a qualification at a provider in 1998 under and over 25 by qualification level

Qualification Level	Under 25	25 and over
Certificates	41%	59%
Diplomas	35%	65%
Degrees	63%	37%
Postgraduate Certificates/Diplomas	26%	74%
Honours/Masters	52%	48%
Doctorates	24%	76%
All Levels	46%	54%

All Levels include students who change qualification level whereas rates for individual levels do not.

Figure 16: Five-year retention rates for domestic students starting a qualification at a public provider in 1998 by age group and qualification level



All Levels include students who change qualification level whereas rates for individual levels do not.

4 Completion

Concept & Definition¹⁷

Completion is useful as a measure of the rate of production of qualifications from New Zealand's tertiary education system, and hence as an indicator for the rate of a country's skills acquisition.¹⁸ Completion also provides an indicator of the internal efficiency or quality of the tertiary education system. Having said this, it should be recognised that there are many factors outside of the tertiary education system that will impact on outcomes, and that concepts of retention and completion are not always good markers of quality, and need to be read in the context of other indicators.¹⁹

In this report, the term 'completion' is refers to successful completion of a *qualification*, rather than a *course*.²⁰ Information on completion at course level in tertiary education in New Zealand became available from 2002. This has significantly enhanced the ability to analyse retention and completion at course level, and one-year retention and completion rates at course level are now being analysed.²¹ Course completion rates will generally be much higher than qualification completion rates, as most qualifications will require the successful completion of a large number of courses to qualify the student. Further, lower completion rates in a qualification may not mean that learning is wasted, for example when courses passes are cross-credited to another qualification. The same, however, does not always hold at course level.

In the wider context, students successfully complete courses at a much higher rate than qualifications, and many leave study (in particular, in times of higher employment), with only one or two courses left to complete for their qualification. Other students will enrol for a qualification, but abandon it once they have met their objectives, which may be passing only two or three courses. To that extent, if a high proportion of students do not complete their qualifications, this can not necessarily be read as a system failure.

New Zealand's lifelong approach to tertiary learning, relatively open access to enrolment, and easy access to student loans, have tended to increase the number of students with a focus on part-time course-based study, and those trying to combine work with study. This is borne out in other countries, which have higher academic entry requirements, more full-time study, and less access to student support. Recent statistics in Britain show that the institutions with the highest drop-out rates were also the ones that generally excelled at attracting students from under-represented groups.²² That is, completion goals can not be viewed in isolation from access goals.

The discussion below follows various groups of students, and looks at what percentage of them successfully complete a qualification over time.

¹⁷ For more information on this concept refer to See *Measuring Retention, Completion & Progression in Tertiary Education, A Discussion Paper*, (Ministry of Education (2004).

¹⁸ Recognising that many people acquire skills without completing a tertiary qualification.

¹⁹ OECD (2002). *Education at a Glance, OECD Indicators 2002*, page 40.

²⁰ A qualification is made up of one or more courses. For example, a bachelor's degree is one qualification, comprising a number of courses or papers. A course is typically of one year duration or less, whereas a qualification may span more than one year.

²¹ For example, by the Tertiary Education Commission as part of its role in monitoring private providers.

²² The Times Higher Education Supplement, No. 1,619, December 12, 2003.

For this report, rate of completion is defined as follows: suppose we have a group or cohort of students, G , and after year i , a number have completed, C_i , then the completion rate c_i for cohort G after i years is:

$$c_i = C_i/G * 100$$

In this definition of completion, as for retention, the cohort group is kept the same over time. The definition of cohorts is important, as the completion status for a student will change depending on the definition of the cohort. For example, a student starting a certificate, but completing a degree *will be counted* as completed when the cohort of interest is all students starting any qualification, but *will not be counted* as completed when the cohort of interest is those students starting certificates. In particular, completion rates for all starting (ie first-time) students will be different from completion of all students starting a new qualification level.

In this definition, all rates include adjustments for transfers between institutions. When rates are calculated by sub-sector, they will include transfers between institutions in that sub-sector only. Rates by whether in public or private providers only include transfers between public or private institutions respectively.

Also in this definition, completion rates will vary over time. Many students take longer than the minimum time to complete a qualification, as they study part-time or fail courses and repeat, or take a break and come back later. Under this definition, rates have *not* been adjusted for breaks from study. That is, all rates are based on actual elapsed years, rather than years in study (ie minus years off).

This is important in interpreting rates, as completion rates after a 'normal' period of study for a qualification (eg three years for most degrees) will under-represent true or final completion rates for those students who have taken a break or studied on a part-time basis. In this report, rates are displayed in most cases at five years after starting study, (six years for doctorate students). However, a small proportion of such students may return to complete after this period.

Past completion and re-enrolment rates can be used to infer something about future re-enrolment and completion rates for current students and those taking a break. However, in this report, rates are presented as actual rates using the years for which data is available. Eventually, as all students either complete their qualification or finally stop studying, the retention rate for this cohort will equal the completion rate.

In Australia and the UK, estimates of *final* completion rates are reported. These are estimates of what proportion will *ultimately* complete in the future. In the United States, completion rates are reported as in this report, ie in terms of years after commencement.

The Department of Education, Science and Training in Australia (DEST) estimate final completion rates, by using past rates at which students who leave study come back and complete later, to statistically adjust current completion rates.²³ An estimate of final completion rates is not done in this report. Instead cumulative actual rates are reported year by year for the years for which reliable data is available (1997 to 2002).

²³ See eg *Undergraduate Completion Rates: An Update*, DEST (December 2001) www.detya.gov.au

Completion rates vary with a number of factors that should be considered in making comparisons, the most obvious of which is the type and length of qualification. A provider offering predominantly one-year certificate level qualifications could be expected to have higher completion rates after two years of study than a provider offering more degree level qualifications. This makes two-year completion rates involving all qualification levels between private providers and universities therefore much less meaningful.

The different standards of the accrediting bodies will also affect completion rates, as will the many different academic and demographic characteristics of the students undertaking the study.

In most tables and graphs in this report, rates have been disaggregated by qualification level. However, no attempt has been made to adjust rates by qualification level or other variables. In this sense care is needed when making fair comparisons as other confounding factors will be involved.

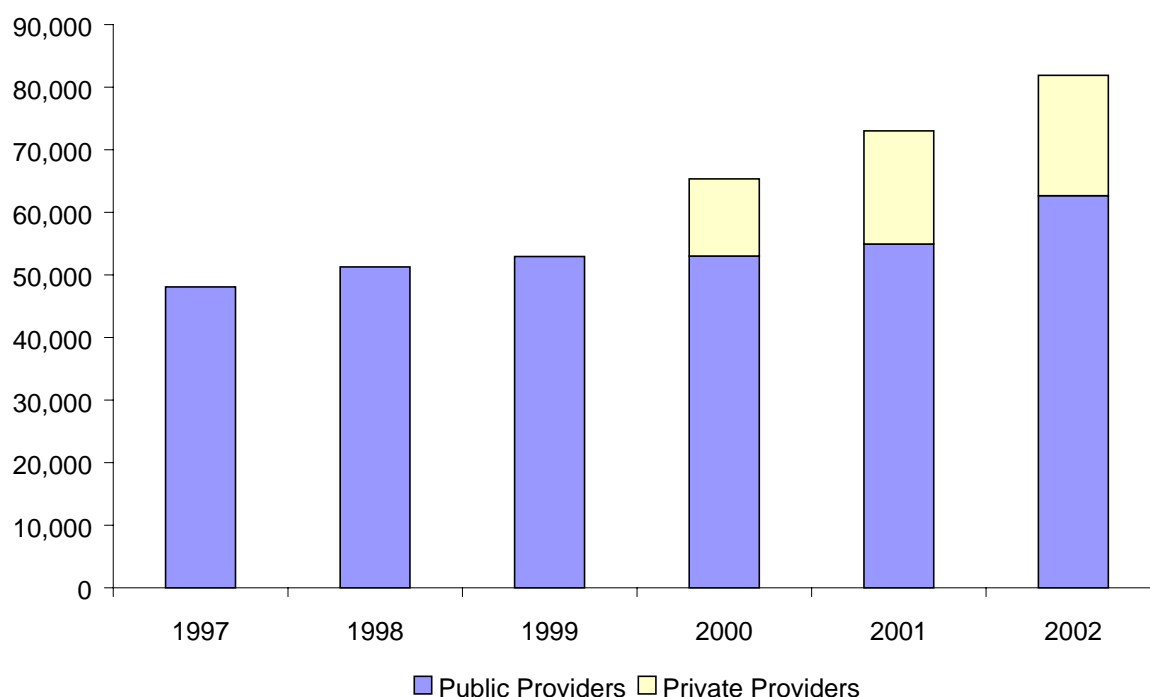
Total Completion

The number of qualifications completed in 2002 was 89,760, up 12 percent from the 79,700 completions in 2001.

The number of completions in public providers has increased from 50,520 in 1997 to 69,280 in 2002. Growth was relatively slow up to 2001, but with the increase in students at wānanga, the number of completions jumped from 59,680 in 2001 to 69,280 in 2002, an increase of 16 percent. Around 94 percent of completions over the five-year period were by domestic students, but the number of international students completing has grown at a faster rate than that of domestic students. International student completions almost tripled, from 2,410 to 6,580 completions between 1997 and 2002, whilst completions by domestic students rose from 48,100 to 62,690 over the same period. This reflects the very considerable rate of growth in international students over this time.

In 2002, 20,480 students completed a qualification through a private provider, up from 13,075 in 2000 and 20,021 in 2001. The number of international students completing qualifications with private providers jumped from 716 to 1,955 between 2000 and 2001, but dropped away to 1,266 in 2002.

Figure 17: Number of completions at public providers for 1998-2002, and at private providers for 2000-2002



	Public Domestic	Public International	Public Total	Private Domestic	Private International	Private Total	Total
1997	48,100	2,410	50,520				
1998	51,270	2,350	53,610				
1999	52,950	2,700	55,660				
2000	53,010	3,410	56,430	12,360	720	13,080	69,500
2001	54,960	4,720	59,680	18,070	1,960	20,020	79,700
2002	62,690	6,580	69,280	19,210	1,270	20,480	89,760

All numbers are rounded to the nearest 10. Totals may not therefore add due to this rounding.

In any year, around one in five students (21 percent) complete the qualification they are studying. A year later, around one in three (32 percent) of these students will have completed, and by two years later, two in five (41 percent) have completed.

These rates include all students regardless of whether they are in their first or last year of study. For first-time students 17 percent of formally enrolled students will complete a qualification in that year. About one in four will complete a year later, and around 30 percent two years later. After five years, around 40 percent of all first-time students will have successfully completed a qualification.

Completion rates for all students, that is, both those starting and those continuing study at a particular level, are naturally higher than for just those who are starting study at that level. The first measure provides a better estimate of a final completion rate, while larger differences between the two rates reflect a longer period required to complete a qualification at that level.

These figures include international students who make up about nine percent of all students. International students have higher rates of completion than domestic students. Proportionately more international students starting a qualification will have completed

it within three years (33 percent compared with 29 percent for 2000 international and domestic students respectively). This result is unsurprising, as international students are much less likely to be studying on a part-time basis. Students who decide to travel to New Zealand and pay full tuition are likely to be more motivated to complete than the general domestic student population.

First-time students however, represent only about a third of all students. For those domestic students starting at a new qualification level in 2000, regardless of whether they were first-time students or not, completion rates for all providers were:

Figure 18: Completion rates by qualification level for all domestic students starting a qualification in 2000

Level Started in 2000	Students starting at this level	Percentage successfully completed by end of		
		2000	2001	2002
Certificates	90,760	21%	26%	28%
Diplomas	32,590	15%	25%	30%
Degrees	39,200	4%	7%	23%
Postgrad Cert/Dips	7,230	30%	43%	49%
Honours/Masters	5,910	18%	36%	50%
Doctorates	840	1%	2%	4%
Any Level	176,530	16%	23%	29%

Includes public and private providers.

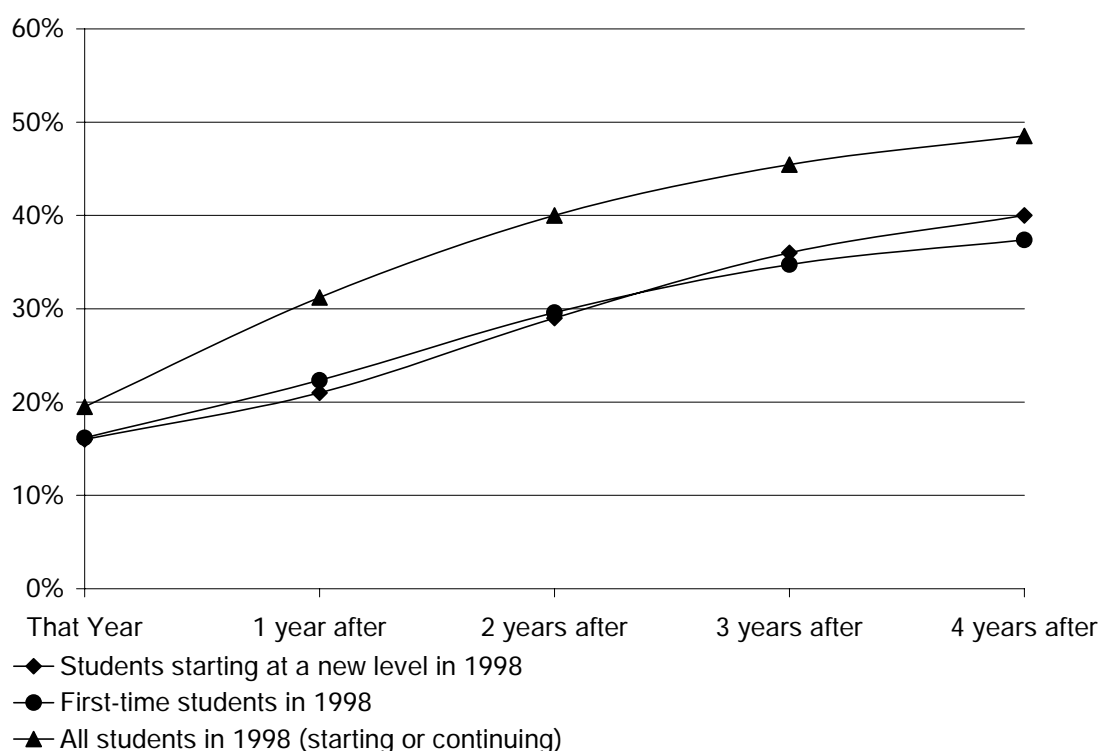
All numbers are rounded to the nearest 10. Therefore totals may not add due to this rounding.

Students are counted in each level they were enrolled in, hence the total will overcount the actual number of students starting a qualification.

All Levels include students who change qualification level whereas rates for individual levels do not.

Longer-term completion rates are available for public providers. Five-year completion rates for 1998 domestic students are shown below.

Figure 19: Completion rates for 1998 domestic students at public providers



Domestic Students at Public Providers in 1998	That Year	1 year later	2 years later	3 years later	4 years later
Students starting a new level in 1998	16%	21%	29%	36%	40%
First-time students in 1998	16%	22%	30%	35%	37%
All students in 1998 (starting or continuing)	19%	31%	40%	45%	49%

Completion rates for all students, that is, both those starting and those continuing study at a particular level, are naturally higher than for just those who are starting study at that level. The first measure provides a better estimate of a final completion rate, while larger differences between the two rates reflect a longer period required to complete a qualification at that level.

Most of the remaining discussion in this chapter will focus on students starting at a new level of qualification, regardless of whether they are new to tertiary or not.

Public and Private Providers

Completion data for private providers is available from 2000. The data is limited only to those providers receiving funding under the EFTS-based tuition subsidy scheme, or who offered courses approved for student loans and allowances. This represents around 48 percent of all private providers offering formal qualifications and between 75 to 80 percent of all students studying formal qualifications in private providers.

Private providers predominately offer lower level qualifications requiring either one or two years to complete. For example, 97 percent of all students in private providers in 2002 were studying certificate level or diploma level qualifications, compared with 59 percent of students in public providers. There were around 560 domestic students starting degrees in private providers in 2000, compared with 38,780 in public providers.

Completion rates will be artificially lowered due to reporting practices in some providers where a student studies courses at several providers, and where passes in the aggregate of all these courses is recognised as a qualification by NZQA, but not reported by any single provider. This will affect certificate level study, and to a lesser extent diplomas, and will occur more commonly at polytechnics and private providers. However, the level of this under-measurement is thought to be small. There is also thought to be a degree of under-reporting of completions of qualifications involving masters theses and PhD dissertations.

Because of these data issues, the different mix of provision, and because of the short period of data available to do comparisons, caution is needed when inferring information from these comparisons.

Figure 20: Three-year completion rates by qualification level for domestic students starting a qualification in 2000

Level Started in 2000	Percentage of Students Successfully Completed by end of 2002					
	Public		Private		All	
	#	%	#	%	#	%
	Starting	Completing	Starting	Completing	Starting	Completing
Certificate	58,410	28%	35,930	28%	90,760	28%
Diploma	24,850	26%	8,280	41%	32,590	30%
Degree	38,780	22%	560	41%	39,200	23%
Postgrad Cert/Dips	6,710	41%	900	90%	7,230	49%
Honours/Masters	5,830	50%	80	34%	5,910	50%
Doctorate	840	4%			840	4%
All Levels	135,420	27%	45,750	32%	176,530	29%

Students are counted in each level they were enrolled in, hence the total will overcount the number of students starting a qualification. In the 'All' column, however, a student enrolled in both a public and a private provider has only been counted once. Hence public provider and private provider student totals will not equal the total provider student total. *All Levels* include students who change qualification level whereas rates for individual levels do not.

While *completion* rates are higher in private providers than public providers at most qualification levels, *retention* is higher in public providers at all qualification levels apart from diplomas. That is, while more students complete after three years in private providers, more are still studying at public providers. After five years of study, completion rates in public providers exceed those of private providers as shown above. However, no data is available on five-year completion or retention rates for private providers.

Completion rates for diplomas in public providers settle at around 32 percent five years after starting, still below diploma completion rates in private providers. Similarly, an estimated 90 percent of the 900 students starting postgraduate certificates or diplomas in private providers had successfully completed after three years, compared with around 45 to 50 percent of the roughly 6,000 students at this level in public providers.

Caution is needed in interpreting comparisons between public and private providers because of the nature of qualifications offered between public and private providers. For example, a diploma offered at a university may, in many cases be quite different from a diploma offered at a private provider, even though they are at the same level.

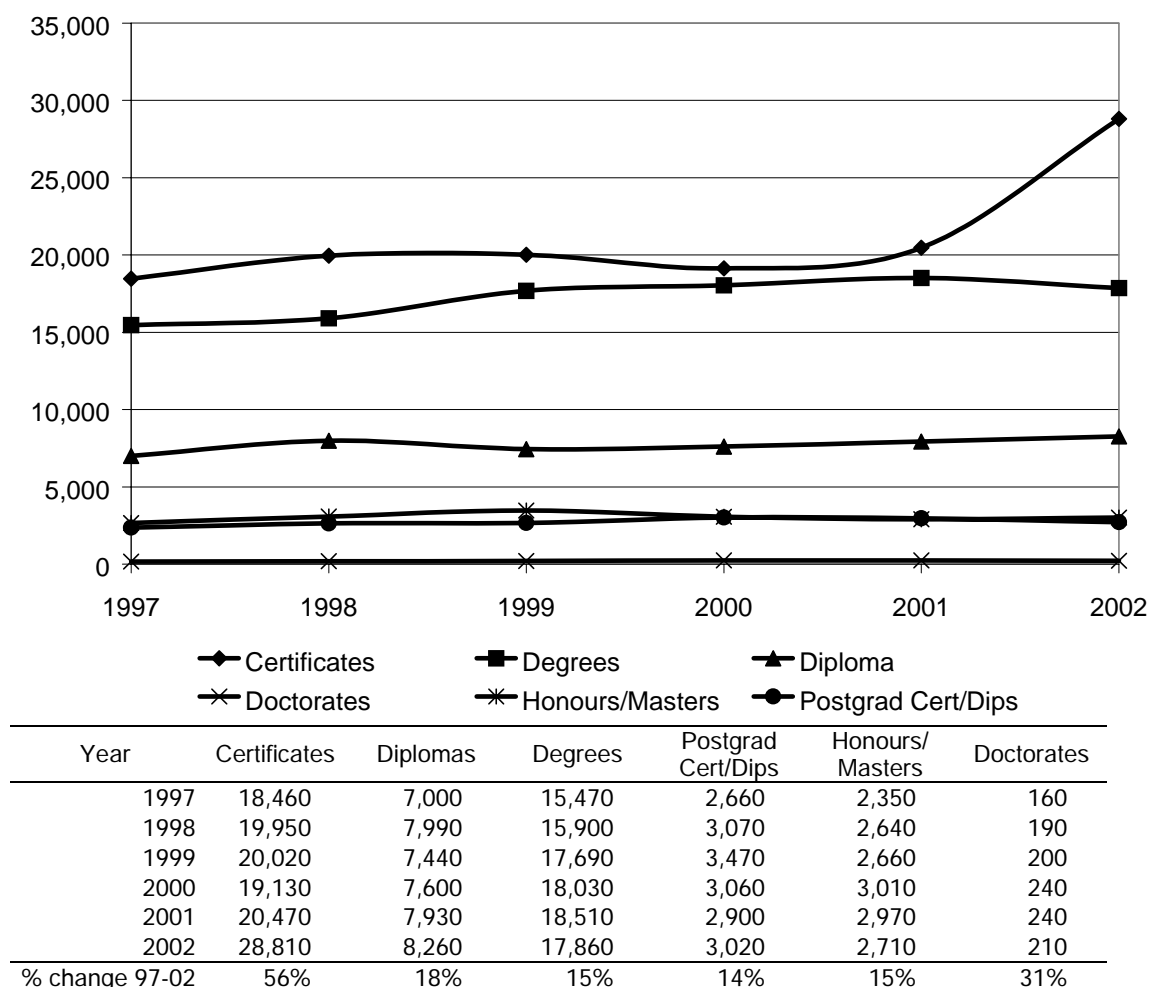
The discussion in the rest of this section will mainly focus on completion rates for a particular cohort of students, those domestic students starting at a public provider in 1998 and their completion status five years later, in 2002.

Qualification Level

The number of domestic students completing qualifications with public providers increased at each qualification level between 1997 and 2002, but most of the overall growth in completions (70 percent) can be attributed to the rise in students completing certificates between 2001 and 2002. This reflects the significant rise in enrolments at this level, in particular due to growth in wānanga. Certificates were the most common type of qualification awarded in 2002 (28,810 students), followed by degrees (17,860) and diplomas (8,260). The number of doctorates completed was small (210) but percentage growth in this area has been higher than for other qualifications apart from certificates.

Most qualifications completed through private providers are at certificate or diploma level. In 2002, 14,720 certificates and 3,410 diplomas were completed through private providers, whilst only 950 completions at private providers were at degree level or higher.

Figure 21: Number of completions for all domestic students at public providers by qualification level, 1997-2002



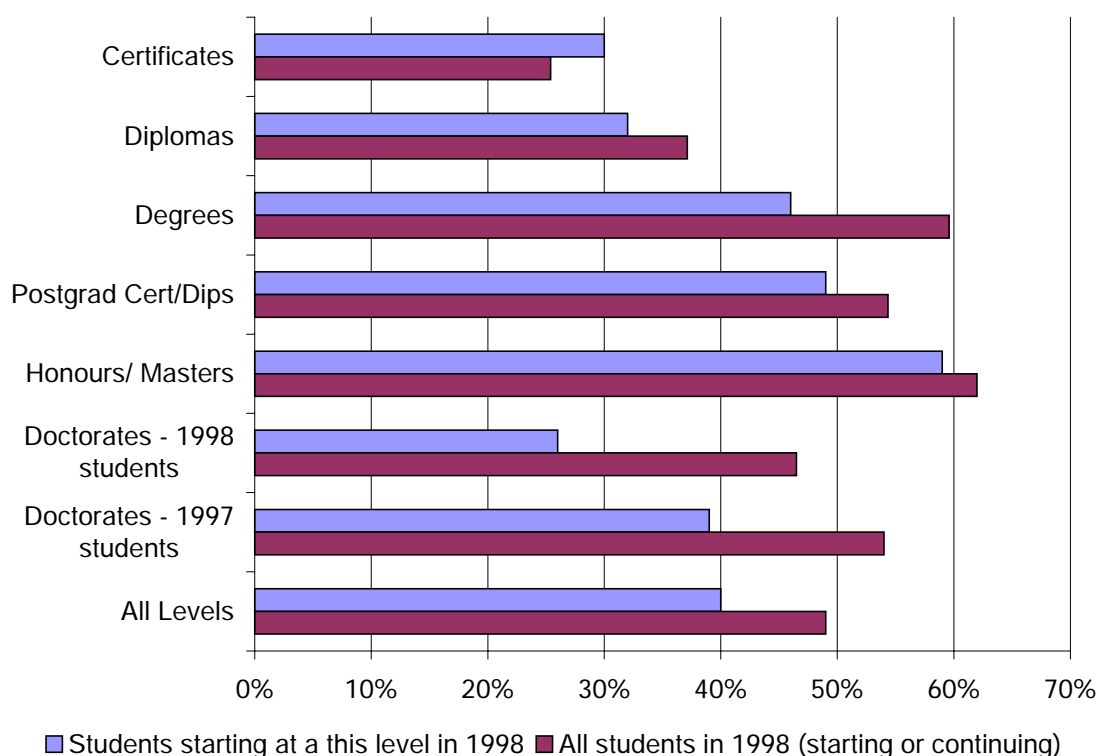
All numbers are rounded to the nearest 10. Therefore totals may not add due to this rounding. Students are counted in each level they were enrolled in.

Completion rates naturally vary according to the type and length of the qualification. In order to estimate final completion rates for different types of qualification, we can analyse what happened to a particular cohort of students who began that qualification long enough ago that the majority of the cohort has now left study. The earliest year for which sufficiently reliable data is available is the 1998 cohort.

In 1998, there were approximately 263,000 domestic students enrolled at public providers. Of these, an estimated 135,000 were starting at a new qualification level.

The following graph and table show the percentage of both these groups that had successfully completed a qualification after five years of study, that by the end of 2002. Because of the nature of doctorate study, estimates of completion after six years are also provided using the 1997 cohort.

Figure 22: Five-year completion rates by qualification level for all domestic students and starting domestic students at a public provider in 1998



	Students Starting at this Level in 1998	All Students Studying in 1998 (starting or continuing)
Certificates	30%	25%
Diplomas	32%	37%
Degrees	46%	60%
Postgrad Cert/Dips	49%	54%
Honours/Masters	59%	62%
Doctorates - 1998 students	26%	46%
Doctorates - 1997 students	39%	54%
All Levels	40%	49%

All Levels include students who change qualification level whereas rates for individual levels do not.

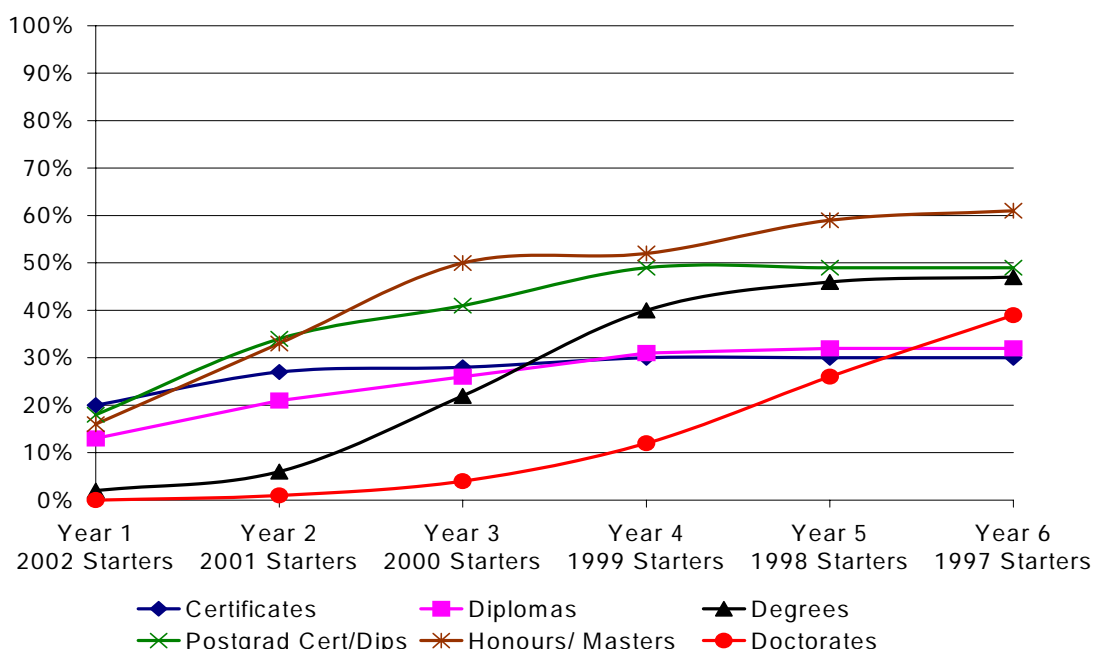
Completion rates for all students, that is, both those starting and those continuing study at a particular qualification level, are naturally higher than for those who are just starting study at that level. The first measure provides a better estimate of a final completion rate, while larger differences between the two rates reflect the longer period required to complete a qualification at that level.

In general, the higher the qualification level studied, the higher the rate of completion is. A person starting a degree is 1.5 times more likely to have completed after five years than a person starting a certificate, while a person starting honours or masters study is nearly twice as likely to have completed after five years than someone starting a certificate.

The graph shows higher completion rates for those starting certificates in 1998, than for all students studying certificates in 1998. Conversely, completion rates for those starting at all other qualification levels in 1998 were lower than the rate for all students. This may indicate a transfer effect where some students starting certificates end up progressing to higher level qualifications without necessarily completing the certificate.

In addition to five-year completion, it is interesting to look at completion by number of years studied. The following graph shows the completion rate in 2002, for each of the groups of domestic students who had started in the six years 1997 to 2002. That is, completion in year 1 for students starting in 2002, completion in year 2 for students starting in 2001, through to completion in year 6 for students starting in 1997. While this combines rates for different cohorts of students, it does allow the latest available completion rates to be used.

Figure 23: Completion rates for domestic students starting a qualification at a public provider between 1997 and 2002 by qualification level and year of study



Note: Year 1 relates to students starting a qualification in 2002, Year 2 to 2001, Year 3 to 2000, Year 4 to 1999, Year 5 to 1998 and Year 6 to 1997.

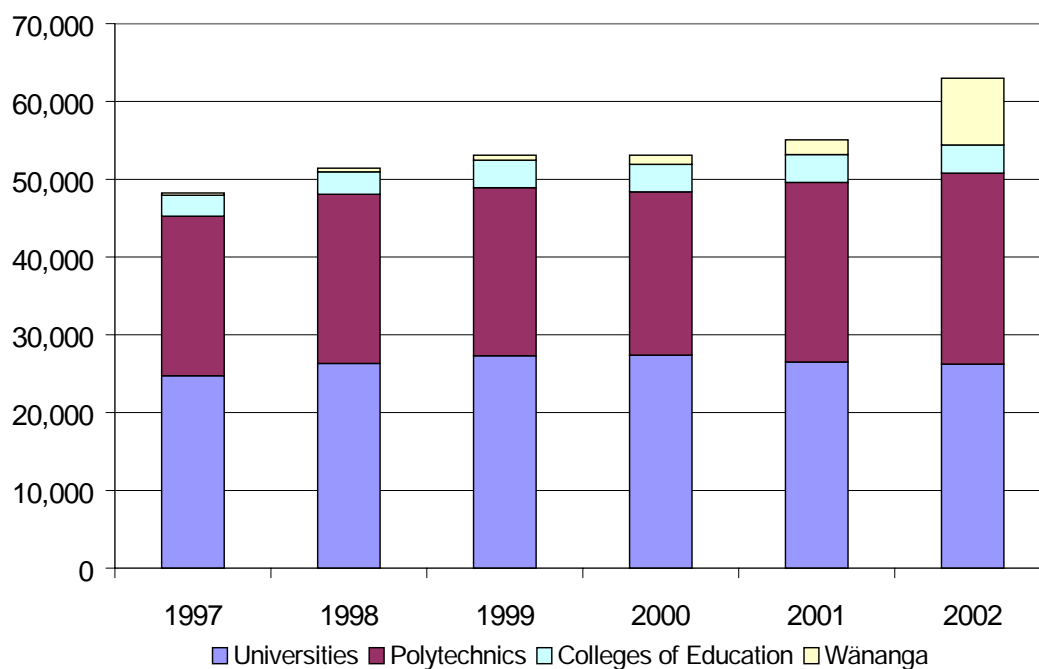
As might be expected, completion rates for certificates have ‘flattened’ after two years. That is, very few extra students complete a certificate more than two years after starting it. For diplomas, including postgraduate diploma level qualifications, this flattening happens after four years. The steeper gradient in the earlier years in these sub-degree qualifications reflects the greater length of study required for degrees and doctorates compared with other qualification types.

Degree completion rates are still rising four years after starting, but by year five they have begun to flatten, while for doctorate level study, rates are still rising after six years of study.

Sub-Sector

The majority of qualifications (62 percent) were completed at universities and polytechnics in 2002, but provision of tertiary education is more diverse than in the past. The number of completions by students attending wānanga grew from just 270 in 1997 to 8,590 in 2002. Another 19,210 students completed qualifications at private providers in 2002.

Figure 24: Number of completions for domestic students by sub-sector, 1997-2002



	Universities	Polytechnics	Wānanga	Colleges of Education	Private & Other Providers	Total
1997	24,740	20,520	270	2,700		48,230
1998	26,310	21,770	470	2,880		51,420
1999	27,310	21,620	630	3,540		53,090
2000	27,380	21,010	1,180	3,530	12,360	65,460
2001	26,520	23,080	1,880	3,580	18,070	73,120
2002	26,240	24,550	8,590	3,610	19,210	82,210

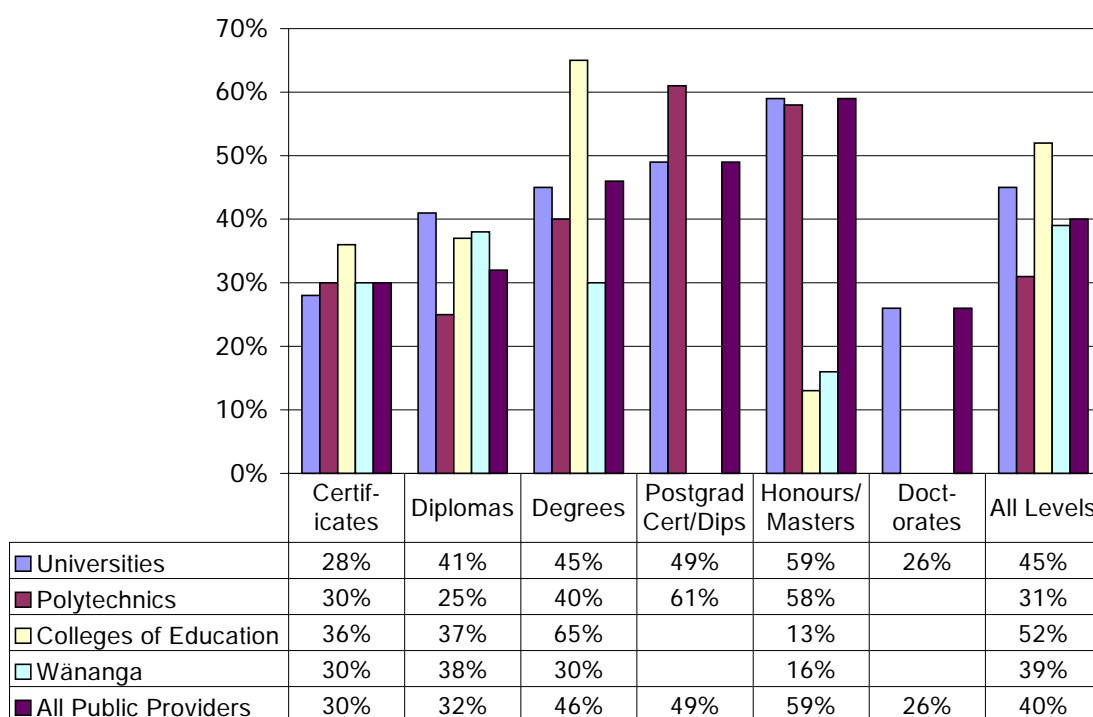
All numbers are rounded to the nearest 10. Therefore totals may not add due to this rounding. Students are counted in each sub-sector they were enrolled in, hence the total will overcount the actual number of students starting a qualification.

Caution is needed in interpreting comparisons at sub-sector level, because of the nature of qualifications offered between sub-sectors. For example, a diploma offered at a university may, in many cases be quite different from a diploma offered at a polytechnic, even though they are at the same level. The same applies to postgraduate certificates or diplomas.

Also the different academic and demographic characteristics of the students undertaking study in different sub-sectors will affect the rates at which study is successfully completed. Adjustment for such differences has not been attempted here.

In addition, the data used in this report does not capture a number of qualification completions where the student has been enrolled at a tertiary institution, but where the qualification has been awarded by a non-institution organisation (for example, NZQA or an ITO). This will tend to under-represent completion rates at in particular, polytechnics and private providers.

Figure 25: Five-year completion rates for domestic students starting a qualification at a public provider in 1998 by sub-sector and qualification level



All Levels include students who change qualification level whereas rates for individual levels do not.

Completion rates at degree level are highest at colleges of education, between 1.4 and 1.6 times the degree completion rate at universities and polytechnics. This is perhaps to be expected given the specialised nature of provision at these institutions. Universities have the highest completion rates for diplomas. Wānanga and colleges of education rates are similar. Polytechnics have the lowest completion rates at diploma level, where completion rates are 68 percent the rate at colleges of education and wānanga, and 61 percent the rate at universities.

While the five-year completion rate for doctorate level study was 26 percent, this rose to 39 percent after six years. When students continuing doctorates as well as those starting doctorates in any year are included, an estimated 54 percent are expected to have successfully completed after six years.

Ethnicity

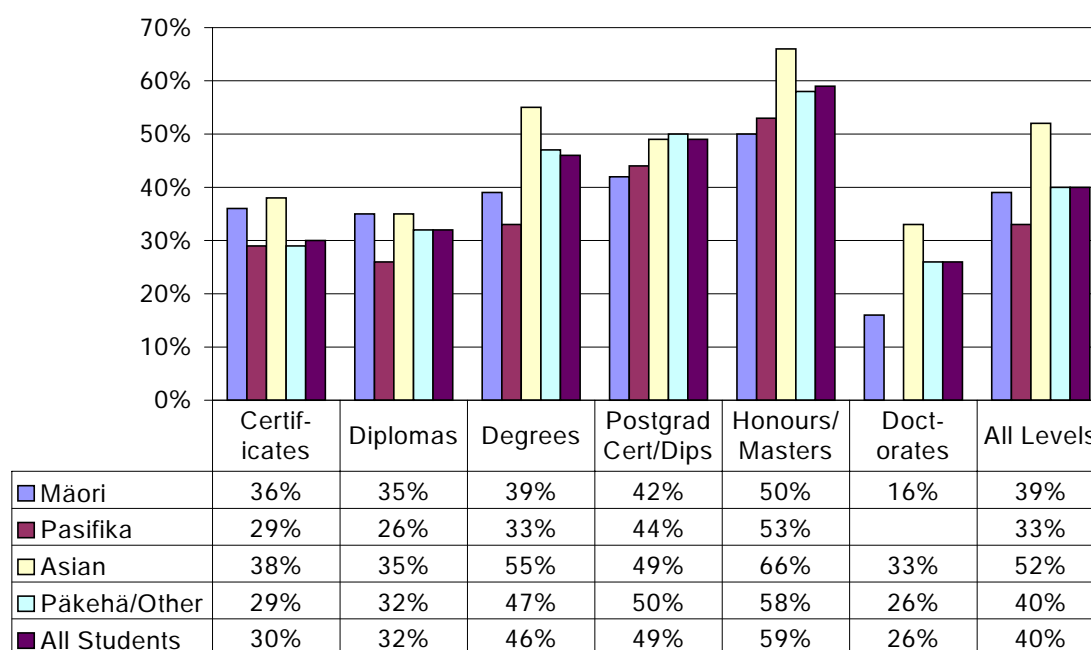
Asian students have the highest completion rates over all qualification levels (52 percent). At levels below degree level, however, Māori completion rates are similar to Asian. At certificate level around 36 percent and 38 percent respectively of domestic Māori and Asian starting students complete. Similarly, around 35 percent of domestic Māori and Asian students starting diplomas will have completed after five years.

At higher levels, Asian students still have the highest rates of completion. However Māori completion rates are much lower, relatively speaking, at higher qualification levels. In particular, at the postgraduate level, Māori have the lowest completion rates of any ethnic group.

Pasifika rates of completion are the lowest of any group at degree level and below. Although similar at certificate level to Pākehā/Other students, their completion rates are nine percent lower than those of Asian and Māori students for both certificate and diploma level study.

For every 100 students in each ethnic group who started a degree in 1998, 33 Pasifika students completed, compared with 39 for Māori, 55 for Asian students and 47 for Pākehā and other groups. That is, 1998 Pasifika students starting degrees completed them at 85 percent the rate of Māori, 60 percent the rate of Asian students, and 70 percent the rate of Pākehā and other groups.

Figure 26: Five-year completion rates for domestic students starting a qualification at a public provider in 1998 by ethnic group and qualification level



All Levels include students who change qualification level whereas rates for individual levels do not.

Based on 1998 starting students, Māori are more likely to complete a certificate level qualification at a polytechnic or a wānanga (1.6 and 1.5 times the university completion rate). However, Māori are slightly more likely to complete a diploma at a university (polytechnic, college of education and wānanga certificate completion rates are between 0.7 to 0.9 of the university rate).

However at degree level, Māori are more likely to complete a degree at a college of education (1.5 times the rate of universities and polytechnics, and 1.8 times the rate at wānanga). At postgraduate levels, Māori predominately complete at university, as the vast majority of Māori postgraduate study is done here.

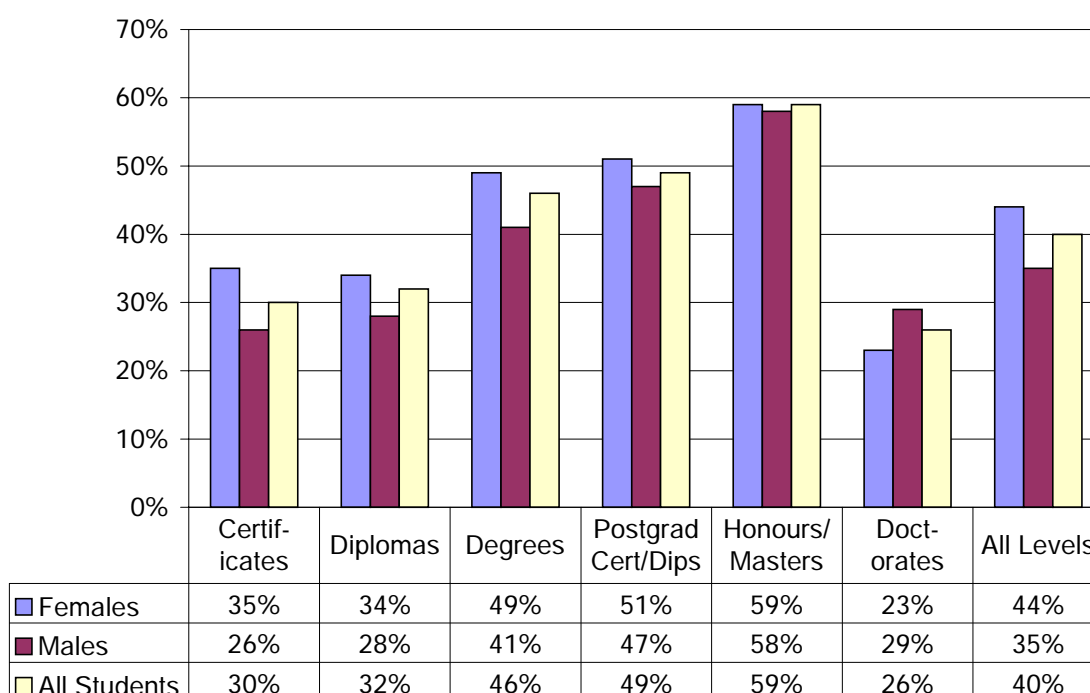
As for Māori, Pasifika students starting 1998 were 1.5 times more likely to complete a certificate at a polytechnic, than at a university, but unlike Māori, Pasifika students were only half as likely to complete a certificate at a wānanga than at a university.

Pasifika students were just as likely as Māori to complete a diploma or a degree at a university or a polytechnic, but almost twice as likely (1.8 and 1.9 times) to complete a diploma or a degree at a college of education.

Gender

Completion rates for women follow a similar pattern to women's retention rates. Women are more likely to successfully complete a tertiary qualification than men. For degree level qualifications and below, the rate at which women complete is between 1.2 and 1.3 times the rate for men. However, the gap narrows at postgraduate level.

Figure 27: Five-year completion rates for domestic students starting a qualification at a public provider in 1998 by gender and qualification level



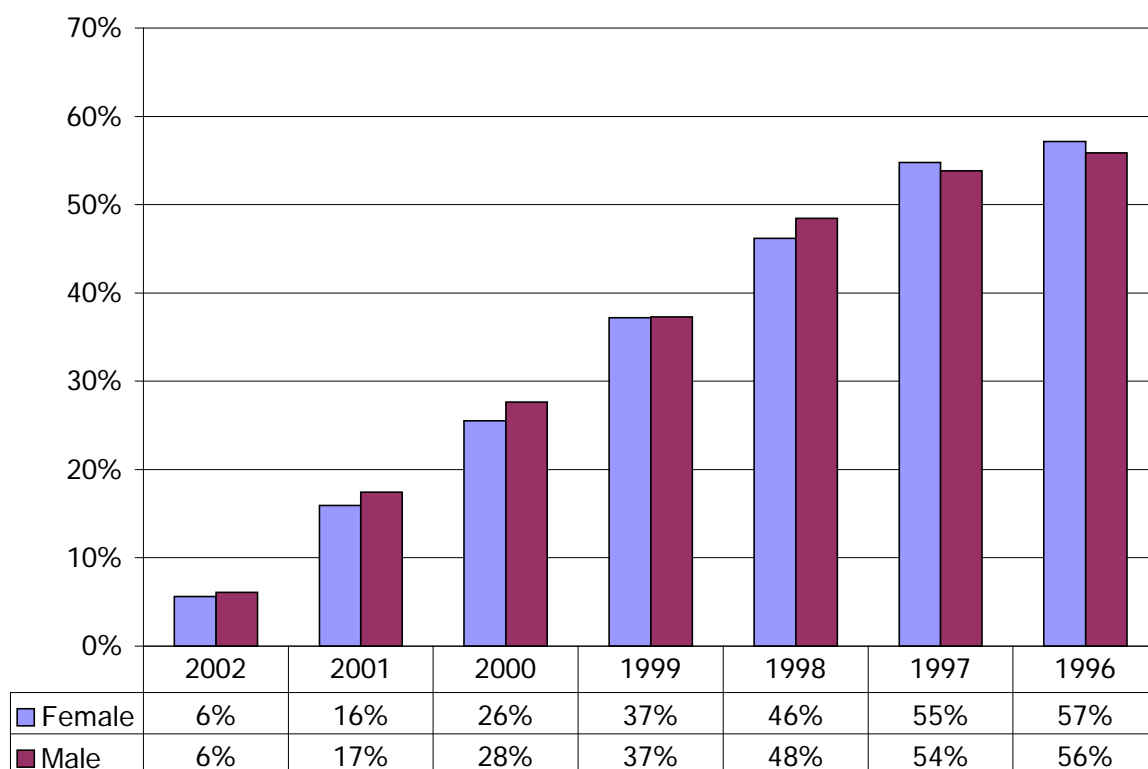
All Levels include students who change qualification level whereas rates for individual levels do not.

Doctorate completion rates are still rising after five years of study (eg from 26 percent completing after five years to 39 percent completing after six years). Because of the longer-term nature of doctorate study, it is interesting to estimate longer-term doctorate completion rates for men and women, than the 1998 cohort above provides.

The following graph plots doctorate completion rates in 2002 (the latest data available) for all domestic students for the years they were studying at that level, and regardless of when they started. That is, completion in year 1 for all students studying doctorates in 2002, completion in year 2 for 2001 doctorate students, through to completion in year 6 for all students studying doctorates in 1997. While this combines rates for different cohorts of students, it does allow the latest available estimates of longer-term completion rates to be compared for men and women.

The figures show much closer rates of doctoral completion, than portrayed by the 1998 starting cohort. In fact, for all students studying at doctoral level in 1997, 55 percent of women had completed by end of 2002, compared to 54 percent of men. This may indicate that while completion rates are similar, women take longer to complete, either due to more time out or more part-time study. In common with other OECD countries, women participate at doctorate level at a lower rate than men, although this gap is narrowing, and this is the only level where this is still true.

Figure 28: Percentage of all domestic students studying doctorates in a year who have successfully completed by the end of 2002 by gender



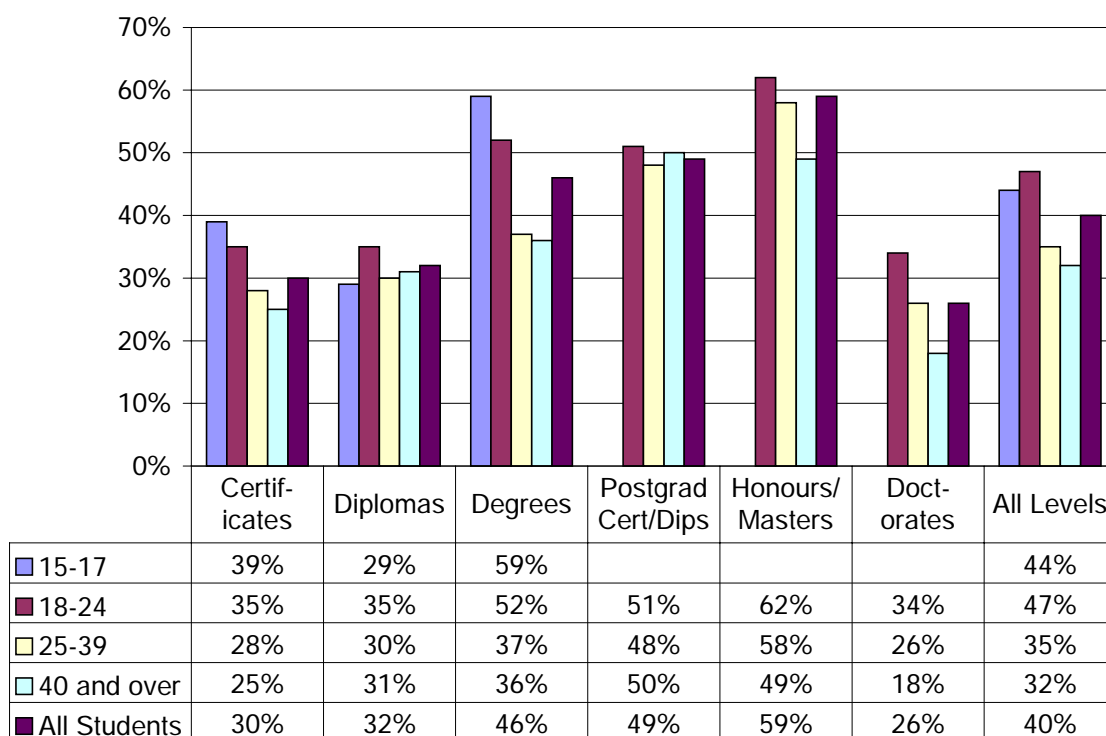
Includes both starting and continuing doctorate students.

Age

In general, younger students have higher rates of completion than older students. Students under 25 have higher completion rates across all levels, in particular at degree level, where students under 25 are nearly 1.5 times more likely to complete than students over 25.

The difference is less for diploma qualifications, both undergraduate and postgraduate, where students under 25 are only slightly more likely (1.1 times) to complete than students of older ages.

Figure 29: Five-year completion rates for domestic students starting a qualification at a public provider in 1998 by age group and qualification level



Note: Age relates to age at 1 July 1998

All Levels include students who change qualification level whereas rates for individual levels do not.

5 Progression

Concept & Definition

The concept of progression used in this report refers to a student's study decision after successful completion of a qualification. In this sense, it is educational progression from qualification to qualification.

Progression in this report is classified into three types: students who progress to a higher qualification level, students who continue their study at the same level as the qualification they have completed, and students who continue study at a lower level of qualification. Those students who leave study after completion make up the remainder of those who have completed.

The discussion follows various groups of completing students, and looks at what percentage of them are enrolled in tertiary study in the following year.

Progression is useful as a measure of how many people advance their knowledge and skills acquisition. For example, what proportion of older students attracted to tertiary study for the first time and completing a certificate, then go on to enrol in higher level study? Do students with poor foundation skills or few school qualifications progress to higher levels after completing 'second chance' educational qualifications?

Similarly, progression can measure the rate at which a country's population acquires advanced knowledge, ie the proportion of graduates who progress to postgraduate study.

Suppose we have a group or cohort of students (C say) who have successfully completed a qualification in a given year. Progression is defined in this report as the re-enrolment status of this group i years after the completion year. If E_h are those enrolled in a qualification at a level higher than that they have just completed, then progression i years after completion to a higher level qualification is:

$$P_{ih} = E_h/C * 100$$

Similarly if E_s are those enrolled in a subsequent qualification at the same level, and E_l are those enrolled in a subsequent qualification at the lower level then progression i years after completion to a same level or lower level qualification respectively are:

$$P_{is} = E_s/C * 100$$
$$P_{il} = E_l/C * 100$$

As for completion and retention, all rates include adjustments for transfers between institutions. When rates are calculated by sub-sector, they will include transfers between institutions in that sub-sector only. When rates are calculated by whether in public or private providers, they will include transfers only between public or private institutions respectively.

As for completion and retention, progression varies with time. Many students will take a break before returning to study, therefore it is useful to look at progression in future years. In this report however, only progression in the year following completion ($i=1$) is

analysed, that is direct progression. This is important to note, as a number of students will take a break after completing a qualification, and return to study in future years. In this way, the rates represented in this report will under-represent true or final progression rates.

In most analyses, the cohort of students completing in 2001 is used. Their progression is based on their re-enrolment status in 2002 and includes re-enrolment at any provider, whether it is the same provider, or a different one, or whether it is public or private.

This is different from retention and completion when analysing rates by *sub-sector*. In sub-sector progression rates, the student does *not* have to re-enrol in the same sub-sector as the one they completed their qualification in. Retention and completion by sub-sector require the student to be retained or complete *in the same sub-sector* they started in.

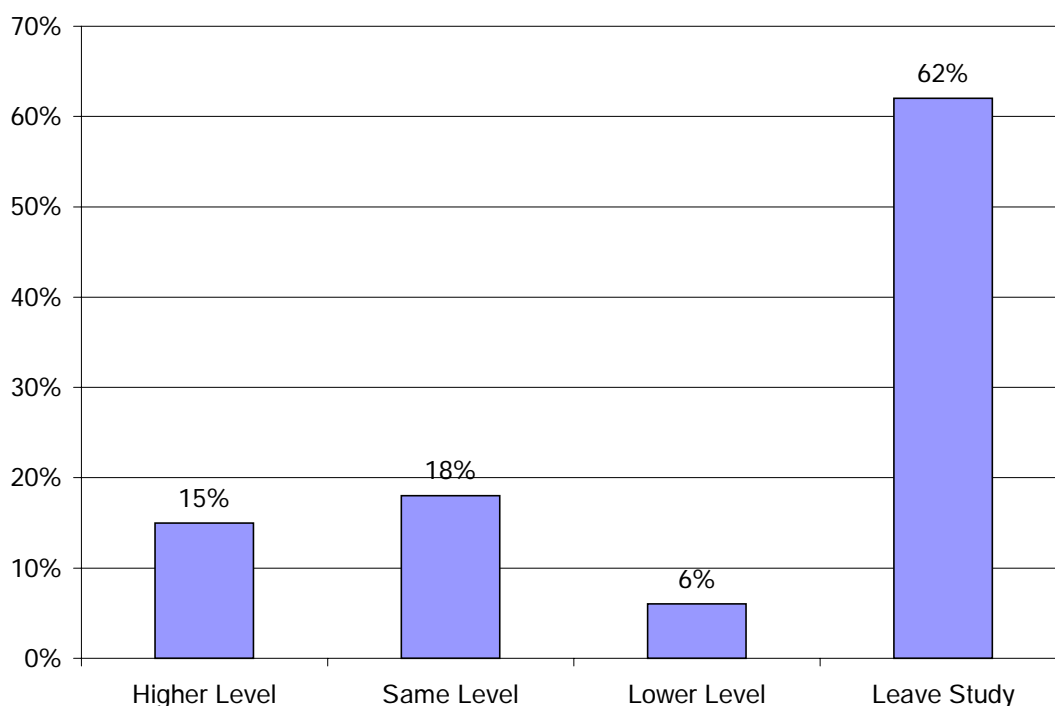
In this analysis, students who are studying more than one qualification concurrently, and who complete one of these qualifications, and continue studying the other(s) in the following year are counted in the progression. Hence, even if a student has been enrolled in a higher level qualification before they completed their lower level qualification, their progression will be counted at the time they complete their lower level qualification.

In most tables and graphs in this report, rates have been disaggregated by qualification level. However, as for completion and retention, no attempt has been made to adjust progression rates by qualification level or other variables. In this sense, care is needed when making fair comparisons as other confounding factors may be involved.

Total Progression

About 38 percent of students continue studying in the year after completing a qualification. Of these, 15 percent go on to study at a higher level, while 18 percent continue study at a similar level to the qualification they've just completed. Around six percent continue their study in a lower level qualification.

Figure 30: Total progression in 2002 for domestic students who completed in 2001



Totals may not add due to rounding.

Not surprisingly, progression to higher levels at private providers is lower than for public providers, given that the vast majority of provision is at lower (sub-degree) level.

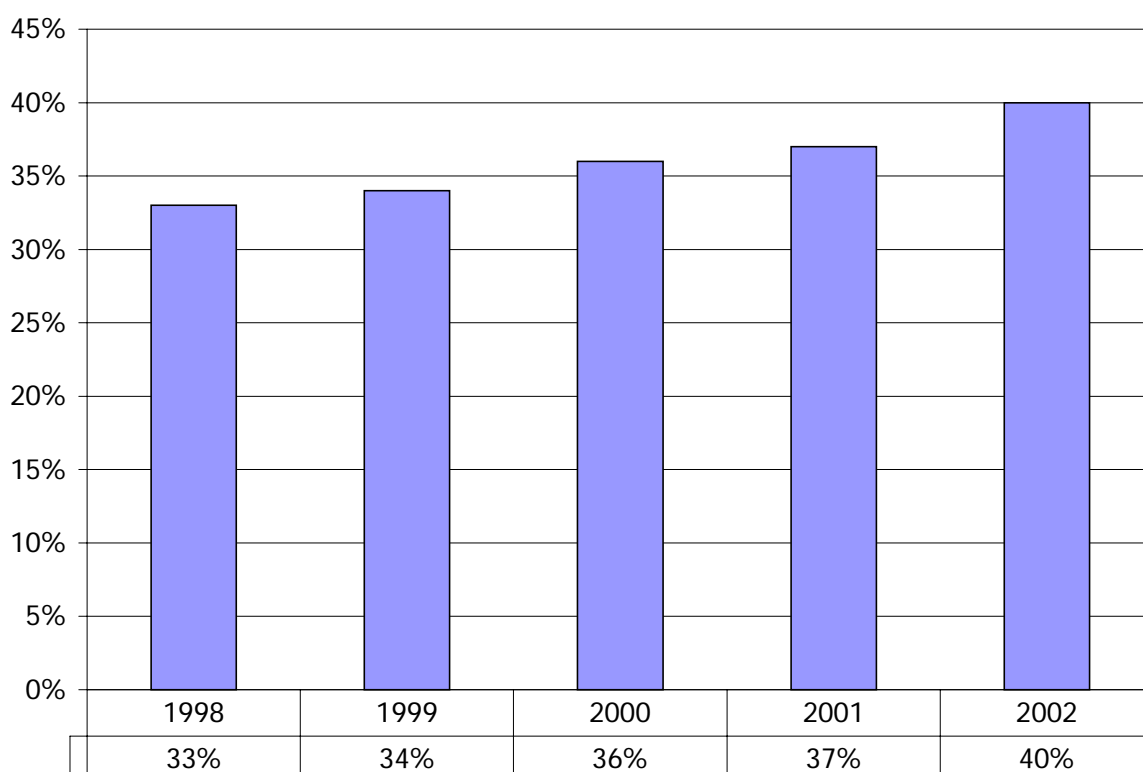
Figure 31: Total progression in 2002 for domestic students who completed in 2001 at public and private providers

	Higher Level	Same Level	Lower Level	Leave Study
Public Providers	17%	17%	7%	60%
Private Providers	8%	20%	3%	69%
All Providers	15%	18%	6%	62%

Note: Totals may not add due to rounding

Limited data on historical progression data is available for private providers, but in public providers there has been a small trend upwards in the percentage of students continuing their study after completing a qualification.

Figure 32: Percentage of students continuing study in the year after completing a qualification, for domestic students at public providers who completed in 1997 to 2001



Progression	1998	1999	2000	2001	2002
Higher Level	15%	16%	16%	16%	17%
Same Level	14%	14%	15%	16%	17%
Lower Level	5%	5%	6%	6%	7%
Leave Study	67%	66%	64%	63%	60%

Note: Totals may not add due to rounding

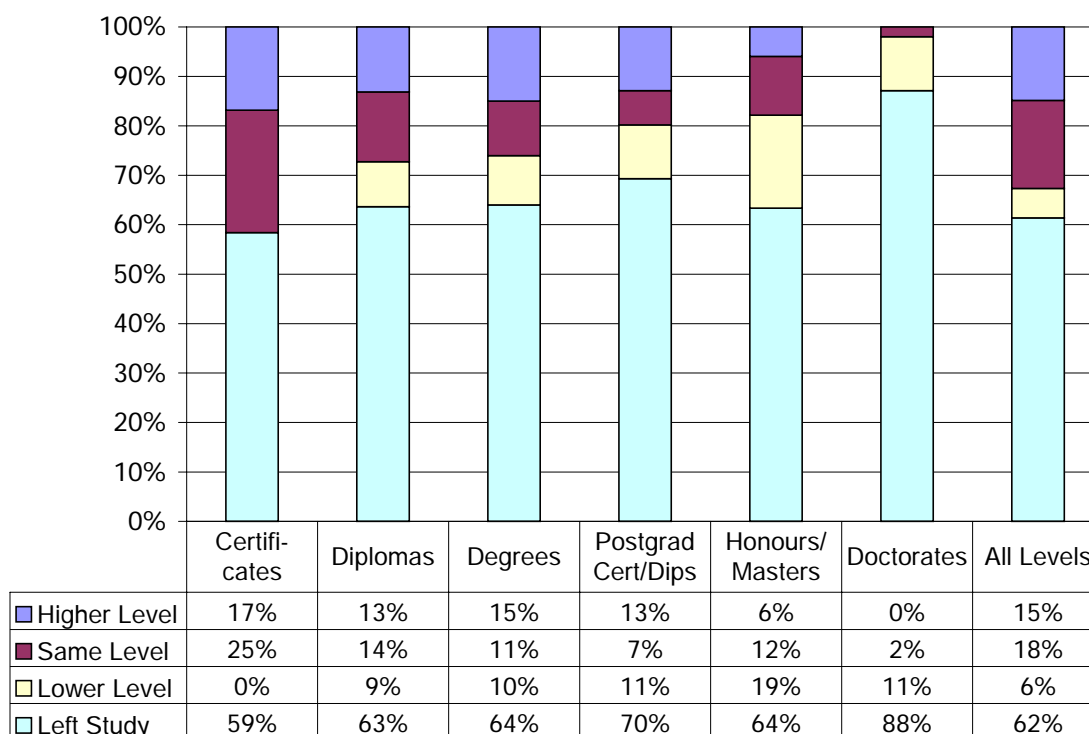
Qualification Level

As might be expected, progression on to a higher level qualification is greatest for students completing certificates (at 17 percent). However, those completing degrees progress to higher level qualifications more than those students completing diplomas (15 percent compared with 13 percent).

Around 13 percent of those completing postgraduate certificates or diplomas will continue their study at honours, masters or doctorate level, while six percent of those completing honours or masters will progress to their doctorate.

Conversely, nearly one in five students (19 percent) completing at honours or masters level will progress to lower qualification levels (although this includes those who study postgraduate certificates or diplomas). Between nine and eleven percent of students completing at other qualification levels will continue their study in a lower level qualification.

Figure 33: Progression in 2002 for domestic students by qualification level completed in 2001



Sub-Sector

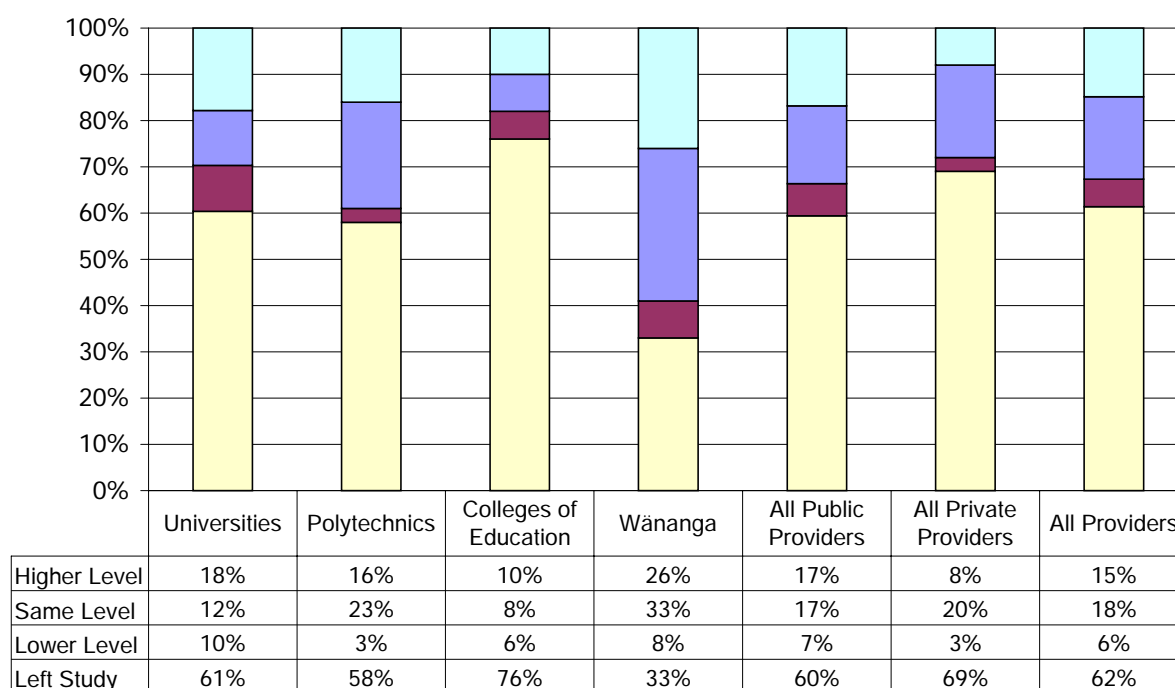
Over all qualification levels, wānanga have (by far) the highest rate of progression. Two in every three (67 percent) of students completing in 2001, were studying in 2002, compared with rates of 42 percent for polytechnics, 39 percent for universities, 31 percent for private providers and 22 percent for colleges of education.

Caution is needed in interpreting comparisons at sub-sector level, not just because of the nature of qualifications offered but also on how that sub-sector is positioned. For instance, most of those completing at a college of education will have finished a pre-service professional teaching qualification, a qualification specifically designed to prepare those completing for a specific career. It is entirely predictable therefore, that colleges of education have the lowest progression rate. By contrast, wānanga offer a large number of qualifications designed to provide a pathway into tertiary education for people wanting a second chance in the education system. It is natural and to be expected that their progression rate is high.

Also the different academic, demographic characteristics and educational backgrounds of the students undertaking study in different sub-sectors will affect the rates at which study is successfully completed. Adjustment for such differences has not been attempted here.

Progression by qualification level for each sub-sector is discussed further below.

Figure 34: Progression in 2002 for domestic students who completed in 2001, by sub-sector

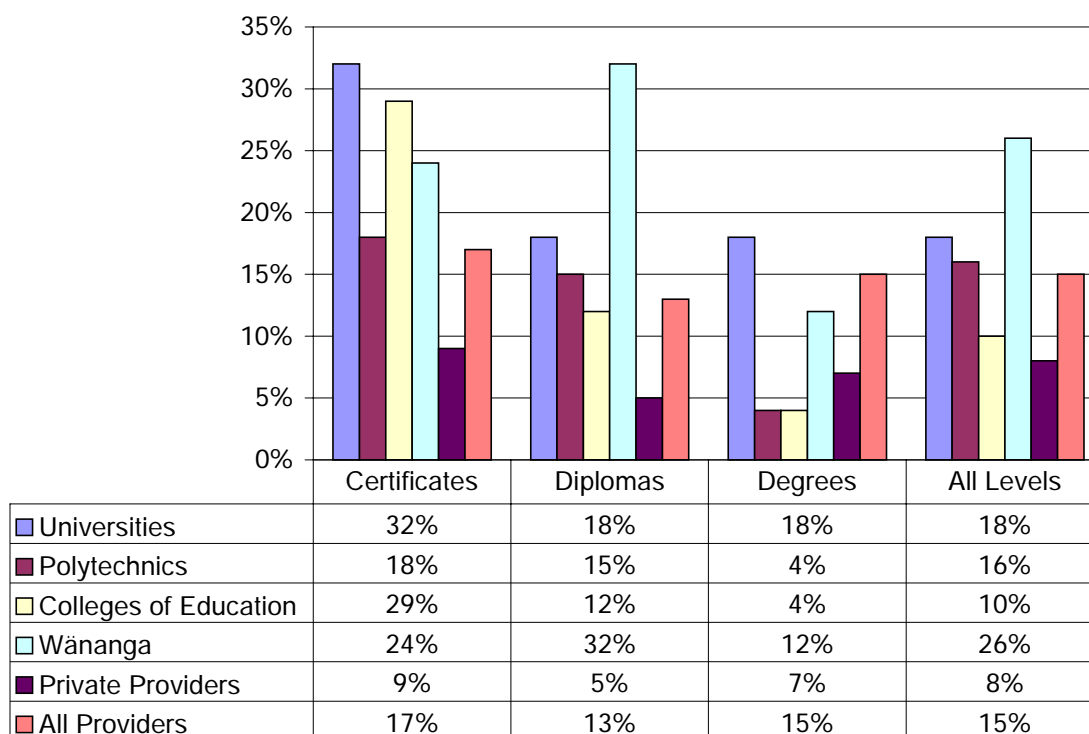


Wānanga have grown significantly since 2001, and, as shown in the previous chapters, so have their retention and completion rates. Over 90 percent of wānanga study is at certificate level, and much of the increase is due to older first-time students, often female, and often studying part-time or extramurally. It is interesting to look at progression of those wānanga students who completed a certificate in 2001.

The following graph shows progression in 2002 by sub-sector for those completing degree diplomas and certificates. Progression (to higher, same or lower levels) is highest at sub-degree level for wānanga. 56 percent of students completing a certificate or diploma at a wānanga in 2001 continued study in 2002. Although wānanga have the highest rates of progression for students completing diplomas, universities have the highest rate of progression for students completing certificates.²⁴ Private providers have the lowest rates of progression for students completing certificates or diplomas, while most students completing degrees at polytechnics and colleges of education will leave tertiary study the following year.

²⁴ Note there are relatively few university students at certificate level compared with wānanga

Figure 35: Progression to higher qualification level study in 2002 for domestic students who completed in 2001 by level of qualification completed and sub-sector



Along with wānanga and colleges of education, the higher rate of progression of university students completing certificates indicates that universities are also providing a 'gateway' into further study, even if there are relatively few studying certificates at universities.²⁵ At postgraduate level, most study is done at a university. For those completing a postgraduate qualification at a university in 2001, progression in 2002 was as follows:

Figure 36: Percentage of domestic students continuing study in 2002 who completed a postgraduate qualification at a university in 2001

Level	Higher Level	Same Level	Lower Level	Left Study
Postgraduate Certificates/Diplomas	14%	8%	11%	67%
Honours/Masters	6%	12%	19%	64%
Doctorates	0%	2%	11%	88%

Looking in more depth at progression by qualification level, the following figure shows some further support that recent growth in first-time students in wānanga is leading to further study in tertiary education.

²⁵ Around 10,500 (or 9 percent) of the 118,000 students starting certificates in 2001 were enrolled at a university.

Figure 37: Progression from qualification level completed in 2001 to level enrolled in 2002 by sub-sector for students completing certificates and diplomas

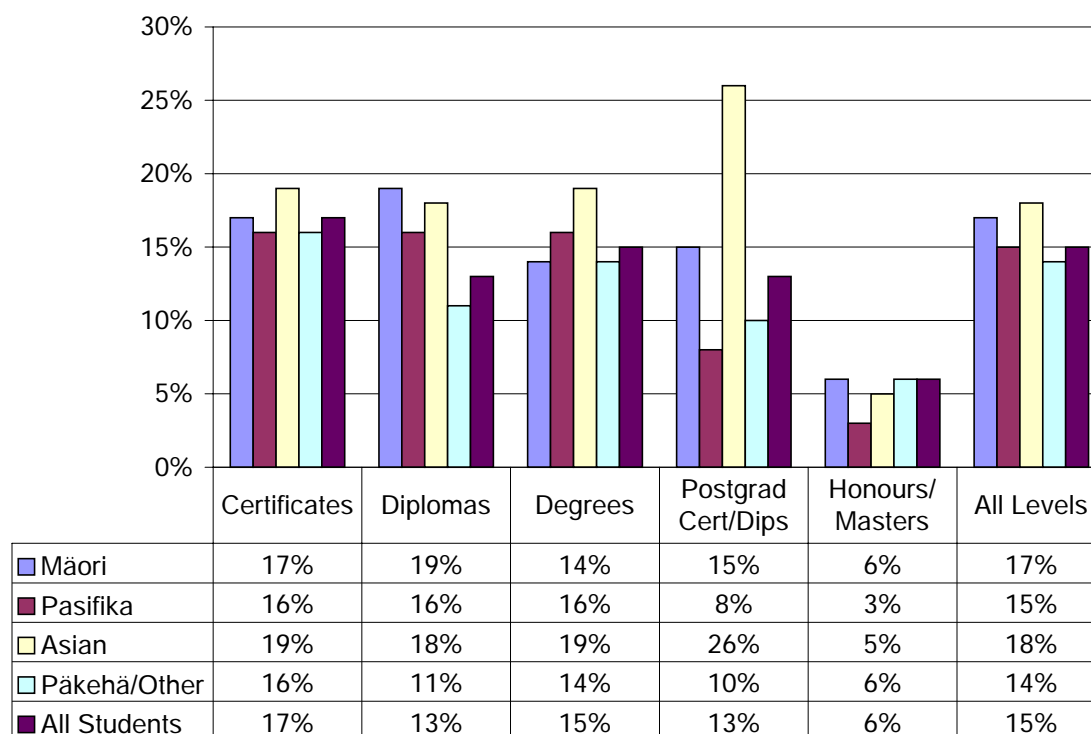
Level of Qualification Completed in 2001	Level of Qualification Enrolled in 2002	Universities	Polytechnics	Colleges of Education	Wānanga	Private Providers
Certificate	Certificate	16%	28%	15%	38%	22%
	Diploma	11%	10%	8%	13%	5%
	Degree	19%	7%	17%	9%	4%
Diploma	Certificate	6%	11%	5%	22%	10%
	Diploma	8%	15%	11%	22%	17%
	Degree	11%	14%	10%	30%	5%

Of all students completing certificates in 2001, wānanga have the highest rate of progression to diploma level study, at 13 percent. However, universities and colleges of education have the highest progression from certificates to degrees at 19 percent and 17 percent respectively. Wānanga have the highest rate of progression from diplomas to degrees. Around 30 percent of students completing a diploma at a wānanga went onto degree level study in 2002. The percentage of wānanga students completing certificates or diplomas in 2001 and studying at the same or a lower level in 2002 is also the highest for any sub-sector. This table is presented in full for all levels as table 39 later in this report.

Ethnicity

Over all qualification levels, Māori have the highest rates of progression; 48 percent of those completing a qualification will continue studying in the following year. However, while Māori have similar rates of progression as other groups to study at higher levels (17 percent), Māori have the highest rates of progression to study at the same level or to lower levels.

Figure 38: Progression to a higher level study in 2002 for domestic students who completed in 2001, by qualification level completed and ethnic group



Pasifika have comparable rates of progression for those completing degrees or lower, but progression for those completing postgraduate qualifications is the lowest. Eight percent of Pasifika students completing a postgraduate certificate or diploma will progress to honours/masters or doctorates, compared with 10 percent for Pākehā/Other, 15 percent for Māori and 26 percent for Asian.

Asian students have the highest rate of progression to higher levels of study for those completing degrees, and in particular, postgraduate certificates or diplomas. Over a quarter of these will continue studying at honours/masters to doctorate levels in the following year.

For Pākehā and other groups completing qualifications at degree level or lower, progression to higher levels is amongst the lowest. Correspondingly, Pākehā/Other students are more likely to have left study after completing. This holds across all undergraduate and graduate levels. Pasifika students tend to leave study more often after completing postgraduate certificates or diplomas (Asian students the least), while Asian students tend to leave more after completing an honours or masters level qualification.

Māori are more likely to progress to higher levels of study from a wānanga, and least likely from a private provider (27 percent compared with eight percent). By contrast, Pasifika and Asian students are more likely to progress to higher level study from a university (and least likely from a private provider. Just over 100 Pākehā/Other students completed a certificate or diploma at a wānanga in 2001. Nineteen percent of these went to higher level study, compared with 16 percent of the 22,500 completing at a university, and 15 percent of the 17,000 completing at a polytechnic.

The following two graphs compare progression upwards from certificate level, and from degree level.

Figure 39: Progression to higher level study in 2002 for domestic students who completed a certificate in 2001, by sub-sector and ethnic group

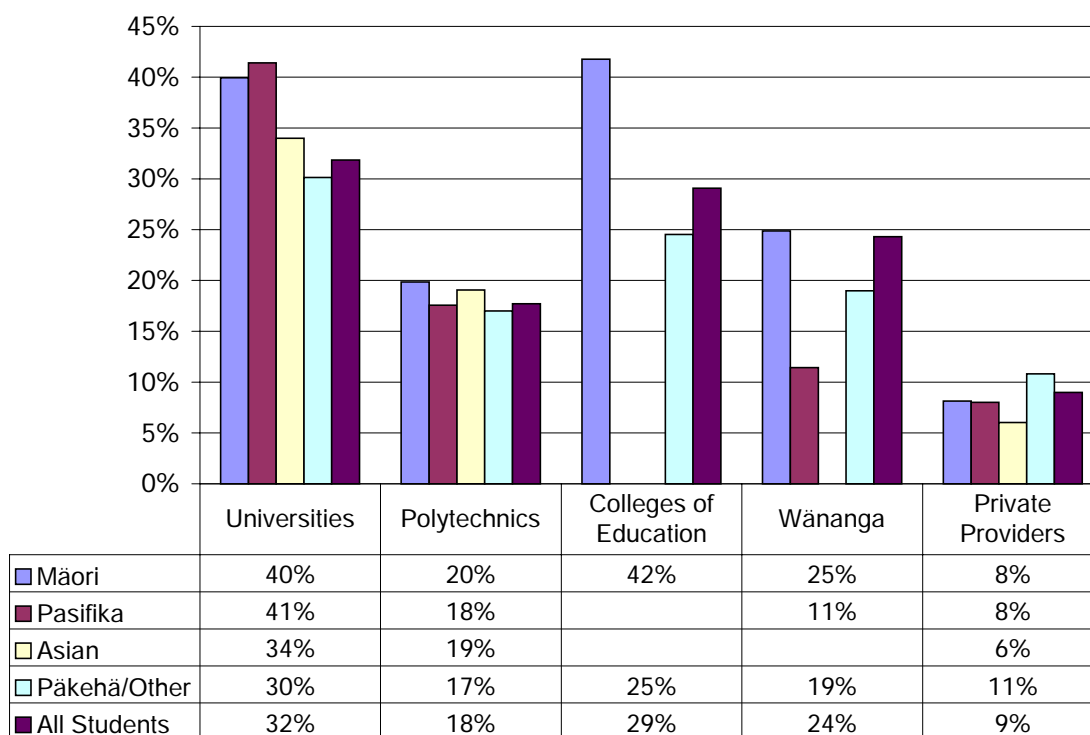
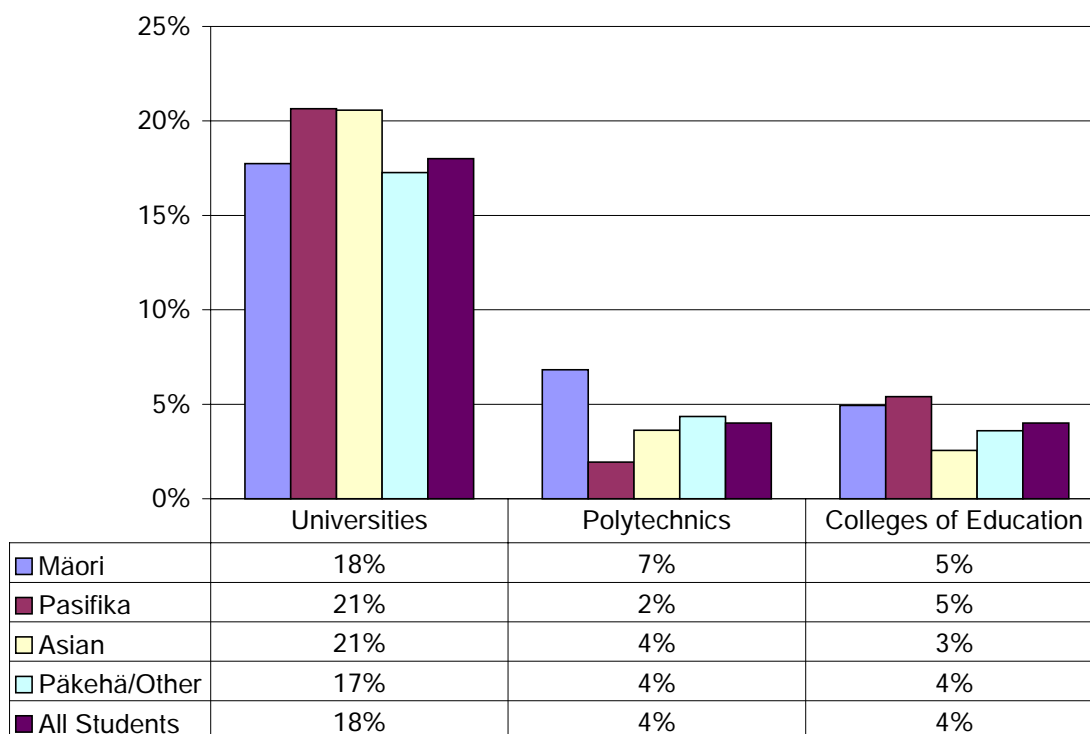


Figure 40: Progression to higher level study in 2002 for domestic students who completed a degree in 2001, by sub-sector and ethnic group



Gender

Men and women follow similar progression patterns. Thirty-eight percent of both male and female completing students will continue study in the following year, with 14 percent and 15 percent respectively progressing to higher level study. Eighteen percent and 17 percent respectively, will progress to the same level, while six percent of males and five percent of females continue their study at lower levels. Progression rates by sub-sector and level are also similar.

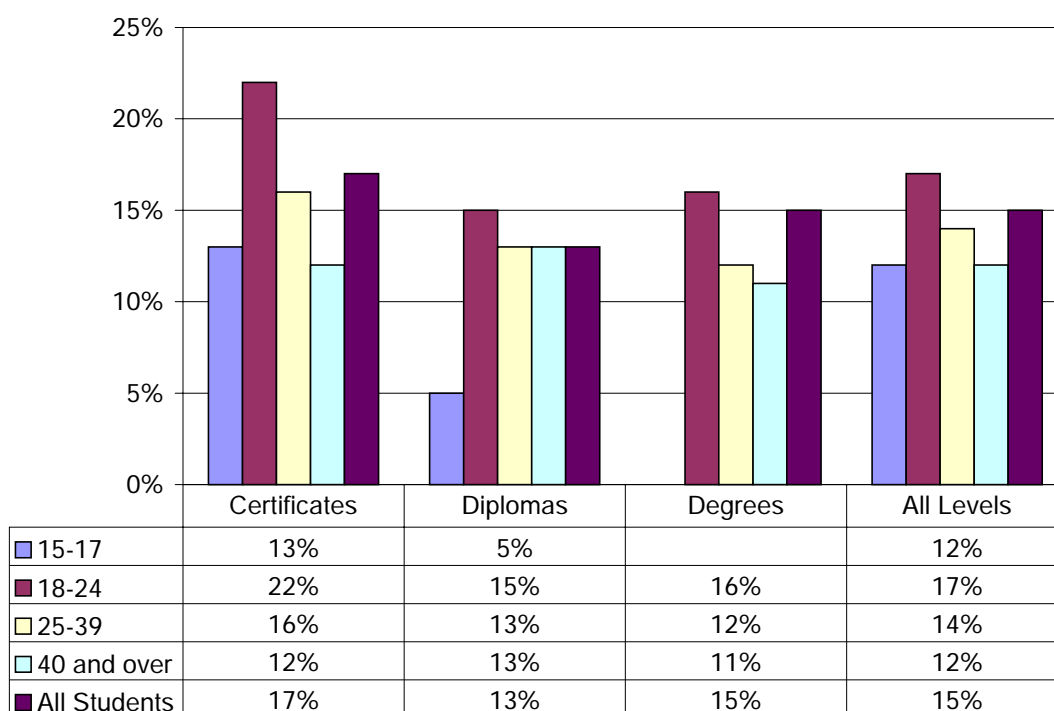
Age

Progression from qualifications at degree level or lower to higher level study is greater for students in the traditional tertiary age group of 18 to 24 years than for older age groups. Just over one in five (22 percent) of 18 to 24 year-olds completing a certificate will continue study at a higher level, while 15 percent of 18 to 24 year-old students completing diplomas and 16 percent completing degrees will go on to further study at a higher level.

For younger students under 18, progression upwards is greatest at universities, where 41 percent of the 160 15 to 17 year-olds completing in 2001, went on to study at a higher level. There is also a high level of progression on to study at the same level for 15 to 17 year-olds studying at wānanga (45 percent of 70 students completing in 2001).

Although students at older ages tend to have lower progression rates than those aged 18 to 24, they have the highest rates of progression on to higher level study at wānanga. Nearly one in four (24 percent) of 25 to 39 year-olds completing at a wānanga went on to higher level study, compared with 14 percent for the sector. Similarly 30 percent of wānanga students aged 40 and over who completed in 2001, went on to higher level study, compared with 12 percent for the sector.

Figure 41: Progression to higher level study in 2002 for domestic students who completed in 2001 by qualification level and age group



6 International Comparisons

Introduction

Comparisons with other countries can provide benchmarks or levels against which government can assess the value of its assessment in education, and providers can assess their relative performance.

Fair international comparisons are, in many cases, impossible and at best, problematic because of the significant education system differences, including access to financial support, academic entry, qualification content and completion standards, and data measurement and definitional differences.

Because of these sometimes significant differences in how the tertiary education sectors of different countries operate, the ways these rates are defined and constructed, comparisons of New Zealand rates with other countries measures has not been included. More work is required to adjust these rates to provide a fairer comparison of retention and completion between New Zealand and other countries.

Factors to consider, for example, include the mix of higher level and lower level education, and the structure of provision of higher level versus more vocationally-oriented education. Also, access criteria play a significant role. New Zealand's relatively open access means that, while students of lower academic ability can enjoy access to higher education, more will drop out or not complete than might be expected from a country with more stringent academic entry requirements. Cost and access to loans and allowances also affect access in a similar way.

Of the countries looked at for this report, each measures retention and completion in a different way. The OECD provides the only source of standardised international comparisons. However, in order to achieve this comparability across countries, the OECD is obliged to use indicators that are not the best measures of completion and retention that are possible (see below).

This report first looks at the latest published OECD definitions and comparisons, and then compares retention and completion rates for New Zealand with selected overseas countries *using the definition of the country being compared with*. The definitions used to measure retention and completion in these countries are described below.

OECD

In the 2003 OECD indicators report, *Education at a Glance*,²⁶ indicators relating to retention and completion include:

Gross graduation rate is the number of graduates (of any age) divided by the population of the typical graduation age. This is presented for first programmes for ISCED levels 5A and 5B.²⁷ The OECD rate for those countries for which information is available is

²⁶ OECD (2003). *Education at a Glance, OECD Indicators 2003*.

²⁷ ISCED level 5 represents study at diploma, degree, and postgraduate level (excluding doctorate). Level 6 represents doctorate level study. Level 5A represents more academically or theoretically based study, while Level 5B represents more vocationally-oriented study.

30 percent for Type A programmes and 11 percent for Type B.²⁸

Net graduation rate is the sum of the number of graduates of each age divided by the population of that age. Net graduation rates are presented for advanced research programmes (ISCED 6). The New Zealand rate for advanced research programmes is 0.9 percent, slightly below OECD rate of 1.1 percent.²⁹

Because of the way this rate is derived, it is mathematically possible for rates to exceed 100%, and as such, rates become increasingly less meaningful as the range of ages for graduates increases. For example, a net graduate rate for New Zealand students completing at ISCED level 5 in 2002 was 84 percent.

True population based graduation rates (ie graduates/population) for New Zealand for 2002 were:

ISCED Level	Completion Rate (Number of People completing a qualification per 100 people aged 15 and over)
4	1.8%
5	1.5%
6	0.02%

Survival rate is the number of graduates (at ISCED level 5A, 5B or 6) divided by the number of first year enrolments at the same level n years earlier, where n is the typical number of years it takes to complete at that level. Again, as typical completion times are not available for New Zealand, this indicator is missing for New Zealand, although it was available in earlier years. The OECD mean is 70 percent for Type A (ISCED level 5A) programmes, 73 percent for Type B (ISCED level 5B) and 58 percent for advanced research programmes (ISCED level 6). Note that the total completion rate figures discussed earlier in this report will include tertiary study at levels below ISCED 5. In 2002, this comprised half of New Zealand tertiary students.

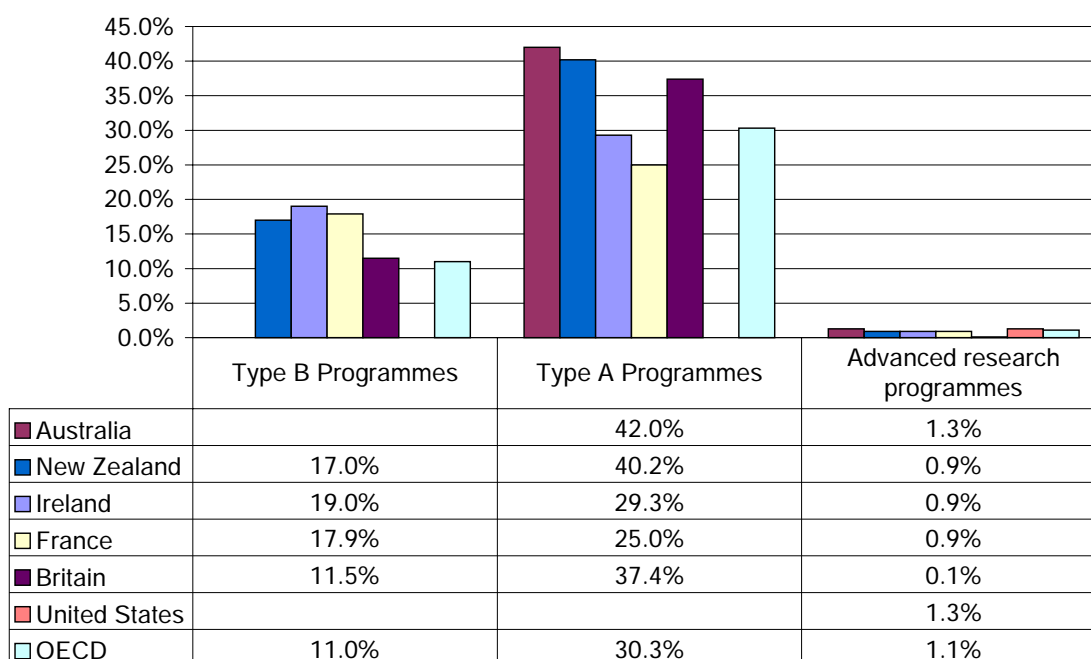
This indicator is conceptually the same as the completion rate used in this report, except that the OECD measure excludes anyone completing in shorter than 'typical' time, and not all graduates will belong to the cohort of first year students starting n years earlier.³⁰

²⁸ OECD (2003). *Education at a Glance, OECD Indicators 2003*. Table A2.1, page 51.

²⁹ Ibid.

³⁰ Ibid. Table A2.2, page 52.

Figure 42: Graduation rates for selected OECD countries 2001



Source: OECD *Education at a Glance 2003*, Table A2.1, Page 51.

Australia

The following higher education rates are used in the Department of Education, Science and Training (DEST) in Australia:

Attrition

This is defined as the number of students enrolled in year 1, who did not complete and who were not enrolled in year 2. The rate of attrition is this number divided by the number of students enrolled in year one *who did not complete*.^{31, 32}

Retention

Similarly, the calculation of retention rates excludes those who complete from both numerator and denominator. That is, the rate of retention is the number of students from year 1 who were still enrolled in year 2 divided by the number of students enrolled from year one *who did not complete*.

For both definitions, attrition and retention rates are defined as attrition and retention *with the same provider*. That is, any student who transfers to another institution is not counted in this rate.

Progress Rates

This is a measure of successful course load progress. It is measured as the proportion of total equivalent full-time study which is passed successfully. It is reported for undergraduate and postgraduate coursework students only.³³

³¹ DEST (2002), *Higher Education Outcome Indicators, Sources and Methods*. Available on website www.dest.gov.au.

³² Personal communication, Phil Aungles, DEST, 17/12/02.

³³ DEST (2001), *Characteristics and Performance Indicators of Australian Higher Education Institutions, 2000*. 01-B, Occasional Paper Series.

Completion

Rates of completion refer to final or lifetime completion rates for a defined cohort. This is estimated using completion rates over a finite period, and adjusting for future probability of returning and completing. The assumptions used are that the probability of returning after a break is the same as the previous year, and that the probability of completing after coming back after a break is the same as previous years. Students who change qualifications at the same institution are excluded. For example, the actual six-year completion rate for 1992 undergraduate university students (ie by 1997) was 60 percent. When this is statistically adjusted for those who may return to complete after 1997, the final completion rate for this 1992 cohort is estimated to be 80 percent.

As for attrition and retention, rates are defined to represent completion *at the same institution*. Students transferring and completing at another institution are not counted.^{34, 35}

Figure 43: Selected Australian completion and attrition rates using Australian (DEST) definitions

DEST Indicator	
Attrition rate – commencing university undergraduate students.	22% ³⁶
Attrition rate – postgraduate coursework	25% ³⁷
Completion rate – commencing university undergraduate students.	64% ³⁸
Completion rate – commencing masters research students	31% ³⁹
Completion rate – commencing doctoral research	53% ⁴⁰

Notes: See sources for full definitions. Definitions are different from New Zealand hence rates can not be compared

Because of the differences in definitions and methodology, comparisons with New Zealand using comparably estimated rates is not currently available.

Britain

British comparisons are taken from figures published by the Higher Education Funding Council for England, in their *2002 Performance Indicators in Higher Education* report.⁴¹

Non-continuation

This is the proportion of students from one year who have neither completed, nor are enrolled in the next year. This indicator is calculated for full-time first-degree entrants only. The figure for non-continuation was 10 percent for full-time first-degree entrants in 1999 to 2000. Those that continue or qualify are split into those that do so at the same institution, and those that do so at a different institution.

³⁴ DEST (1999), *Completions, Undergraduate Academic Outcomes for 1992 Commencing Students*. Available on website www.detya.gov.au.

³⁵ DEST (2001), *Undergraduate Completion Rates – An Update*. Available on website www.detya.gov.au.

³⁶ DEST (2001), *Characteristics and Performance Indicators of Australian Higher Education Institutions, 2000*.

³⁷ Ibid.

³⁸ DEST (2001), *Undergraduate Completion Rates – An Update*. Available on website www.detya.gov.au.

³⁹ DEST (2001), *Postgraduate Completion Rates*. DEST Occasional Paper Series.

⁴⁰ Ibid.

⁴¹ HEFCE (2002), *Performance Indicators in Higher Education in the UK*, <http://www.hefce.ac.uk/Learning/perfind/2002>

Completion

This is the percentage of current full-time students starting their first degree who will complete at the same institution. As in Australia, this is estimated using the progression rates from previous years. That is, the rate of those progressing from year 1 to year 2 from the previous year is applied to this year's starters, and so on, to get the projected eventual completion rate. For example it is projected that 77 percent of full-time first-degree starters in 1999 to 2000 will complete their degree.

At the time of writing, rates are not available for the equivalent cohort of New Zealand students, that is, *full-time* first-degree starters. Robust comparisons are therefore not available.

Figure 44: Selected UK completion and retention rates using UK (HEFCE) definitions

HEFCE Indicator (1998/99 First-time full-time degree students)	
Percentage who continue or qualify in the following year	91%
Percentage not in higher education in the following year	10%
Projected degree completion rate <i>at the same university</i>	77%
Projected non-completion rate	16%

Notes: See sources for full definitions. Definitions are different from New Zealand hence rates can not be compared

Because of the differences in definitions and methodology, comparisons with New Zealand using comparably estimated rates are not currently available.

United States

US comparisons are taken from data published by the US Department of Education's National Center for Education Statistics.

Persistence & Retention⁴²

Persistence and retention are the names given to a classification of student statuses. The classification includes:

Highest degree attained anywhere

Bachelors degree
Associates degree
Certificate

No degree anywhere

Still enrolled
Stopout this year
Transferred
Left postsecondary education

Persistence refers to enrolment by a student at any institution. Retention is similarly defined, but relates to the student's first institution, rather than enrolment at any institution.

⁴² NCES (December 2002), *Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later*, Appendix A. NECS 2003-151. <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003151>

Institutions are classified as public and private 4-year and less-than-4-year institutions. Transfers are further classified into none, upward, lateral, and downward.

Completion/Attainment

Completion records the number of years elapsed from the first month enrolled through to when the degree was attained. See also ⁴³.

Figure 45: Selected US completion and retention rates using US (NCES) definitions

US (NCES) Indicator	
Completion rate - Percentage of students commencing a degree who have attained it after six years	51%
Persistence (Retention) - Percentage of students commencing a degree who have attained it or who are still enrolled six years later	65%
Attrition - Percentage of students commencing a degree who have left without attaining a degree	16%

Notes: US data relates to 6-year rates for students commencing degrees at four-year institutions in 1995/96. See sources for full definitions.

Source: NCES (2002) *Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later*, NCES 2003-151. Available on website: www.nces.ed.gov.

⁴³ NCES (2002) *Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later*, NCES 2003-151. Available on website www.nces.ed.gov. Also NCES (2002), *The Condition of Education 2002*, NCES 2002-25, indicators 23-25, 27,29-30, 32, 35. <http://nces.ed.gov/programs/coe/list/index.asp>.

7 Tables

Important Note: The notes to tables and figures on page 7 should be read in relation to all tables in this section.

Retention Tables

Table 1: Retention rates for all students by year enrolled

Year Enrolled	Students	Percentage of Students Successfully Completed or Still Enrolled					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	425,550	100%					
2001	375,130	100%	69%				
2000	333,900	100%	67%	60%			

Table 2: Retention rates for all domestic students by year enrolled

Year Enrolled	Students	Percentage of Students Successfully Completed or Still Enrolled					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	386,550	100%					
2001	349,230	100%	69%				
2000	317,430	100%	67%	60%			

Table 3: Retention rates for all international students by year enrolled

Year Enrolled	Students	Percentage of Students Successfully Completed or Still Enrolled					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	39,000	100%					
2001	25,890	100%	71%				
2000	16,470	100%	69%	60%			

Table 4: Retention rates for all first-time students by year started

Year Started	Students	Percentage of Students Successfully Completed or Still Enrolled					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	172,850	100%					
2001	161,110	100%	64%				
2000	143,170	100%	60%	49%			

Table 5: Retention rates for all first-time domestic students by year started

Year Started	Students	Percentage of Students Successfully Completed or Still Enrolled					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	148,090	100%					
2001	143,890	100%	64%				
2000	132,400	100%	60%	49%			

Table 6: Retention rates for all first-time international students by year started

Year Started	Students	Percentage of Students Successfully Completed or Still Enrolled					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	24,750	100%					
2001	17,220	100%	68%				
2000	10,780	100%	63%	53%			

Table 7: Retention rates for all domestic students starting a qualification by qualification level and year started at that level

Qualification Level & Year Started	Students	Percentage of Students Successfully Completed or Still Enrolled by end of 2002					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
Certificate							
2002	116,070	100%					
2001	104,510	100%	57%				
2000	90,760	100%	50%	36%			
Diploma							
2002	33,150	100%					
2001	34,910	100%	54%				
2000	32,590	100%	54%	41%			
Degree							
2002	35,990	100%					
2001	37,120	100%	71%				
2000	39,200	100%	68%	60%			
Postgraduate Certificate/Diploma							
2002	6,840	100%					
2001	6,640	100%	63%				
2000	7,230	100%	62%	56%			
Honours/Masters							
2002	6,390	100%					
2001	5,860	100%	70%				
2000	5,910	100%	70%	62%			
Doctorate							
2002	860	100%					
2001	770	100%	86%				
2000	840	100%	83%	78%			
All Levels							
2002	199,290	100%					
2001	189,820	100%	60%				
2000	176,530	100%	56%	44%			

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 8: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level for each sub-sector, ethnic group and gender

Sub-Sector, Ethnic Group and Gender	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Qualification Level					
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/Masters	Doctorates
Sub-Sector						
Universities	27%	42%	54%	50%	61%	61%
Polytechnics	33%	29%	46%	61%	64%	
Colleges of Education	35%	40%	68%		29%	
Wānanga	39%	40%	35%		22%	
Ethnic Group						
Māori	44%	40%	49%	46%	59%	70%
Pasifika	32%	31%	50%	44%	59%	
Asian	40%	37%	66%	51%	67%	72%
Pākehā/Other	33%	36%	56%	52%	61%	60%
Gender						
Females	38%	38%	57%	52%	62%	59%
Males	30%	32%	52%	48%	60%	64%
All Students						
	34%	36%	55%	50%	61%	61%

Table 9: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level, sub-sector and ethnic group

Qualification Level Started in 1998 and Ethnic Group	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Sub-Sector				
	Universities	Polytechnics	Colleges of Education	Wānanga	All Public Providers
<i>Certificate</i>					
Māori	24%	40%	18%	45%	44%
Pasifika	25%	33%		13%	32%
Asian	37%	39%			40%
Pākehā/Other	27%	33%	40%		33%
All Students	27%	33%	35%	39%	34%
<i>Diploma</i>					
Māori	44%	35%	39%	40%	40%
Pasifika	25%	27%	40%		31%
Asian	44%	28%	59%		37%
Pākehā/Other	44%	29%	41%		36%
All Students	42%	29%	40%	40%	36%
<i>Degree</i>					
Māori	47%	41%	62%	36%	49%
Pasifika	47%	41%	58%		50%
Asian	70%	35%			66%
Pākehā/Other	54%	49%	69%		56%
All Students	54%	46%	68%	35%	55%
<i>Postgraduate Certificate/ Diploma</i>					
Māori	46%				46%
Pasifika	44%				44%
Asian	51%				51%
Pākehā/Other	52%	63%			52%
All Students	50%	61%			50%
<i>Honours/Masters</i>					
Māori	62%			22%	59%
Pasifika	60%				59%
Asian	67%				67%
Pākehā/Other	61%	67%	33%		61%
All Students	61%	64%	29%	22%	61%
<i>Doctorate</i>					
Māori	70%				70%
Pasifika					
Asian	72%				72%
Pākehā/Other	60%				60%
All Students	61%				61%
<i>All Levels</i>					
Māori	44%	42%	54%	50%	50%
Pasifika	43%	35%	51%	15%	42%
Asian	67%	41%	64%	25%	60%
Pākehā/Other	53%	38%	57%	34%	48%
All Students	53%	38%	55%	46%	49%

Any group with fewer than 30 students has been excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 10: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level, sub-sector and gender

Qualification Level Started in 1998 and Gender	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Sub-Sector				
	Universities	Polytechnics	Colleges of Education	Wānanga	All Public Providers
<i>Certificate</i>					
Female	31%	37%	36%	48%	38%
Male	22%	30%	33%	29%	30%
All Students	27%	33%	35%	39%	34%
<i>Diploma</i>					
Female	47%	31%	41%	46%	38%
Male	35%	27%	37%	29%	32%
All Students	42%	29%	40%	40%	36%
<i>Degree</i>					
Female	55%	49%	69%	36%	57%
Male	52%	39%	62%	32%	52%
All Students	54%	46%	68%	35%	55%
<i>Postgraduate Certificate/ Diploma</i>					
Female	52%	62%			52%
Male	48%				48%
All Students	50%	61%			50%
<i>Honours/Masters</i>					
Female	62%		31%		62%
Male	60%	65%			60%
All Students	61%	64%	29%	22%	61%
<i>Doctorate</i>					
Female	59%				59%
Male	64%				64%
All Students	61%				61%
<i>All Levels</i>					
Female	55%	42%	58%	54%	53%
Male	51%	33%	46%	36%	43%
All Students	53%	38%	55%	46%	49%

Any group with fewer than 30 students has been excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 11: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level, sub-sector and age group

Qualification Level Started in 1998 and Age Group	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Sub-Sector				
	Universities	Polytechnics	Colleges of Education	Wānanga	All Public Providers
<i>Certificate</i>					
15-17	37%	44%		22%	44%
18-24	27%	39%	50%	29%	39%
25-39	26%	30%	30%	54%	32%
40 and over	27%	25%	36%	57%	27%
All Students	27%	33%	35%	39%	34%
<i>Diploma</i>					
15-17	40%	30%		12%	31%
18-24	46%	30%	47%	26%	38%
25-39	39%	28%	41%	42%	35%
40 and over	39%	32%	33%	55%	35%
All Students	42%	29%	40%	40%	36%
<i>Degree</i>					
15-17	73%	54%			72%
18-24	58%	54%	68%		60%
25-39	43%	41%	66%	38%	46%
40 and over	40%	41%	68%	31%	44%
All Students	54%	46%	68%	35%	55%
<i>Postgraduate Certificate/ Diploma</i>					
15-17					
18-24	52%				52%
25-39	50%	52%			50%
40 and over	49%	70%			50%
All Students	50%	61%			50%
<i>Honours/Masters</i>					
15-17					
18-24	63%				63%
25-39	60%				60%
40 and over	58%		34%		57%
All Students	61%	64%	29%	22%	61%
<i>Doctorate</i>					
15-17					
18-24	63%				63%
25-39	62%				62%
40 and over	58%				58%
All Students	61%				61%
<i>All Levels</i>					
15-17	67%	46%	57%	23%	50%
18-24	59%	43%	72%	34%	42%
25-39	46%	34%	53%	57%	60%
40 and over	45%	31%	43%	59%	48%
All Students	53%	38%	55%	46%	49%

Any group with fewer than 30 students has been excluded, however, totals are still provided where the sum of the suppressed groups is 30 or more.

Age as at 1 July in the starting year.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 12: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level, ethnic group and gender

Qualification Level Started in 1998 and Gender	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Ethnic Group				
	Māori	Pasifika	Asian	Pākehā/ Other	All TEI Students
<i>Certificate</i>					
Female	48%	36%	45%	38%	38%
Male	37%	29%	34%	29%	30%
All Students	44%	32%	40%	33%	34%
<i>Diploma</i>					
Female	42%	35%	42%	39%	38%
Male	36%	26%	31%	33%	32%
All Students	40%	31%	37%	36%	36%
<i>Degree</i>					
Female	52%	56%	70%	58%	57%
Male	45%	42%	63%	52%	52%
All Students	49%	50%	66%	56%	55%
<i>Postgraduate Certificate/ Diploma</i>					
Female	46%	46%	56%	54%	52%
Male	47%	43%	46%	50%	48%
All Students	46%	44%	51%	52%	50%
<i>Honours/Masters</i>					
Female	60%	58%	70%	62%	62%
Male	56%	62%	65%	60%	60%
All Students	59%	59%	67%	61%	61%
<i>Doctorate</i>					
Female				58%	59%
Male			72%	62%	64%
All Students	70%		72%	60%	61%
<i>All Levels</i>					
Female	55%	48%	63%	53%	53%
Male	44%	36%	56%	43%	43%
All Students	50%	42%	60%	48%	49%

Any group with fewer than 30 students has been excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 13: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level, ethnic group and age group

Qualification Level Started in 1998 and Age Group	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Ethnic Group				
	Māori	Pasifika	Asian	Pākehā/ Other	All TEI Students
<i>Certificate</i>					
15-17	42%	31%	50%	47%	45%
18-24	43%	35%	37%	40%	40%
25-39	45%	30%	41%	29%	33%
40 and over	43%	31%	38%	26%	29%
All Students	44%	32%	40%	33%	34%
<i>Diploma</i>					
15-17	29%		30%	33%	33%
18-24	36%	28%	28%	41%	39%
25-39	39%	31%	43%	34%	35%
40 and over	49%	38%	33%	34%	35%
All Students	40%	31%	37%	36%	36%
<i>Degree</i>					
15-17	54%		83%	71%	73%
18-24	56%	55%	73%	60%	61%
25-39	43%	45%	48%	47%	46%
40 and over	44%	36%	44%	45%	44%
All Students	49%	50%	66%	56%	55%
<i>Postgraduate Certificate/ Diploma</i>					
15-17					
18-24	43%	50%	53%	53%	52%
25-39	47%	41%	51%	51%	50%
40 and over	47%		47%	53%	52%
All Students	46%	44%	51%	52%	50%
<i>Honours/Masters</i>					
15-17					
18-24	69%	66%	62%	63%	63%
25-39	54%	52%	72%	58%	60%
40 and over	49%		68%	59%	58%
All Students	59%	59%	67%	61%	61%
<i>Doctorate</i>					
15-17					
18-24				61%	64%
25-39			71%	61%	62%
40 and over				58%	60%
All Students	70%		72%	60%	61%
<i>All Levels</i>					
15-17	45%	37%	75%	55%	53%
18-24	52%	47%	70%	58%	57%
25-39	50%	37%	54%	42%	43%
40 and over	48%	40%	45%	38%	39%
All Students	50%	42%	60%	48%	49%

Any group with fewer than 30 students has been excluded.

Age as at 1 July in the starting year.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 14: Five-year retention rates for domestic students starting a qualification in 1998 by qualification level, age group and gender

Qualification Level Started in 1998 and Gender	Percentage of Students Successfully Completed or Still Enrolled by end of 2002 by Age Group				
	15-17	18-24	35-39	40+	All TEI Students
<i>Certificate</i>					
Female	51%	45%	37%	34%	39%
Male	41%	35%	27%	21%	31%
All Students	45%	40%	33%	29%	34%
<i>Diploma</i>					
Female	38%	42%	37%	38%	39%
Male	28%	34%	32%	31%	32%
All Students	33%	39%	35%	35%	36%
<i>Degree</i>					
Female	75%	64%	50%	48%	58%
Male	69%	57%	40%	35%	52%
All Students	73%	61%	46%	44%	55%
<i>Postgraduate Certificate/ Diploma</i>					
Female		55%	52%	53%	53%
Male		49%	49%	50%	49%
All Students		52%	50%	52%	50%
<i>Honours/Masters</i>					
Female		67%	58%	59%	63%
Male		60%	62%	56%	60%
All Students		63%	60%	58%	61%
<i>Doctorate</i>					
Female		62%	58%	61%	60%
Male		65%	66%	58%	64%
All Students		64%	62%	60%	61%
<i>All Levels</i>					
Female	61%	62%	48%	45%	53%
Male	47%	52%	38%	31%	43%
All Students	53%	57%	43%	39%	49%

Any group with fewer than 30 students has been excluded.

Age as at 1 July in the starting year.

All Levels include students who change qualification level whereas rates for individual levels do not.

Completion Tables

Table 15: Completion rates for all students by year enrolled

Year Enrolled	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	425,550	21%					
2001	375,130	21%	33%				
2000	333,900	21%	32%	41%			

Table 16: Completion rates for all domestic students by year enrolled

Year Enrolled	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	386,550	21%					
2001	349,230	21%	33%				
2000	317,430	21%	32%	41%			

Table 17: Completion rates for all international students by year enrolled

Year Enrolled	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	39,000	20%					
2001	25,890	26%	37%				
2000	16,470	25%	38%	46%			

Table 18: Completion rates for all first-time students by year started

Year Started	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	172,850	17%					
2001	161,110	18%	26%				
2000	143,170	17%	24%	31%			

Table 19: Completion rates for all first-time domestic students by year started

Year Started	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	148,090	17%					
2001	143,890	17%	25%				
2000	132,400	17%	23%	30%			

Table 20: Completion rates for all first-time international students by year started

Year Started	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
2002	24,750	17%					
2001	17,220	24%	33%				
2000	10,780	21%	30%	37%			

Table 21: Completion rates for all domestic students starting a qualification by qualification level and year started at that level

Year Started Level	Students	Percentage of Students Successfully Completed					
		That Year	1 year later	2 years later	3 years later	4 years later	5 years later
Certificate							
2002	116,070	22%					
2001	104,510	21%	29%				
2000	90,760	21%	26%	28%			
Diploma							
2002	33,150	14%					
2001	34,910	15%	24%				
2000	32,590	15%	25%	30%			
Degree							
2002	35,990	2%					
2001	37,120	3%	6%				
2000	39,200	4%	7%	23%			
Postgraduate Certificate/Diploma							
2002	6,840	29%					
2001	6,640	31%	43%				
2000	7,230	30%	43%	49%			
Honours/Masters							
2002	6,390	16%					
2001	5,860	16%	32%				
2000	5,910	18%	36%	50%			
Doctorate							
2002	860	0%					
2001	770	0%	1%				
2000	840	1%	2%	4%			
All Levels							
2002	199,290	17%					
2001	189,820	16%	24%				
2000	176,530	16%	23%	29%			

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 22: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level for each sub-sector, ethnic group and gender

Sub-Sector, Ethnic Group and Gender	Percentage of Students Successfully Completed by end of 2002 by Qualification Level					
	Certificates	Diplomas	Degrees	Postgrad Cert/Dips	Honours/Masters	Doctorates
Sub-Sector						
Universities	28%	41%	45%	49%	59%	26%
Polytechnics	30%	25%	40%	61%	58%	
Colleges of Education	36%	37%	65%		13%	
Wānanga	30%	38%	30%		16%	
Ethnic Group						
Māori	36%	35%	39%	42%	50%	16%
Pasifika	29%	26%	33%	44%	53%	
Asian	38%	35%	55%	49%	66%	33%
Pākehā/Other	29%	32%	47%	50%	58%	26%
Gender						
Females	35%	34%	49%	51%	59%	23%
Males	26%	28%	41%	47%	58%	29%
All Students						
	30%	32%	46%	49%	59%	26%

Table 23: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level, sub-sector and ethnic group

Qualification Level Started in 1998 and Ethnic Group	Percentage of Students Successfully Completed by end of 2002 by Sub-Sector				
	Universities	Polytechnics	Colleges of Education	Wānanga	All Public Providers
<i>Certificate</i>					
Māori	23%	36%	18%	34%	36%
Pasifika	24%	30%		11%	29%
Asian	36%	37%			38%
Pākehā/Other	26%	29%	40%		29%
All Students	28%	30%	36%	30%	30%
<i>Diploma</i>					
Māori	42%	30%	37%	38%	35%
Pasifika	21%	21%	39%		26%
Asian	43%	26%	57%		35%
Pākehā/Other	42%	24%	38%		32%
All Students	41%	25%	37%	38%	32%
<i>Degree</i>					
Māori	36%	36%	55%	31%	39%
Pasifika	30%	33%	53%		33%
Asian	58%	28%			55%
Pākehā/Other	45%	43%	67%		47%
All Students	45%	40%	65%	30%	46%
<i>Postgraduate Certificate/ Diploma</i>					
Māori	42%				42%
Pasifika	43%				44%
Asian	50%				49%
Pākehā/Other	49%	63%			50%
All Students	49%	61%			49%
<i>Honours/Masters</i>					
Māori	54%			16%	50%
Pasifika	53%				53%
Asian	66%				66%
Pākehā/Other	59%	62%	13%		58%
All Students	59%	58%	13%	16%	59%
<i>Doctorate</i>					
Māori	16%				16%
Pasifika					
Asian	33%				33%
Pākehā/Other	26%				26%
All Students	26%				26%
<i>All Levels</i>					
Māori	34%	36%	50%	42%	39%
Pasifika	31%	31%	49%	14%	33%
Asian	58%	37%	61%		52%
Pākehā/Other	45%	31%	54%	29%	40%
All Students	45%	31%	52%	39%	40%

Any group with fewer than 30 students has been excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 24: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level, sub-sector and gender

Qualification Level Started in 1998 and Gender	Percentage of Students Successfully Completed by end of 2002 by Sub-Sector				
	Universities	Polytechnics	Colleges of Education	Wānanga	All Public Providers
<i>Certificate</i>					
Female	31%	34%	37%	35%	35%
Male	23%	26%	34%	25%	26%
All Students	28%	30%	36%	30%	30%
<i>Diploma</i>					
Female	47%	26%	38%	45%	34%
Male	33%	23%	36%	27%	28%
All Students	41%	25%	37%	38%	32%
<i>Degree</i>					
Female	48%	44%	66%	31%	49%
Male	42%	33%	57%	28%	41%
All Students	45%	40%	65%	30%	46%
<i>Postgraduate Certificate/ Diploma</i>					
Female	50%	62%			51%
Male	47%				47%
All Students	49%	61%			49%
<i>Honours/Masters</i>					
Female	60%		17%		59%
Male	59%	57%			58%
All Students	59%	58%	13%	16%	59%
<i>Doctorate</i>					
Female	23%				23%
Male	24%				29%
All Students	26%				26%
<i>All Levels</i>					
Female	47%	36%	55%	45%	44%
Male	42%	27%	43%	30%	35%
All Students	45%	31%	52%	39%	40%

Any group with fewer than 30 students has been excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 25: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level, sub-sector and age group

Qualification Level Started in 1998 and Age Group	Percentage of Students Successfully Completed by end of 2002 by Sub-Sector				
	Universities	Polytechnics	Colleges of Education	Wānanga	All Public Providers
<i>Certificate</i>					
15-17	39%	39%		17%	39%
18-24	28%	35%	51%	23%	35%
25-39	27%	27%	31%	40%	28%
40 and over	27%	23%	37%	47%	25%
All Students	28%	30%	36%	30%	30%
<i>Diploma</i>					
15-17	42%	27%		12%	29%
18-24	46%	26%	46%	26%	35%
25-39	38%	22%	38%	41%	30%
40 and over	37%	27%	29%	50%	31%
All Students	41%	25%	37%	38%	32%
<i>Degree</i>					
15-17	61%	38%			59%
18-24	50%	49%	66%		52%
25-39	34%	35%	63%	33%	37%
40 and over	31%	35%	65%	28%	36%
All Students	45%	40%	65%	30%	46%
<i>Postgraduate Certificate/ Diploma</i>					
15-17					
18-24	51%				51%
25-39	48%	52%			48%
40 and over	48%	70%			50%
All Students	49%	61%			49%
<i>Honours/Masters</i>					
15-17					
18-24	62%				62%
25-39	59%				58%
40 and over	51%		19%		49%
All Students	59%	58%	13%	16%	59%
<i>Doctorate</i>					
15-17					
18-24	34%				34%
25-39	26%				26%
40 and over	18%				18%
All Students	26%				26%
<i>All Levels</i>					
15-17	57%	39%	54%	19%	44%
18-24	50%	37%	70%	28%	47%
25-39	39%	28%	49%	47%	35%
40 and over	38%	26%	39%	50%	32%
All Students	45%	31%	52%	39%	40%

Any group with fewer than 30 students has been excluded, however, totals are still provided where the sum of the suppressed groups is 30 or more.

Age as at 1 July in the starting year.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 26: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level, ethnic group and gender

Qualification Level Started in 1998 and Gender	Percentage of Students Successfully Completed by end of 2002 by Ethnic Group				
	Māori	Pasifika	Asian	Pākehā/ Other	All TEI Students
<i>Certificate</i>					
Female	39%	33%	43%	33%	33%
Male	32%	25%	32%	24%	25%
All Students	36%	29%	38%	29%	30%
<i>Diploma</i>					
Female	37%	29%	39%	34%	34%
Male	31%	21%	29%	28%	28%
All Students	35%	26%	35%	32%	32%
<i>Degree</i>					
Female	41%	40%	60%	50%	49%
Male	34%	23%	49%	42%	41%
All Students	39%	33%	55%	47%	46%
<i>Postgraduate Certificate/ Diploma</i>					
Female	41%	45%	56%	51%	50%
Male	45%	43%	45%	48%	46%
All Students	42%	44%	49%	50%	49%
<i>Honours/Masters</i>					
Female	51%	53%	69%	58%	58%
Male	50%	52%	64%	58%	58%
All Students	50%	53%	66%	58%	59%
<i>Doctorate</i>					
Female				24%	23%
Male			35%	29%	29%
All Students	16%		33%	26%	26%
<i>All Levels</i>					
Female	42%	38%	57%	44%	44%
Male	35%	27%	47%	34%	35%
All Students	39%	33%	52%	40%	40%

Any group with fewer than 30 students has been excluded.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 27: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level, ethnic group and age group

Qualification Level Started in 1998 and Age Group	Percentage of Students Successfully Completed by end of 2002 by Ethnic Group				
	Māori	Pasifika	Asian	Pākehā/ Other	All TEI Students
<i>Certificate</i>					
15-17	34%	29%	46%	41%	39%
18-24	36%	31%	34%	35%	35%
25-39	36%	27%	39%	25%	28%
40 and over	37%	28%	36%	23%	25%
All Students	36%	29%	38%	29%	30%
<i>Diploma</i>					
15-17	24%		27%	30%	29%
18-24	32%	21%	27%	38%	35%
25-39	35%	26%	41%	29%	30%
40 and over	44%	36%	30%	29%	31%
All Students	35%	26%	35%	32%	32%
<i>Degree</i>					
15-17	40%		68%	58%	59%
18-24	44%	35%	59%	52%	52%
25-39	34%	29%	44%	37%	37%
40 and over	35%	30%	36%	37%	36%
All Students	39%	33%	55%	47%	46%
<i>Postgraduate Certificate/ Diploma</i>					
15-17					
18-24	42%	48%	52%	52%	51%
25-39	43%	43%	49%	48%	48%
40 and over	42%		46%	51%	50%
All Students	42%	44%	49%	50%	49%
<i>Honours/Masters</i>					
15-17					
18-24	64%	62%	61%	62%	62%
25-39	49%	48%	72%	56%	58%
40 and over	30%		66%	50%	49%
All Students	50%	53%	66%	58%	59%
<i>Doctorate</i>					
15-17					
18-24				33%	34%
25-39			32%	26%	26%
40 and over				19%	18%
All Students	16%		33%	26%	26%
<i>All Levels</i>					
15-17	36%	32%	63%	45%	44%
18-24	41%	35%	57%	49%	47%
25-39	38%	30%	50%	33%	35%
40 and over	39%	35%	41%	31%	32%
All Students	39%	33%	52%	40%	40%

Any group with fewer than 30 students has been excluded.

Age as at 1 July in the starting year.

All Levels include students who change qualification level whereas rates for individual levels do not.

Table 28: Five-year completion rates for domestic students starting a qualification in 1998 by qualification level, age group and gender

Qualification Level Started in 1998 and Gender	Percentage of Students Successfully Completed by end of 2002 by Age Group				All TEI Students
	15-17	18-24	35-39	40+	
<i>Certificate</i>					
Female	46%	40%	32%	30%	33%
Male	35%	30%	23%	18%	25%
All Students	39%	35%	28%	25%	30%
<i>Diploma</i>					
Female	33%	39%	32%	33%	34%
Male	25%	30%	27%	26%	28%
All Students	29%	35%	30%	31%	32%
<i>Degree</i>					
Female	64%	56%	40%	39%	49%
Male	53%	46%	31%	27%	41%
All Students	59%	52%	37%	36%	46%
<i>Postgraduate Certificate/ Diploma</i>					
Female		54%	49%	51%	50%
Male		48%	46%	48%	46%
All Students		51%	48%	50%	49%
<i>Honours/Masters</i>					
Female		66%	54%	50%	58%
Male		60%	61%	48%	58%
All Students		62%	58%	49%	59%
<i>Doctorate</i>					
Female		26%	25%	19%	23%
Male		40%	28%	17%	29%
All Students		34%	26%	18%	26%
<i>All Levels</i>					
Female	51%	52%	37%	35%	44%
Male	38%	41%	30%	24%	35%
All Students	44%	47%	35%	32%	40%

Any group with fewer than 30 students has been excluded.

Age as at 1 July in the starting year.

All Levels include students who change qualification level whereas rates for individual levels do not.

Progression Tables

Table 29: Progression in 2002 for domestic students completing in 2001 by sub-sector

Qualification Level Completed in 2001	Students Completing	Percentage of successfully completing students by their study status in 2002			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
Universities	31,520	18%	12%	10%	61%
Polytechnics	24,870	16%	23%	3%	58%
Colleges of Education	3,960	10%	8%	6%	76%
Wānanga	2,450	26%	33%	8%	33%
All Public Providers	62,810	17%	17%	7%	60%
All Private Providers	19,150	8%	20%	3%	69%
All Providers	81,960	15%	18%	6%	62%

Table 30: Progression in 2002 for domestic students completing in 2001 by qualification level and whether public or private

Qualification Level Completed in 2001	Students Completing	Percentage of successfully completing students by their study status in 2002			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>All Providers</i>					
Certificate	37,740	17%	25%	0%	59%
Diploma	13,790	13%	14%	9%	63%
Degree	21,240	15%	11%	10%	64%
Postgrad Cert/Dip	4,390	13%	7%	11%	70%
Honours/Masters	4,360	6%	12%	19%	64%
Doctorate	440	0%	2%	11%	88%
All Levels	81,960	15%	18%	6%	62%
<i>Public Providers</i>					
Certificate	23,740	21%	26%	0%	53%
Diploma	9,610	17%	12%	9%	61%
Degree	21,060	15%	11%	10%	64%
Postgrad Cert/Dip	3,640	14%	7%	11%	67%
Honours/Masters	4,320	6%	12%	19%	64%
Doctorate	440	0%	2%	11%	88%
All Levels	62,810	17%	17%	7%	60%
<i>Private Providers</i>					
Certificate	14,000	9%	22%	0%	68%
Diploma	4,190	5%	17%	10%	68%
Degree	180	7%	12%	13%	68%
Postgrad Cert/Dip	750	5%	2%	9%	84%
Honours/Masters	30	0%	0%	12%	88%
Doctorate					
All Levels	19,150	8%	20%	3%	69%

Table 31: Progression for domestic students completing a qualification at a public provider between 1997 and 2001, by year and qualification level completed

Year Completed	Qualification Level Completed	Students Completing	Percentage of successfully completing students by their study status in the following year			
			Continued Study at			Left Study
			Higher Level	Same Level	Lower Level	
2001	Certificate	23,740	21%	26%	0%	53%
	Diploma	9,610	17%	12%	9%	61%
	Degree	21,060	15%	11%	10%	64%
	Postgrad Cert/Dip	3,640	14%	7%	11%	67%
	Honours/Masters	4,320	6%	12%	19%	64%
	Doctorate	440	0%	2%	11%	88%
	All Levels	62,810	17%	17%	7%	60%
2000	Certificate	21,710	21%	24%	0%	55%
	Diploma	8,540	15%	11%	7%	68%
	Degree	20,490	14%	11%	9%	66%
	Postgrad Cert/Dip	3,600	15%	8%	8%	69%
	Honours/Masters	4,850	4%	11%	16%	69%
	Doctorate	430	0%	2%	12%	86%
	All Levels	59,620	16%	16%	6%	63%
1999	Certificate	21,880	20%	23%	0%	57%
	Diploma	8,460	15%	10%	6%	69%
	Degree	19,930	15%	10%	9%	66%
	Postgrad Cert/Dip	3,330	13%	6%	10%	72%
	Honours/Masters	5,100	5%	10%	16%	68%
	Doctorate	420	0%	3%	14%	83%
	All Levels	59,120	16%	15%	6%	64%
1998	Certificate	21,420	17%	21%	0%	62%
	Diploma	8,910	17%	9%	4%	69%
	Degree	17,890	16%	10%	8%	66%
	Postgrad Cert/Dip	3,210	13%	5%	10%	73%
	Honours/Masters	4,570	5%	12%	15%	69%
	Doctorate	360	0%	3%	13%	84%
	All Levels	56,360	16%	14%	5%	66%
1997	Certificate	20,320	16%	22%	0%	63%
	Diploma	7,970	14%	7%	4%	75%
	Degree	17,380	17%	10%	7%	66%
	Postgrad Cert/Dip	3,010	15%	5%	8%	72%
	Honours/Masters	3,880	5%	10%	15%	70%
	Doctorate	330	0%	1%	14%	85%
	All Levels	52,890	15%	14%	5%	67%

Table 32: Progression for domestic students completing a qualification in 2001 by qualification level and sub-sector

Qualification Level Completed and Sub-Sector	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>Certificates</i>					
Universities	4,400	32%	16%		52%
Polytechnics	17,390	18%	28%		54%
Colleges of Education	370	29%	15%		56%
Wānanga	1,590	24%	38%		38%
All Public Providers	23,740	21%	26%		53%
All Private Providers	14,000	9%	22%		68%
All Providers	37,740	17%	25%		59%
<i>Diplomas</i>					
Universities	2,860	18%	8%	6%	68%
Polytechnics	4,290	15%	15%	11%	59%
Colleges of Education	1,720	12%	11%	5%	72%
Wānanga	740	32%	22%	22%	23%
All Public Providers	9,610	17%	12%	9%	61%
All Private Providers	4,190	5%	17%	10%	68%
All Providers	13,790	13%	14%	9%	63%
<i>Degrees</i>					
Universities	16,150	18%	13%	10%	60%
Polytechnics	2,980	4%	7%	12%	77%
Colleges of Education	1,820	4%	3%	9%	85%
Wānanga	110	12%	37%	23%	29%
All Public Providers	21,060	15%	11%	10%	64%
All Private Providers	180	7%	12%	13%	68%
All Providers	21,220	15%	11%	10%	64%
<i>Postgraduate Certificates/Diplomas</i>					
Universities	3,460	14%	8%	11%	67%
Polytechnics	160	7%	3%	16%	74%
Colleges of Education					
Wānanga					
All Public Providers	3,640	14%	7%	11%	67%
All Private Providers	750	5%	2%	9%	84%
All Providers	4,390	13%	7%	11%	70%
<i>Honours/Masters</i>					
Universities	4,220	6%	12%	19%	64%
Polytechnics	60	0%	5%	13%	82%
Colleges of Education					
Wānanga					
All Public Providers	4,320	6%	12%	19%	64%
All Private Providers	30	0%	0%	12%	88%
All Providers	4,360	6%	12%	19%	64%
<i>Doctorates</i>					
Universities	440	0%	2%	11%	88%
Polytechnics					
Colleges of Education					
Wānanga					
All Public Providers	440	0%	2%	11%	88%
All Private Providers					
All Providers	440	0%	2%	11%	88%

Table 33: Progression for domestic students completing a qualification in 2001 by ethnic group and sub-sector

Ethnic Group and Sub-Sector	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>Māori</i>					
Universities	2,440	20%	11%	15%	54%
Polytechnics	4,380	18%	27%	6%	48%
Colleges of Education	460	14%	12%	9%	65%
Wānanga	2,290	27%	33%	8%	32%
All Public Providers	9,570	21%	24%	9%	47%
All Private Providers	4,220	8%	27%	2%	63%
All Providers	13,790	17%	25%	7%	52%
<i>Pasifika</i>					
Universities	920	25%	16%	8%	52%
Polytechnics	1,400	17%	23%	2%	58%
Colleges of Education	140	13%	7%	7%	72%
Wānanga	50	12%	29%	10%	50%
All Public Providers	2,510	19%	20%	5%	56%
All Private Providers	1,390	8%	19%	2%	72%
All Providers	3,900	15%	19%	4%	62%
<i>Asian</i>					
Universities	5,070	23%	17%	7%	54%
Polytechnics	1,520	17%	28%	2%	53%
Colleges of Education	130	13%	8%	1%	79%
Wānanga	0	33%	0%	0%	67%
All Public Providers	6,720	21%	19%	6%	54%
All Private Providers	1,780	7%	17%	2%	74%
All Providers	8,500	18%	19%	5%	58%
<i>Pākehā/Other</i>					
Universities	22,490	16%	11%	10%	64%
Polytechnics	17,350	15%	21%	3%	61%
Colleges of Education	3,240	9%	7%	6%	78%
Wānanga	110	19%	28%	4%	50%
All Public Providers	43,190	15%	15%	7%	64%
All Private Providers	11,660	9%	18%	3%	70%
All Providers	54,850	14%	16%	6%	65%
<i>All Students</i>					
Universities	31,520	18%	12%	10%	61%
Polytechnics	24,870	16%	23%	3%	58%
Colleges of Education	3,950	10%	7%	6%	76%
Wānanga	2,450	26%	33%	8%	33%
All Public Providers	62,810	17%	17%	7%	60%
All Private Providers	19,150	8%	20%	3%	69%
All Providers	81,960	15%	18%	6%	62%

Table 34: Progression for domestic students completing in 2001 by qualification level and ethnic group

Qualification Level Completed and Ethnic Group	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>Certificates</i>					
Māori	8,790	17%	31%	0%	52%
Pasifika	2,550	16%	23%	0%	61%
Asian	3,550	19%	25%	0%	56%
Pākehā/Other	22,430	16%	23%	0%	61%
All Students	37,740	17%	25%	0%	59%
<i>Diplomas</i>					
Māori	2,390	19%	16%	19%	46%
Pasifika	540	16%	9%	10%	65%
Asian	990	18%	16%	7%	59%
Pākehā/Other	9,690	11%	13%	7%	68%
All Students	13,790	13%	14%	9%	63%
<i>Degrees</i>					
Māori	1,950	14%	12%	18%	56%
Pasifika	620	16%	16%	10%	58%
Asian	2,710	19%	15%	8%	58%
Pākehā/Other	15,720	14%	10%	10%	67%
All Students	21,240	15%	11%	10%	64%
<i>Postgraduate Certificates/Diplomas</i>					
Māori	330	15%	3%	19%	62%
Pasifika	120	8%	8%	8%	76%
Asian	600	26%	10%	8%	56%
Pākehā/Other	3,310	10%	6%	11%	73%
All Students	4,390	13%	7%	11%	70%
<i>Honours/Masters</i>					
Māori	300	6%	16%	30%	48%
Pasifika	70	3%	16%	20%	61%
Asian	610	5%	13%	13%	68%
Pākehā/Other	3,330	6%	11%	19%	65%
All Students	4,360	6%	12%	19%	64%
<i>Doctorates</i>					
Māori	20	0%	0%	10%	90%
Pasifika	10	0%	0%	20%	80%
Asian	40	0%	2%	5%	93%
Pākehā/Other	370	0%	2%	11%	87%
All Students	440	0%	2%	10%	88%
<i>All Levels</i>					
Māori	13,790	17%	25%	7%	52%
Pasifika	3,900	15%	19%	4%	62%
Asian	8,500	18%	19%	5%	58%
Pākehā/Other	54,850	14%	16%	6%	65%
All Students	81,880	15%	17%	6%	62%

Table 35: Progression for domestic students completing a qualification in 2001 by sub-sector and gender

Gender and Sub-Sector	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>Females</i>					
Universities	18,660	18%	12%	10%	61%
Polytechnics	14,700	16%	21%	4%	58%
Colleges of Education	3,170	11%	8%	6%	75%
Wānanga	1,650	26%	34%	8%	31%
All Public Providers	38,180	17%	16%	7%	60%
All Private Providers	10,690	8%	21%	3%	69%
All Providers	48,870	15%	17%	6%	62%
<i>Males</i>					
Universities	12,860	17%	12%	10%	62%
Polytechnics	10,180	14%	25%	3%	58%
Colleges of Education	790	7%	5%	5%	82%
Wānanga	800	25%	30%	8%	38%
All Public Providers	24,620	16%	18%	6%	60%
All Private Providers	8,460	9%	20%	2%	69%
All Providers	33,070	14%	18%	5%	62%
<i>All Students</i>					
Universities	31,520	18%	12%	10%	61%
Polytechnics	24,870	16%	23%	3%	58%
Colleges of Education	3,960	10%	8%	6%	76%
Wānanga	2,450	26%	33%	8%	33%
All Public Providers	62,800	17%	17%	7%	60%
All Private Providers	19,150	8%	20%	3%	69%
All Providers	81,940	15%	18%	6%	62%

Table 36: Progression for domestic students completing a qualification in 2001 by qualification level and gender

Qualification Level Completed and Gender	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>Certificates</i>					
Females	51,640	19%	25%		56%
Males	36,850	16%	25%		59%
All Students	88,500	18%	25%		57%
<i>Diplomas</i>					
Females	8,850	14%	14%	10%	62%
Males	4,940	14%	13%	9%	64%
All Students	13,790	14%	14%	9%	63%
<i>Degrees</i>					
Females	13,180	14%	10%	11%	65%
Males	8,050	16%	12%	10%	62%
All Students	21,230	15%	11%	10%	64%
<i>Postgraduate Certificates/Diplomas</i>					
Females	2,690	12%	7%	11%	70%
Males	1,700	15%	7%	11%	67%
All Students	4,390	13%	7%	11%	69%
<i>Honours/Masters</i>					
Females	2,450	6%	12%	19%	63%
Males	1,900	5%	12%	18%	65%
All Students	4,350	6%	12%	18%	64%
<i>Doctorates</i>					
Females	190		2%	12%	86%
Males	250		2%	10%	89%
All Students	440		1%	11%	88%
<i>All Levels</i>					
Females	190	16%	17%	6%	61%
Males	250	15%	18%	6%	62%
All Students	440	15%	18%	6%	62%

Table 37: Progression for domestic students completing a qualification in 2001 by sub-sector and age group

Age Group and Sub-Sector	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
15-17					
Universities	160	41%	19%	0%	40%
Polytechnics	1,700	14%	32%	0%	54%
Colleges of Education					
Wānanga	70	20%	45%	5%	30%
All Public Providers	1,930	16%	31%	0%	52%
All Private Providers	1,180	5%	25%	3%	67%
All Providers	3,110	12%	29%	1%	58%
18-24					
Universities	16,690	20%	13%	10%	57%
Polytechnics	8,700	18%	22%	3%	56%
Colleges of Education	1,200	8%	6%	5%	81%
Wānanga	330	21%	36%	6%	37%
All Public Providers	26,930	19%	16%	7%	58%
All Private Providers	7,230	11%	19%	3%	67%
All Providers	34,160	17%	17%	6%	60%
35-39					
Universities	9,560	16%	10%	9%	65%
Polytechnics	8,780	16%	22%	4%	58%
Colleges of Education	1,370	10%	6%	7%	76%
Wānanga	1,040	24%	33%	10%	33%
All Public Providers	20,750	16%	16%	7%	61%
All Private Providers	7,140	7%	20%	3%	70%
All Providers	27,880	14%	17%	6%	63%
40 and over					
Universities	5,110	13%	10%	9%	68%
Polytechnics	5,690	12%	21%	4%	63%
Colleges of Education	1,370	11%	10%	7%	72%
Wānanga	1,010	30%	31%	6%	33%
All Public Providers	13,180	14%	16%	7%	63%
All Private Providers	3,590	6%	21%	2%	71%
All Providers	16,760	12%	17%	6%	65%
All Students					
Universities	31,520	18%	12%	10%	61%
Polytechnics	24,870	16%	23%	3%	58%
Colleges of Education	3,950	10%	8%	6%	76%
Wānanga	2,450	26%	33%	8%	33%
All Public Providers	62,650	17%	17%	7%	60%
All Private Providers	19,150	8%	20%	3%	69%
All Providers	81,770	15%	18%	6%	62%

Table 38: Progression for domestic students completing a qualification in 2001 by qualification level and age group

Qualification Level Completed and Age Group	Students Completing	Percentage of successfully completing students by their study status in the following year			
		Continued Study at			Left Study
		Higher Level	Same Level	Lower Level	
<i>Certificates</i>					
15-17	2,830	13%	30%	0%	57%
18-24	12,770	22%	24%	0%	54%
25-39	13,580	16%	25%	0%	60%
40 and over	8,550	12%	24%	0%	64%
All Students	37,740	17%	25%	0%	59%
<i>Diplomas</i>					
15-17	290	5%	15%	14%	66%
18-24	5,030	15%	13%	8%	64%
25-39	5,210	13%	13%	10%	64%
40 and over	3,260	13%	16%	10%	61%
All Students	13,790	13%	14%	9%	63%
<i>Degrees</i>					
15-17					
18-24	13,350	16%	13%	10%	61%
25-39	5,290	12%	8%	11%	69%
40 and over	2,600	11%	7%	12%	70%
All Students	21,240	15%	11%	10%	64%
<i>Postgraduate Certificates/Diplomas</i>					
15-17					
18-24	1,250	11%	4%	13%	73%
25-39	1,880	14%	7%	11%	69%
40 and over	1,260	12%	8%	10%	69%
All Students	4,390	13%	7%	11%	70%
<i>Honours/Masters</i>					
15-17					
18-24	1,760	5%	14%	21%	60%
25-39	1,630	6%	11%	17%	66%
40 and over	960	5%	11%	16%	68%
All Students	4,360	6%	12%	19%	64%
<i>Doctorates</i>					
15-17					
18-24					
25-39	280	0%	2%	11%	88%
40 and over	160	0%	2%	10%	88%
All Students	440	0%	2%	11%	88%
<i>All Levels</i>					
15-17	3,120	12%	29%	1%	58%
18-24	34,160	17%	17%	6%	60%
25-39	27,890	14%	17%	6%	63%
40 and over	16,780	12%	17%	6%	65%
All Students	81,950	15%	18%	6%	62%

Table 39: Progression for domestic students from qualification level completed in 2001 to qualification level enrolled in 2002 by sub-sector

Qualification Level Completed in 2001	Qualification Level Enrolled in 2002	Universities	Polytechnics	Colleges of Education	Wānanga	All Private Providers	All Public Providers
Certificate	Certificate	16%	28%	15%	38%	22%	25%
	Diploma	11%	10%	8%	13%	5%	8%
	Degree	19%	7%	17%	9%	4%	7%
	Post Grad Cert/Dip	1%	0%	2%	0%	0%	0%
	Honours/Masters	1%	0%	2%	2%	0%	0%
	Doctorate	0%	0%	1%	0%	0%	0%
	Left Study	52%	54%	56%	38%	68%	59%
		100%	100%	100%	100%	100%	100%
Diploma	Certificate	6%	11%	5%	22%	10%	9%
	Diploma	8%	15%	11%	22%	17%	14%
	Degree	11%	14%	10%	30%	5%	11%
	Post Grad Cert/Dip	2%	1%	1%	0%	0%	1%
	Honours/Masters	4%	1%	2%	2%	0%	1%
	Doctorate	0%	0%	0%	0%	0%	0%
	Left Study	68%	59%	72%	23%	68%	63%
		100%	100%	100%	100%	100%	100%
Degree	Certificate	5%	6%	4%	21%	9%	5%
	Diploma	5%	6%	5%	2%	4%	5%
	Degree	13%	7%	3%	37%	12%	11%
	Post Grad Cert/Dip	8%	2%	1%	1%	3%	7%
	Honours/Masters	9%	2%	3%	11%	4%	8%
	Doctorate	0%	0%	0%	0%	1%	0%
	Left Study	60%	77%	85%	29%	68%	64%
		100%	100%	100%	100%	100%	100%
Post Grad Cert/Dip	Certificate	5%	11%			5%	5%
	Diploma	2%	2%			1%	2%
	Degree	4%	3%			3%	4%
	Post Grad Cert/Dip	8%	3%			2%	7%
	Honours/Masters	13%	7%			5%	12%
	Doctorate	1%	0%			0%	1%
	Left Study	67%	74%			84%	70%
		100%	100%			100%	100%
Honours/Masters	Certificate	5%	10%			6%	5%
	Diploma	2%	2%			3%	3%
	Degree	6%	2%			3%	6%
	Post Grad Cert/Dip	5%	0%			0%	5%
	Honours/Masters	12%	5%			0%	12%
	Doctorate	6%	0%			0%	6%
	Left Study	64%	82%			88%	64%
		100%	100%			100%	100%
Doctorate	Certificate	2%					2%
	Diploma	1%					1%
	Degree	3%					3%
	Post Grad Cert/Dip	2%					2%
	Honours/Masters	2%					2%
	Doctorate	2%					2%
	Left Study	88%					88%
		100%					100%

References

- DEST (1999), Completions, Undergraduate Academic Outcomes for 1992 Commencing Students. <http://www.dest.gov.au/archive/highered/occpaper/99G/contents.htm>.
- DEST (2001a), Characteristics and Performance Indicators of Australian Higher Education Institutions, 2000. 01-B, Occasional Paper Series.
- DEST (2001b), Undergraduate Completion Rates – An Update. <http://www.detya.gov.au/highered/occpaper/01f/default.htm>.
- DEST (2001c), *Postgraduate Completion Rates*. DEST Occasional Paper Series. Available on website: www.detya.gov.au.
- DEST (2002), **Higher Education Outcome Indicators, Sources and Methods**, <http://www.detya.gov.au/archive/highered/statistics/outcomes/default.htm#adjusted>.
- HEFCE (2002), Performance Indicators in Higher Education in the UK, <http://www.hefce.ac.uk/Learning/perfind/2002>.
- Ministry of Education, Data Management & Analysis, <http://www.minedu.govt.nz/index.cfm?layout=document&documentid=7116>.
- Ministry of Education (2003) Participation in Tertiary Education 2003.
- Ministry of Education (2004a) Measuring Retention, Completion & Progression in Tertiary Education, A Discussion Paper. www.minedu.govt.nz
- Ministry of Education (2004b). Retention, Completion & Progression in Tertiary Education 2003, Technical Documentation. www.minedu.govt.nz.
- NCES (2002a), The Condition of Education 2002, NCES 2002-25, indicators 23-25, 27,29-30, 32, 35. <http://nces.ed.gov/programs/coe/list/index.asp>.
- NCES (2002b), Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later, Appendix A. NECS 2003-151. <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003151>.
- OECD (2002). Education at a Glance, OECD Indicators 2002.
- OECD (2003). Education at a Glance, OECD Indicators 2003.

